HEALTH SCIENCES LIBRARY
UNIVERSITY OF MARYLAND
BALTIMORE

The Journal

of the

Michigan State Medical Society

Published under the Direction
of The Council

Publication Committee

Bradley M. Harris, M.D., Chairman
Wm. Bromme, M.D.
H. J. Meier, M.D.
E. S. Oldham, M.D.
C. N. Hoyt, M.D.
O. J. Johnson, M.D.

Wilfrid Haughey, A.B., A.M., M.D.
Editor

L. J. Bailey, M.D.
Assistant Editor

D. Bruce Wiley, M.D., Secretary and Business Manager
Wm. J. Burns, LL.B., Executive Director

VOLUME 58
1959

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 JANUARY, 1959 NUMBER 1

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
C. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage; Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
R. L. Novy, M.D., Detroit.....1960
W. D. Barrett, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

W. W. Babcock, M.D., Detroit.....1959
E. F. Sladek, M.D., Traverse City.....1959
O. J. Johnson, M.D., Bay City.....1959
L. R. Leader, M.D., Detroit.....1960
Wm. Bromme, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit

Make new

Panalba*

(PANmycin† Phosphate plus ALBAmycin**)

your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.



Antibiotic forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Tetracycline phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride ..... 250 mg.
Novobiocin (as novobiocin sodium) ..... 125 mg.

2. Panalba KM,†† Flavored Granules, 60 cc. size bottle. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains:

Tetracycline (tetracycline) equivalent to tetracycline hydrochloride ..... 125 mg.
Novobiocin (as novobiocin calcium) ..... 62.5 mg.
Potassium metaphosphate ..... 100 mg.

Dosage:

Panalba Capsules. Usual adult dosage is 1 or 2 capsules 3 or 4 times a day.

Panalba KM Granules

For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 30 lbs. of body weight per day, administered in 3 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

Committees of the Council 1958-1959

COUNTY SOCIETIES COMMITTEE

W. M. LeFevre, M.D., *Chairman*.....
289 W. Western, Muskegon
W. W. Babcock, M.D.....868 Fisher Bldg., Detroit
H. H. Hiscock, M.D.....
1315 Mott Foundation Building, Flint
O. J. Johnson, M.D.....207 N. Walnut, Bay City
B. T. Montgomery, M.D.....
309 Ashmun St., Sault Ste. Marie
D. G. Pike, M.D.....876 E. Front Street, Traverse City

FINANCE COMMITTEE

Ralph W. Shook, M.D., *Chairman*.....
611 American National Bank Bldg., Kalamazoo
C. N. Hoyt, M.D.....804 Huron Ave., Port Huron
O. B. McGillicuddy, M.D.....
1816 Michigan National Tower, Lansing
G. Thomas McKean, M.D.....
1515 David Whitney Bldg., Detroit
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
T. P. Wickliffe, M.D.....1167 Calumet Avenue, Calumet

PUBLICATION COMMITTEE

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
Wm. Bromme, M.D.....318 Professional Bldg., Detroit
H. J. Meier, M.D.....87 W. Pearl, Coldwater
E. S. Oldham, M.D.....Breckenridge
C. Allen Payne, M.D.....
1840 Wealthy St., S.E., Grand Rapids

ADVISORY COMMITTEE OF PAST PRESIDENTS

L. J. Hirschman, M.D., *Chairman*.....
2619 Munson Ave., Traverse City
B. R. Corbus, M.D., *Vice Chairman*.....
325 Union Ave., S.E., Grand Rapids
Otto O. Beck, M.D.....308 Wabeek Bldg., Birmingham
H. R. Carstens, M.D.....83 Longhill St., Springfield, Mass.
Henry Cook, M.D.....346 Saginaw, Flint
H. H. Cummings, M.D.....326 N. Ingalls St., Ann Arbor
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
Wilfrid Haughey, M.D.....610 Post Bldg., Battle Creek
R. J. Hubbell, M.D.....252 E. Lovell St., Kalamazoo
L. W. Hull, M.D.....20115 Canterbury Rd., Detroit 21
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
W. S. Jones, M.D.....P.O. Box 76, Menominee
R. L. Novy, M.D.....855 Fisher Bldg., Detroit
G. C. Penberthy, M.D.....
1515 David Whitney Bldg., Detroit
J. M. Robb, M.D.....633 David Whitney Bldg., Detroit
E. F. Sladek, M.D.....123 E. Front St., Traverse City
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
C. E. Umphrey, M.D...15300 W. McNichols Rd., Detroit
P. R. Urmston, M.D.....916 Washington Ave., Bay City
Arch Walls, M.D.....17201 W. McNichols Rd., Detroit

LIAISON COMMITTEE WITH MICHIGAN MEDICAL SCHOOLS

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
G. B. Saltonstall, M.D.....Charlevoix
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
H. A. Towsley, M.D.....1000 Berkshire, Ann Arbor
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

PERMANENT CONFERENCE COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION, MICHIGAN LEAGUE FOR NURSING, AND MICHIGAN STATE NURSES ASSOCIATION

E. M. Vardon, M.D., *Chairman*.....
12897 Woodward Ave., Highland Park, 3
M. W. Buckborough, M.D...511 Huron St., South Haven
E. G. Merritt, M.D.....10 Peterboro, Detroit
J. D. Miller, M.D.....50 College Ave., S.E. Grand Rapids
J. W. Rice, M.D.....421 McNeal St., Jackson
J. A. Witter, M.D.....344 Glendale Ave., Detroit

COMMITTEE ON AWARDS

L. Fernald Foster, M.D., *Chairman*.....
7th Floor, 441 E. Jefferson, Detroit
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
Wilfrid Haughey, M.D.....610 Post Bldg., Battle Creek

COMMITTEE ON COURSES ON MEDICAL ECONOMICS AND ETHICS

C. Howard Ross, M.D., *Chairman*.....
715 N. University Ave., Ann Arbor
G. L. Coan, M.D.....2336 Van Alstyne Blvd., Wyandotte
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
C. J. France, M.D.....838 Berkshire, Grosse Pointe 30
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
J. M. Sheldon, M.D.....2121 Tuomy Rd., Ann Arbor
R. W. Teed, M.D.....2300 Melrose, Ann Arbor

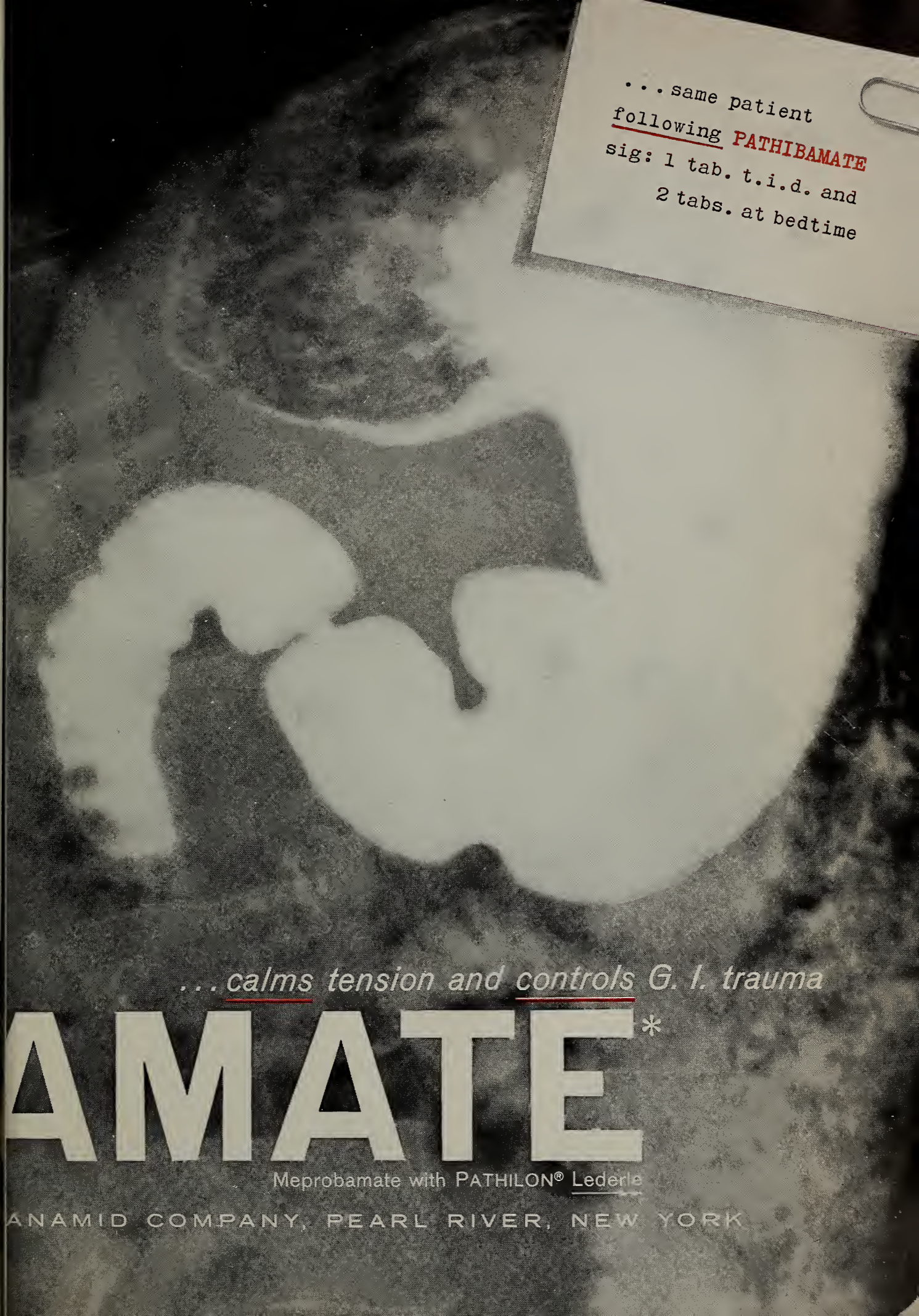
COMMITTEE ON ARBITRATION

J. D. Fryfogle, M.D., *Chairman*.....
Medical Concourse, Northland Center, Detroit 35
W. L. Brosius, M.D.....16150 Sorrento, Detroit 35
E. L. Cooper, M.D.....914 Shirley Drive, Birmingham
M. S. Dennis.....751 S. Military St., Dearborn
H. J. F. Kullman, M.D.....V. A. Hospital, Dearborn
Mr. W. W. Boyles, *Advisor*.....441 E. Jefferson, Detroit

COMMITTEE ON NATIONAL DEFENSE

M. L. Lichter, M.D., *Chairman*.....
2900 Oakwood Blvd., Melvindale
C. P. Anderson, M.D.....16733 Plainview Rd., Detroit 19
Mr. Jacques Cousins.....1084 Penobscot Bldg., Detroit
Douglas H. Fryer, M.D.....
Michigan Department of Health, Lansing
A. C. Furstenberg, M.D.....1313 E. Ann St., Ann Arbor
R. F. Hague, M.D.....210 E. Court St., Flint 3
R. L. Mainwaring, M.D.....1910 Russell, Dearborn
J. D. Miller, M.D.....
50 College Ave., S.E., Grand Rapids 3
G. L. Otis, M.D.....525 Wildwood Ave., Jackson
R. F. Powers, M.D.....142 Wylie, Saginaw
W. B. Prothro, M.D.....
303 Ionia Ave., N.W., Grand Rapids
C. J. Sprunk, M.D.....2900 Oakwood Blvd., Melvindale
M. E. Wehner, M.D.....131 River St., Manistique
Mr. Ronald Yaw.....
Blodgett Memorial Hospital, Grand Rapids
Isabelle Ryer, R. N., *Advisor*....334 Bates Street, Detroit
W. W. Armistead, D.V.M., *Advisor*.....
School of Vet. Medicine, M.S.U., East Lansing
D. D. Smith, D.D.S., *Advisor*.....401 River St., Manistee
H. B. Latourette, M.D., *Advisor*.....
1313 E. Ann St., Ann Arbor

(Continued on Page 12)


. . . same patient
following PATHIBAMATE
sig: 1 tab. t.i.d. and
2 tabs. at bedtime
. . . calms tension and controls G. I. trauma
AMATE*
Meprobamate with PATHILON® Lederle
ANAMID COMPANY, PEARL RIVER, NEW YORK

(Continued from Page 8)

LIAISON COMMITTEE WITH MICHIGAN VETERANS ORGANIZATIONS

William Bromme, M.D., *Chairman*.....
318 Professional Bldg., Detroit
L. C. Carpenter, M.D.....
50 College Ave., S.E. Grand Rapids
W. S. Jones, M.D.....P.O. Box 76, Menominee
J. E. Manning, M.D.....815 N. Michigan, Saginaw
E. F. Sladek, M.D.....123 E. Front, Traverse City
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek

COMMITTEE ON RURAL MEDICAL SERVICE

H. B. Zemmer, M.D., *Chairman*....311 Clay St., Lapeer
D. C. Bloemendaal, M.D.....351 N. Main, Zeeland
J. H. Fyvie, M.D.....202 S. Cedar St., Manistique
T. B. Hill, M.D.....710 N. Monroe, Lowell
B. L. Masters, M.D.....111 W. Dayton, Fremont
F. D. Richards, M.D.....Dewitt, Michigan
J. R. Rodger, M.D.....Bellaire
R. W. Spalding, M.D.....Box 900, Lansing
C. F. Wible, M.D.....Sebewaing

SPECIAL COMMITTEE TO MEET WITH MICHIGAN DEPARTMENT OF SOCIAL WELFARE

G. W. Slagle, M.D., *Chairman*.....
203 N. E. Capitol Ave., Battle Creek
F. L. Doran, M.D.....110 Fulton St., E., Grand Rapids 2
Wilfrid Haughey, M.D.....610 Post Building, Battle Creek
L. E. Himler, M.D.....Mercywood Hospital, Ann Arbor
Milton Shaw, M.D.....320 Townsend, Lansing

MEDICAL PROCUREMENT ADVISORY COMMITTEE

C. I. Owen, M.D., *Chairman*.....Grace Hospital, Detroit
M. J. Capron, M.D.....618 Post Bldg., Battle Creek
W. H. Huron, M.D.....106 W. "B" St., Iron Mountain
E. C. Miller, M.D.....101 W. John St., Bay City
E. A. Oakes, M.D.....401 River St., Manistee
G. C. Penberthy, M.D.....
1515 David Whitney Bldg., Detroit
H. H. Stryker, M.D.....903 Edgemoor, Kalamazoo

COMMITTEE ON BLOOD BANKS

R. L. Mainwaring, M.D., *Chairman*.....
1910 Russell, Dearborn
J. H. Ahronheim, M.D.....
Foote Memorial Hospital, Jackson
W. G. Gamble, Jr., M.D.....2010 5th Ave., Bay City
E. R. Jennings, M.D.....432 E. Hancock, Detroit 1
J. A. Kasper, M.D.....19953 Clairview Ct., Detroit 36
D. L. Kessler, M.D.....
1610 Robinson Rd., S.E. Grand Rapids 6
R. E. Lininger, M.D.....2712 Highland Ct., St. Joseph
L. W. Walker, M.D.....1302 Pershing Dr., Lansing 10

HOSPITAL RELATIONS COMMITTEE

Ralphael Altman, M.D., *Chairman*.....
5057 Woodward Ave., Detroit 2
Hugh M. Fuller, M.D...1553 Woodward Ave., Detroit 26
A. H. Kretchmar, M.D.....460 S. Saginaw, Flint 10
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
E. P. Vary, M.D.....460 S. Saginaw St., Flint 3

LIAISON COMMITTEE WITH MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

G. B. Saltonstall, M.D., *Chairman*.....Charlevoix
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
A. C. Furstenberg, M.D.....1313 E. Ann St., Ann Arbor
G. H. Scott, Ph.D.....
Wayne State University College of Medicine, Detroit
E. W. Schnoor, M.D.....
844 Iroquois Dr., S. E., Grand Rapids 6
E. C. Swanson, M.D.....220 N. Main, Vassar

LIAISON COMMITTEE WITH STATE EXECUTIVE OFFICE

G. B. Saltonstall, M.D., *Chairman*.....Charlevoix
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
B. M. Harris, M.D.....27 S. Prospect, Ypsilanti
K. H. Johnson, M.D.....
1116 Michigan National Tower, Lansing
Ralph W. Shook, M.D.....
611 American Nat'l Bank Bldg., Kalamazoo
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

COMMITTEE ON "BIG LOOK"

W. S. Jones, *Chairman*.....P.O. Box 76, Menominee
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
K. H. Johnson, M.D.....1116 Mich. Nat'l Tower, Lansing
O. B. McGillicuddy, M.D.....
1816 Michigan Nat'l Tower, Lansing
G. B. Saltonstall, M.D.....Charlevoix
Ralph W. Shook, M.D.....
611 American Nat'l Bank Bldg., Kalamazoo
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
M. A. Darling, M.D.....673 Fisher Bldg., Detroit

SPECIAL COMMITTEE ON VA HOMETOWN MEDICAL CARE PROGRAM

William Bromme, M.D., *Chairman*.....
318 Professional Bldg., Detroit
H. Waldo Bird, Jr., M.D.....1313 E. Ann St., Ann Arbor
James E. Croushore, M.D...3001 W. Grand Blvd., Detroit
W. S. Jones, M.D.....P.O. Box 76, Menominee
G. Thomas McKean, M.D.....
1515 David Whitney Bldg., Detroit
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
William A. Scott, M.D.....252 E. Lovell, Kalamazoo
Mr. J. C. Ketchum.....441 E. Jefferson, Detroit

RELATIVE VALUE SCALE COMMITTEE

L. R. Leader, M.D., *Chairman*.....
1553 Woodward, Detroit 26
F. C. Brace, M.D.....1498 Lake Dr., S.E., Grand Rapids
H. T. Caumartin, M.D.....
1537 S. Washington Ave., Saginaw
A. J. Day, M.D.....245 Cloverly Dr., Detroit 36
H. A. Furlong, M.D.....35 W. Huron St., Pontiac
A. J. Neerken, M.D.....
1318 American Nat'l Bank, Kalamazoo

(Continued on Page 16)

more potent and comprehensive treatment than salicylate alone

assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more conservative and manageable than full-dosage corticosteroid therapy—

much less likelihood of treatment-interrupting side effects[1-6] . . . reduces possibility of residual injury . . . simple, flexible dosage schedule

THERAPY SHOULD BE INDIVIDUALIZED

acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.



in any case it calls for

Sigmagen®

corticoid-salicylate compound tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Schering

SG-J-618

(Continued from Page 12)

MEDICAL CARE INSURANCE COMMITTEE

M. L. Lichter, M.D., *Chairman*.....
2900 Oakwood Blvd., Melvindale
J. J. Lightbody, M.D.....
501 David Whitney Bldg., Detroit
J. W. Logie, M.D.....833 Lake Dr., S.E., Grand Rapids
R. L. Mainwaring, M.D.....1910 Russell, Dearborn
D. G. Pike, M.D.....876 E. Front, Traverse City
F. C. Ryan, M.D.....507 S. Burdick St., Kalamazoo
W. F. Strong, M.D.....Ontonagon

COMMITTEE ON SELECTION OF ASSISTANT SECRETARY AND DIRECTOR OF SCIENTIFIC ACTIVITY

Ralph W. Shook, M.D., *Chairman*.....
611 American Nat'l Bnk. Bldg., Kalamazoo
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
W. M. LeFevre, M.D.....289 W. Western, Muskegon
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
G. B. Saltonstall, M.D.....Charlevoix
L. Fernald Foster, M.D., *Advisor*.....
7th Floor, 441 E. Jefferson, Detroit

COMMITTEE TO REVIEW THE PROBLEM OF MEDICAL PROFESSIONAL LIABILITY

C. E. Umphrey, M.D., *Chairman*.....
15300 McNichols Rd., Detroit
Mr. George H. Cary, LL.B.....1805 Ford Bldg., Detroit
Charles H. Clifford, M.D.....10 Peterboro St., Detroit 1
Mr. Lester P. Dodd, LL.B.....1604 Dime Bldg., Detroit
H. F. Falls, M.D.....University Hospital, Ann Arbor
E. Walter Hall, M.D.....10 Peterboro, Detroit 1
F. B. MacMillan, M.D.....1553 Woodward, Detroit
C. H. Ross, M.D.....715 N. University Ave., Ann Arbor
Arthur J. Vorwald, M.D.....1401 Rivard St., Detroit 7

ADVISORY COMMITTEE TO MICHIGAN MULTIPLE SCLEROSIS CENTER

Russell N. DeJong, M.D., *Chairman*.....
1313 E. Ann St., Ann Arbor
James W. Nunn, M.D.....106 W. Davison, Detroit 3
J. S. Rozan, M.D.....103 N. Washington Ave., Lansing 16

HEALING ARTS STUDY COMMITTEE

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
F. E. Ludwig, M.D.....916 7th St., Port Huron
G. B. Saltonstall, M.D.....Charlevoix
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
H. B. Zemmer, M.D.....311 Clay St., Lapeer

MSMS REPRESENTATIVES: LIAISON COMMITTEE TO MICHIGAN SOCIETY OF NEUROLOGY AND PSYCHIATRY AND MICHIGAN PSYCHOLOGICAL SOCIETY

Z. S. Bohn, M.D., *Chairman*..10 Peterboro St., Detroit 1
P. A. Martin, M.D.....17185 Muirland, Detroit
H. B. Zemmer, M.D.....311 Clay St., Lapeer

COMMITTEE ON VOCATIONAL REHABILITATION

F. C. Swartz, M.D., *Chairman*.....
215 N. Walnut, Lansing
John G. Bielawski, M.D.....
8124 E. Morrow Circle, Detroit 4
John O. Goodsell, M.D.....408 S. Jefferson, Saginaw
W. R. Klunzinger, M.D.....326 W. Ionia St., Lansing
A. S. Narotzky, M.D.....Miracle Circle, Ishpeming
James A. Rae, Jr., M.D.....1313 E. Ann St., Ann Arbor
John M. Schwartz, M.D.....4300 S. Saginaw St., Flint 2

LIAISON COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION

L. Fernald Foster, M.D., *Chairman*.....
7th Floor, 441 E. Jefferson, Detroit
C. Allen Payne, M.D.....
1840 Wealthy St. S.E., Grand Rapids
W. S. Reveno, M.D.....3001 W. Grand Blvd., Detroit 2
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

LIAISON STUDY COMMITTEE ON HOSPITAL STAFF PAYMENTS WITH MICHIGAN MEDICAL SERVICE

Muir Clapper, M.D., *Chairman*.....
6294 McClellan Ave., Detroit 13
B. E. Brush, M.D.....2799 W. Grand Blvd., Detroit 2
O. B. McGillicuddy, M.D.....
1816 Michigan National Tower, Lansing
H. C. Mack, M.D.....3011 W. Grand Blvd., Detroit 2
R. B. Nelson, M.D.....1313 E. Ann St., Ann Arbor
J. R. Pedden, M.D...445 Cherry St. S.E., Grand Rapids 3
Julien Priver, M.D.....6741 W. Outer Dr., Detroit 35
J. W. Rice, M.D.....421 McNeal, Jackson
C. K. Stroup, M.D.....2002 E. Court St., Flint 3

COMMITTEE TO STUDY UTILIZATION OF VACANT TB FACILITIES FOR CHRONIC DISEASES

R. L. Rapport, M.D., *Chairman*..503 S. Saginaw, Flint 3
J. G. Bielawski, M.D.....8124 E. Morrow Circle, Detroit 4
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
J. L. Isbister, M.D.....
Michigan Dept. of Health, Lansing
I. A. LaCore, M.D.....Pontiac State Hospital, Pontiac
A. Hazen Price, M.D.....62 W. Kirby, Detroit
J. M. Sheldon, M.D.....2121 Tuomy Rd., Ann Arbor
G. T. McKean, M.D...1515 David Whitney Bldg., Detroit

LIAISON COMMITTEE WITH STATE BAR OF MICHIGAN

W. M. LeFevre, M.D., *Chairman*.....
289 W. Western, Muskegon
A. A. Humphrey, M.D.....Country Club Dr., Battle Creek
F. B. MacMillan, M.D...1553 Woodward Ave., Detroit 26

MSMS REPRESENTATIVES ON MICHIGAN CANCER CO-ORDINATING COMMITTEE

W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
J. W. Hubly, M.D.....25 W. Michigan Ave., Battle Creek
H. M. Pollard, M.D.....2012 Vinewood Blvd., Ann Arbor
G. S. Wilson, M.D.....3011 W. Grand Blvd., Detroit 2

MSMS REPRESENTATIVE ON SPECIAL ADVISORY COMMITTEE TO MICHIGAN STATE BOARD OF ALCOHOLISM

J. S. Rozan, M.D.....103 N. Washington, Lansing

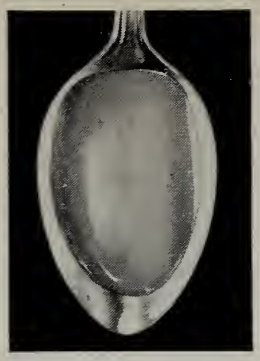
MSMS CONSULTANTS TO UNIVERSITY OF MICHIGAN STUDY OF HOSPITAL AND MEDICAL ECONOMICS

L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
B. M. Harris, M.D.....27 S. Prospect, Ypsilanti

MICHIGAN CHAIRMAN OF THE AMERICAN MEDICAL EDUCATION FOUNDATION

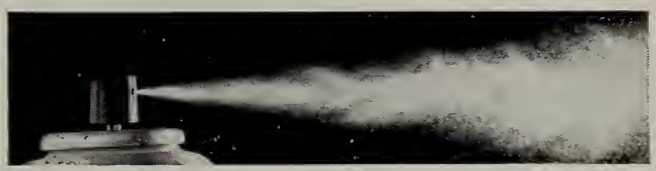
F. P. Rhoades, M.D.....5057 Woodward Ave., Detroit

(Continued on Page 18)

in a form  to fit

every  antibiotic 



need  . . .

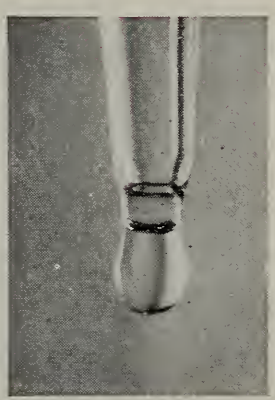
ACHROMYCIN*

ACHROMYCIN Tetracycline

ACHROMYCIN V Tetracycline with Citric Acid Lederle



the most widely used and useful... antibiotic



ACHROMYCIN V: Capsules • Pediatric Drops • Syrup

ACHROMYCIN: Capsules • Ear Solution 0.5% • Intramuscular • Intravenous • Nasal Suspension with Hydrocortisone and Phenylpherine Ointment 3% • Ointment 3% with Hydrocortisone 2% • Ophthalmic Oil Suspension 1% • Ophthalmic Ointment 1% • Ophthalmic Ointment 1% with Hydrocortisone 1.5% • Ophthalmic Powder (Sterilized) • Oral Suspension • Pediatric Drops • PHARYNGETS® TROCHES Soluble Tablets • SPERSOIDS® Dispersible Powder • Surgical Powder (Sterilized) • Syrup • Tablets • Topical Spray • Troches

*Reg. U. S. Pat. Off.

LEDERLE LABORATORIES, a Division of **AMERICAN CYANAMID COMPANY,** Pearl River, New York

Lederle

(Continued from Page 16)

COMMITTEE ON ALCOHOLISM

Walter E. Green, M.D., *Chairman*.....
12851 E. Grand River Ave., Brighton
Richard C. Bates, M.D...1820 E. Michigan Ave., Lansing
T. S. Conover, M.D.....346 S. Saginaw St., Flint 3
Mark E. Heerdt, M.D.....Box 276, Okemos

COMMITTEE ON STUDY OF INSURANCE PROGRAMS FOR MSMS MEMBERS

M. A. Darling, M.D., *Chairman*..673 Fisher Bldg., Detroit
Mr. Lester P. Dodd, LL.B.....1604 Dime Bldg., Detroit
L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
K. H. Johnson, M.D.....
1116 Michigan National Tower, Lansing
W. S. Jones, M.D.....P.O. Box 76, Menominee
J. D. Miller, M.D.....50 College Ave. S.E., Grand Rapids
T. P. Wickliffe, M.D.....1167 Calumet Ave., Calumet

LIAISON COMMITTEE WITH THE MICHIGAN CHAPTER OF THE HEALTH INSURANCE COUNCIL

G. W. Slagle, M.D., *Chairman*.....
203 N.E. Capitol, Battle Creek
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
M. L. Lichter, M.D.....2900 Oakwood Blvd., Melvindale
B. L. Masters, M.D.....111 W. Dayton, Fremont
D. W. Thorup, M.D.....756 Pipestone St., Benton Harbor

MSMS REPRESENTATIVES: PLANNING COMMITTEE ON PSYCHIATRIC NURSING

I. A. LaCore, M.D.....Pontiac State Hospital, Pontiac
A. Hazen Price, M.D.....62 W. Kirby, Detroit
Mr. Wm. J. Burns.....P.O. Box 539, Lansing

COMMITTEE TO STUDY FEASIBILITY OF GREATER PARTICIPATION IN BLUE SHIELD

B. L. Masters, M.D., *Chairman*..111 W. Dayton, Fremont
C. Allen Payne, M.D.....
1840 Wealthy St. S.E., Grand Rapids
A. E. Schiller, M.D.....1553 Woodward Ave., Detroit 26

MICHIGAN CANCER COORDINATING COMMITTEE

Charles F. Arnold....Chief Engineer, Cadillac Motor Div.
2860 Clark, Detroit 10
Representing S. E. Michigan Division, Inc., American Cancer Society

Russell E. Bowers.....903 Genesee Bank Bldg., Flint
Representing Michigan Division, Inc., American Cancer Society

John A. Cowan, M.D.....Mich. Dept. of Health, Lansing
Representing Michigan Department of Health

L. E. Holly, M.D.....876 N. Second St., Muskegon
Representing Michigan Division, Inc., American Cancer Society

J. W. Hubly, M.D.....25 W. Michigan Ave., Battle Creek
Representing Michigan State Medical Society

W. A. Hyland, M.D.....Metz Bldg., Grand Rapids 2
Representing Michigan State Medical Society

J. E. Lofstrom, M.D.....1420 St. Antoine St., Detroit 26
Representing S. E. Michigan Division, Inc., American Cancer Society

B. E. Luck, D.D.S.....
1512 Michigan Natl. Tower, Lansing
Representing Michigan State Dental Association

H. M. Nelson, M.D.....3001 W. Grand Blvd., Detroit 2
Representing S. E. Michigan Division, Inc., American Cancer Society

C. Allen Payne, M.D.....
1840 Wealthy S.E., Grand Rapids
Representing Michigan Division, Inc., American Cancer Society

H. M. Pollard, M.D.....2012 Vinewood Blvd., Ann Arbor
Representing Michigan State Medical Society

Ralph Ten Have, M.D...1016 Sheldon Rd., Grand Haven
Representing Michigan Health Officers Association

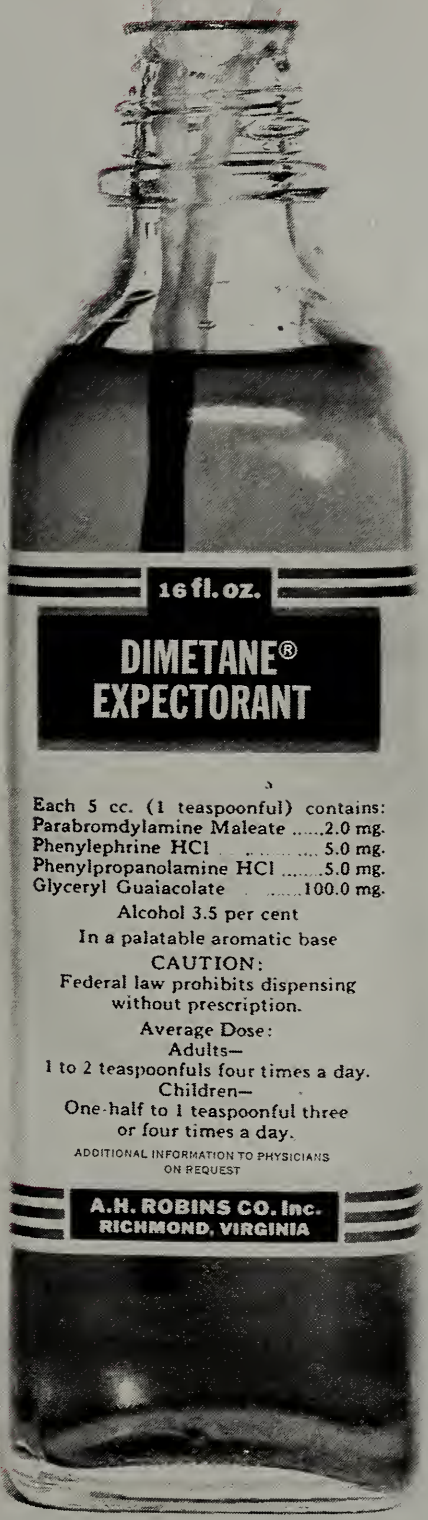
G. S. Wilson, M.D.....3011 W. Grand Blvd., Detroit 2
Representing Michigan State Medical Society

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

new for cough



tastes good

the straws just symbolize the good flavor! And DIMETANE EXPECTORANT for cough is as effective as it is delicious. FORMULA: each 5 cc. (1 teaspoonful) contains: DIMETANE (Parabromdylamine Maleate) 2.0 mg.; Glyceryl Guaiacolate 100.0 mg.; Phenylephrine Hydrochloride, USP 5.0 mg.; Phenylpropanolamine Hydrochloride, NNR 5.0 mg.; Alcohol 3.5% in a good-tasting aromatic base.

works better

combines the unsurpassed antihistamine Dimetane with the clinically proven expectorant glyceryl guaiacolate (which increases R.T.F. almost 200%) and two recognized decongestants. When additional cough suppressant action is indicated, prescribe DIMETANE EXPECTORANT-DC, which provides the basic formula with dihydrocodeinone bitartrate 1.8 mg. per 5 cc. (exempt narcotic).

Dimetane® Expectorant

Robins

Dimetane® Expectorant-DC

(WITH DIHYDROCODEINONE BITARTRATE 1.8 MG./5CC.)

Heart Beats

HEART RESEARCH GRANTS ANNOUNCED

For the fiscal year 1958-1959, the Michigan Heart Association will spend more than $317,000 in support of heart research in Michigan. This sum is more than half of the operating funds of the Association.

F. D. Dodrill, M.D., President of the Michigan Heart Association recently announced the names of Responsible Investigators for Cardiovascular research projects supported by the Association during this fiscal year. Slightly more than $246,000 has been appropriated for the thirty-five project Grants-in-Aid. This support is possible through the funds received from the Michigan United Fund and contributions to the Michigan Heart Association Memorial Fund.

"One need only look at the progress of the last decade to realize the contributions that cardiovascular research has made," Dr. Dodrill said, adding: "The sponsorship of more projects has been made possible largely by increased contributions to the Memorial Fund by persons who choose 'giving' as a means of honoring birthdays, anniversaries, or as a way of creating a living memorial in the name of a friend or relative. . . . Through research we are meeting the challenge of heart disease, because of the generosity of the people of Michigan, we are able to meet the challenge of research."

Of the research funds allocated, $117,000 has been provided from the Association's Memorial Fund. No administrative expense is charged against this fund, it is used solely for cardiovascular research studies.

Responsible Investigators who have received Project Grants-in-Aid for the year 1958-1959 are:

William T. Beher, Ph.D., Henry Ford Hospital, Detroit
James B. Blodgett, M.D., Grace Hospital, Detroit
David F. Bohr, M.D., University of Michigan, Ann Arbor
Albert J. Boyle, M.D., Wayne State University, Detroit
E. J. Cafruny, Ph.D., University of Michigan, Ann Arbor
N. E. Clarke, M.D., Providence Hospital, Detroit
Lewis Cohen, M.D., Sinai Hospital, Detroit
F. D. Dodrill, M.D., Harper Hospital, Detroit
Ivan F. Duff, M.D., University of Michigan, Ann Arbor
Harold F. Hardman, Ph.D., University of Michigan, Ann Arbor
Harper K. Hellems, M.D., Wayne State University, Detroit
Thomas B. Hill, M.D., Lowell Public Schools, Lowell, Michigan
Fred J. Hodges, M.D., University of Michigan, Ann Arbor
S. W. Hoobler, M.D., University of Michigan, Ann Arbor
Joseph J. Jasper, Ph.D., Wayne State University, Detroit
S. A. Johnson, Ph.D., Henry Ford Hospital, Detroit
Charles G. Johnston, M.D., Wayne State University, Detroit
Joseph A. Johnston, M.D., Henry Ford Hospital, Detroit
Jon J. Kabara, Ph.D., University of Detroit, Detroit
Sidney D. Kobernick, M.D., Sinai Hospital, Detroit
Conrad R. Lam, M.D., Henry Ford Hospital, Detroit
Benjamin M. Lewis, M.D., Wayne State University, Detroit
Yoshikazu Morita, M.D., Wayne State University, Detroit
Jan Nyboer, M.D., Harper Hospital, Detroit
Bradley M. Patten, Ph.D., University of Michigan, Ann Arbor
Edward M. Priest, M.D., Henry Ford Hospital, Detroit
Edward L. Quinn, M.D., F.A.C.P., Henry Ford Hospital, Detroit
Fred L. Rights, Ph.D., Wayne State University, Detroit
Paul A. Rondell, Ph.D., University of Michigan, Ann Arbor
Herbert Sloan, M.D., University of Michigan, Ann Arbor
D. Emerick Szilagyi, M.D., Henry Ford Hospital, Detroit
N. S. Talner, M.D., University of Michigan, Ann Arbor
John M. Weller, M.D., University of Michigan, Ann Arbor
J. L. Wilson, M.D., University of Michigan, Ann Arbor
R. F. Ziegler, M.D., Henry Ford Hospital, Detroit
Wolf W. Zuelzer, M.D., Child Research Center of Michigan, Detroit

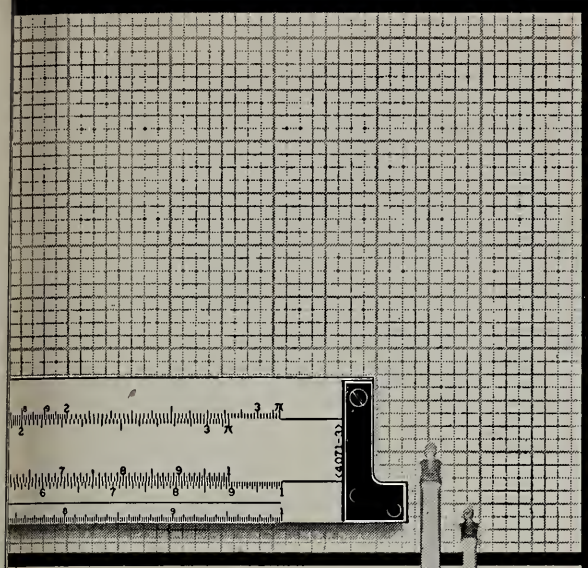
DEAN'S FUNDS AND STUDENT FELLOWSHIPS

The Dean's Funds established at the University of Michigan School of Medicine and Wayne State University College of Medicine were created to aid in whatever way the Dean of each Medical School sees best in order to retain competent men in academic medicine on completion of their residency or fellowship training. Individuals to be supported are nominated by the Deans and then reviewed by the Dean's Fund Committee of the Michigan Heart Association. All candidates must be medical doctors who will engage in research in cardiovascular diseases. $30,000 has been awarded to the Dean of each medical school for the current year.

During the year 1957-1958, fifteen Summer Medical Student Fellowships at $600 were given, seven at the University of Michigan School of Medicine and eight at Wayne State University College of Medicine. Two of those from the University of Michigan have been continued into the current fiscal year because of the promising work of their project: bypassing the aorta during reconstructive operations on the arch of the aorta. This continuation will permit completion of the project. Two more Medical Student Fellowships have already been granted and more will be available for the vacation period next summer.

The Student Fellowship Program should be

(Continued on Page 26)

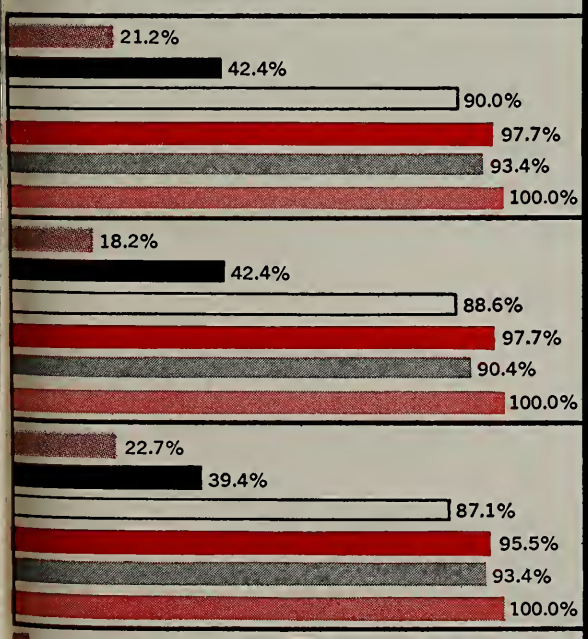


in the laboratory:



over 90% effective against resistant staph

COMPARATIVE TESTS BY THREE METHODS (DISC, TUBE DILUTION, CYLINDER PLATE) ON 130 STAPHYLOCOCCI[9]



Percentage of organisms inhibited by the range of concentrations listed for each antibiotic.

Other Tao advantages:

Rapidly absorbed—stable in gastric acid,[7] TAO needs no retarding protective coating

Low in toxicity—freedom from side effects in 96% of patients treated; cessation of therapy is rarely required

Highly palatable—"practically tasteless"[7] active ingredient in a pleasant cherry-flavored medium.

Dosage and Administration: Dosage varies according to the severity of the infection. **For adults,** the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. **For children** 8 months to 8 years, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg., bottles of 60. TAO for Oral Suspension—1.5 Gm., 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. Koch, R., and Asay, L. D.: J. Pediat., in press. 2. Leming, B. H., Jr., et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 3. Mellman, et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 4. Olansky, S., and McCormick, G. E., Jr.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 5. Shubin, H., et al.: Antibiotics Annual 1957-1958, New York, N. Y., Medical Encyclopedia, Inc., 1958, p. 679. 6. Isenberg, H., and Karelitz, S.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 7. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy 5:527 (Aug.) 1958. 8. Kaplan, M. A., and Goldin, M.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 9. Truant, J. P.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958.

TAO dosage forms—for specific clinical situations

TAO Pediatric Drops

For children—flavorful, easy to administer.

Supplied: When reconstituted, 100 mg. per cc. Special calibrated droppers—5 drops (approx. 25 mg. of TAO) and 10 drops (approx. 25 mg. of TAO). 10 cc. bottle.

TAO-AC (TAO analgesic, antihistaminic compound)

To eradicate pain and physical discomfort in respiratory disorders.

Supplied: In bottles of 36 capsules.

TAOMID* (TAO with triple sulfas)

For dual control of Gram-positive and Gram-negative infections.

Supplied: Tablets, bottles of 60. Oral Suspension, bottles of 60 cc.

Intramuscular or Intravenous

For direct action—in clinical emergencies.

Supplied: In 10 cc. vials.

*TRADEMARK



New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

Michigan Relative Value Study Plans Disclosed



L. R. Leader, M.D.

Specific plans for the development of Michigan's own Relative Value Scale were outlined in detail to more than fifty key doctors of medicine at a dinner meeting on December 6 at the Fort Shelby Hotel in Detroit.

The meeting was sponsored by the Michigan State Medical Society and guests included representatives of Michigan specialty societies, chairmen of Councilor District Medical Care Insurance Committees, MSMS Councilors and Officers.

Featured speakers of the evening were two members of the California Medical Association who contributed much to the development of the California Relative Value Scale. Francis J. Cox, M.D., of San Francisco, chairman of CMA's Commission on Medical Services, explained why the Relative Value Scale was needed in his state and reviewed the philosophy behind its development. H. Dean Hoskins, M.D., of Oakland, California, chairman of the Commission's Committee on Fee Schedules, reported on how the survey was conducted, detailing the methods and techniques used to obtain a true picture of physician charges—the base point in establishing relative values.

The guest speakers were introduced by Max L. Lichter, M.D., chairman of the MSMS Medical Care Insurance Committee.

On the program was Luther R. Leader, M.D., Detroit, chairman of the MSMS Relative Value Study Committee. Dr. Leader outlined the plans for the Michigan survey and stressed that his committee would work closely with the official representatives of the various Michigan specialty groups. These representatives were appointed by the individual societies at the invitation of the Relative Value Scale Committee.

During an extended question and answer period, guests obtained clarification on specific points of the planned program.

DEAN'S FUNDS AND STUDENT FELLOWSHIPS

(Continued from Page 20)

fruitful in guiding some of these medical students into fields of medical research, and even if they do not, "they will certainly be better doctors and better prepared to make sounder decisions as to medical care because of their research experience during the time of these fellowships," commented Dr. Davenport of the University of Michigan.

In addition, there are two fulltime Research Fellowships to Medical Students at $4,000 per annum at the University of Michigan.

MICHIGAN HEART ASSOCIATION TENTH ANNUAL MEETING

The tenth annual Heart "Block" arranged by the Michigan Heart Association for the Michigan Clinical Institute has been scheduled for Thursday morning, March 12, 1959, at 8:30 A. M.

The annual Dinner Meeting of the Michigan Heart Association will be held that same evening in the Book Casino at the Sheraton-Cadillac Hotel. The speaker will be George Wakerlin, M.D., Medical Director of the American Heart Association. Dr. Wakerlin was formerly Professor of Physiology at the University of Illinois. He is known for basic investigation in the field of hypertension.

CLINICAL SPEAKERS AVAILABLE

The Michigan Heart Association provides clinical programs for county medical society meetings and component unit meetings of the Michigan Academy of General Practice. A "Wet Clinic" is held in the afternoon prior to the meeting in order to provide informal case discussion as well as the usual didactic lecture. Leading clinicians, expenses paid by MHA, can be secured by corresponding with the Medical Director of the Michigan Heart Association.

MEMBERSHIP

The Michigan Heart Association extends a cordial invitation to all medical doctors to become active members in the Association. A five dollar membership includes automatic membership in the American Heart Association and the following dividends:

A one-year subscription to the following publications:
Modern Concepts of Cardiovascular Disease (issued monthly)
Heart Research Newsletter (issued quarterly)
The American Heart Quarterly
Challenge, Michigan Heart Association Newsletter (quarterly)
Admission to Scientific Sessions of MHA and AHA
New Heart Literature

Membership application and complete details may be obtained by writing to the Michigan Heart Association, Doctor's Building, 3919 John R, Detroit 1, Michigan.

even when the causative organism may be a "persistent staph"

Cosa-Signemycin*

GLUCOSAMINE-POTENTIATED TETRACYCLINE WITH TRIACETYLOLEANDOMYCIN

increases the certainty of safe, rapid response

AS PROVED BY extensive clinical trials—an over-all success rate of more than 94% was achieved in a total of 3,280 cases.†

AS PROVED BY success in mixed infections—more than 95% of 1,000 acute and chronic respiratory tract infections were successfully treated; a 99% cure rate was achieved in mixed bacterial pneumonias.†

AS PROVED BY effectiveness in "problem infections"—a response rate better than 96% was recorded in a group of 221 gastrointestinal infections including chronic intestinal amebiasis; 91% of 465 urogenital infections were successfully controlled.†

AS PROVED BY excellent safety record—extremely well tolerated; discontinuance of medication was necessary in only 11 of 3,280 patients.†

A significant number of the above cases had not responded to other antibiotics.

Cosa-Signemycin is particularly valuable in home and office, where susceptibility testing is difficult or impractical.

SUPPLY: *Capsules* (green and white), 250 mg. and 125 mg.
New Oral Suspension (raspberry-flavored), 2 oz. bottle, 125 mg. per teaspoonful (5 cc.).
New Pediatric Drops (raspberry-flavored), 10cc. bottle, 5 mg. per drop, plastic calibrated dropper.

Average dosage: For adults, 1-2 Gm. daily in divided doses; proportionately less for children, depending on age, weight, and severity of infection.

†Literature and bibliography available on request.

*Trademark

Pfizer *Science for the world's well-being* **PFIZER LABORATORIES,** *Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.*

You and Your Business

LIVE SURGERY TO BE TELEVISED TO PUBLIC DURING MCI

One of the important features of the 1959 Michigan Clinical Institute will be a public showing of "Cataract Extraction" beamed from Detroit's Providence Hospital to the public through the facilities of Station WWJ-TV, in the Motor City. D. H. Kaump, M.D., Detroit, is Medical Co-ordinator of the TV presentation.

A network of TV stations in the State will carry the show *live* to most TV viewers of Michigan: Station WOOD-T; WJIM-T; WNEM-T; WPBN-T.

This *live* telecast will be presented Monday evening, March 9, 1959. Co-operating with the Michigan Clinical Institute in this educational endeavor will be the Smith Kline & French Laboratories of Philadelphia whose new telecast facilities will be utilized.

All members of the Michigan State Medical Society are invited not only to view this live telecast but to invite their patients to do likewise, since such presentations enhance public appreciation of the efforts of the medical profession to bring to the people, through the use of modern medical-surgical methods, greater enjoyment of longer life.

COMPONENT OFFICERS TO MEET

The Annual County Secretaries-Public Relations Seminar of the Michigan State Medical Society is scheduled for January 31-February 1, 1959, Sheraton-Cadillac Hotel, Detroit.

This informative session is held each year so that the officers and public relations committeemen of component societies may be furnished up-to-date information on activities of the Michigan State Medical Society.

This year's program includes a panel on "Progress Challenges Medicine" with the following participants: R. Wallace Teed, M.D., Ann Arbor; A. Hazen Price, M.D., Detroit; Arthur E. Schiller, M.D., Detroit, and Gaylord S. Bates, M.D., Dearborn.

A panel on "What the Michigan State Medical Society Has to Offer" will be moderated by Hugh M. Fuller, M.D., Detroit, with Ralph W. Shook, M.D., Kalamazoo, Gilbert B. Saltonstall, M.D., Charlevoix, and Wm. M. LeFevre, M.D., Muskegon, participating.

"Medicine and the Three Branches of Government" is the title of a symposium which will be moderated by Lawrence A. Drolett, M.D., Lansing. Illustrious representatives of the three divisions of government—executive, judicial and legislative—will appear on this program.

Lester P. Dodd, LL.B., Detroit, Legal Counsel of the Michigan State Medical Society, will present an entertaining talk with a serious message on "Ten Easy Lessons on How to Land in Court."

H. W. Brenneman of Lansing, MSMS Public Relations Counsel, will outline the opportunities of the medical man to talk about the amazing progress of medicine to the advantage of his patients and his profession; his presentation is entitled "Telling is Selling."

James E. Mahan, M.D., of Allegan, President of the County Medical Society Secretaries of Michigan, will be chairman of the meeting.

ADVISORY COMMITTEE ON FEES

The Permanent Advisory Committee on Fees, a Committee of the MSMS House of Delegates, was created by that body in 1957 and served during the past year under the chairmanship of Grover C. Penberthy, M.D., Detroit.

At the 1958 House of Delegates session, the Speaker was authorized to augment this committee to nine members, to serve for staggered terms of three years.

The personnel of the Permanent Advisory Committee on Fees, as appointed by Speaker K. H. Johnson, M.D., of Lansing, is as follows:

G. C. Penberthy, M.D., *Chairman*	(1959)	Detroit
L. J. Bailey, M.D.	(1961)	Detroit
H. F. Falls, M.D.	(1960)	Ann Arbor
H. W. Harris, M.D.	(1960)	Lansing
Wm. M. LeFevre, M.D.	(1960)	Muskegon
L. R. Leader, M.D.	(1961)	Detroit
M. L. Lichter, M.D.	(1959)	Melvindale
J. W. Rice, M.D.	(1961)	Jackson
Robert K. Whiteley, M.D.	(1959)	Detroit

HEALTH PROGRAM FOR AGING

"Medicine's Blueprint for the New Era of Aging" is the title of an interesting and illuminating brochure, outlining a positive health program for older citizens, developed by an AMA Committee of which Frederick C. Swartz, M.D.,

(Continued on Page 30)

for depression

Deprol†

Clinically confirmed in over 2,500 documented case histories[1,2]

CONFIRMED EFFICACY

Deprol ► acts promptly to control depression *without* stimulation

► restores natural sleep

► reduces depressive rumination and crying

DOCUMENTED SAFETY

Deprol is unlike amine-oxidase inhibitors

► does not adversely affect blood pressure or sexual function

► causes no excessive elation

► produces no liver toxicity

► does not interfere with other drug therapies

Deprol is unlike central nervous stimulants

► does not cause insomnia

► produces no amphetamine-like jitteriness

► does not depress appetite

► has no depression-producing aftereffects

► can be used freely in hypertension and in unstable personalities

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each tablet contains 400 mg. meprobamate and 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl).

Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

†TRADE-MARK

CD-7469

Literature and samples on request WALLACE LABORATORIES, *New Brunswick, N. J.*

HEALTH PROGRAM FOR AGING

(Continued from Page 28)

Lansing, Michigan, is chairman. The brochure includes a six-point program proposed as a basis for action by medicine in the field of aging. While primarily designed as a challenge to medical societies at national, state and local levels, the booklet is one that should be in the hands—and be well read—by every member of the American medical profession.

Efforts in the following six categories are urged:

1. Stimulation of a realistic attitude toward aging by all people.
2. Extension of effective methods of financing health care for the aged.
3. Expansion of skilled-personnel training programs and improvement of medical and related facilities for older people.
4. Promotion of health maintenance programs and wider use of restorative and rehabilitative services.
5. Amplification of medical and socio-economic research in problems of the aging.
6. Leadership and co-operation in community programs for senior citizens.

Congratulations, Doctor Swartz and your committee, on developing this important pattern in better health for the aging!

MEDICAL OFFICIALS URGE CUT RATES FOR AGED

Undoubtedly, the most important single official action of the American Medical Association House of Delegates for many years was accomplished December 4, 1958, as reported on our editorial page in this issue. The news broke in earlier papers, the reporters forgetting that the much discussed resolution was not official until the House had voted.

* * *

High American Medical Association (AMA) officials recommended here Wednesday that the nation's doctors agree to care for the low-income aged at reduced rates if they have health insurance.

This should be done so special low-premium health insurance can be developed on a large scale for Americans over sixty-five, said the AMA's council on medical service.

Its recommendation, it said, "has been studied and restudied by the board of trustees and received its wholehearted endorsement."

The trustees are the AMA's top policy body, headed by Dr. Leonard W. Larson, Bismarck, N. D.

"What we propose," explained Dr. Robert L. Novy, Detroit, Michigan, member of the medical service council, "is that we handle the low-income aged just as the doctor has traditionally handled those whose worldly goods are less.

"We would propose, for example, a graduated fee schedule for insured persons over 65, with a lower fee if the income was, say under $2,500 a year.

"This is only an example. We are suggesting no income figure now."

Novy and Dr. J. D. McCarthy, Omaha, Neb., council chairman, said they "definitely" fear federal health insurance or other plans for the aged unless independent plans like Blue Cross and Blue Shield are quickly and drastically expanded.

Morris Hursh, Minnesota welfare commissioner, in recent weeks has called repeatedly for a federal health insurance program to cut state medical costs for the aged.

Blue Cross and Blue Shield plans already cover many people over sixty-five. In Minnesota, for example, you can keep Blue Cross or Blue Shield coverage if you started it before you were sixty-five.

"We consider this a strong moral statement that we recognize the need and are willing to accept the responsibility," Novy said.—*Minneapolis Morning Tribune,* December 4, 1958.

Editor's Note: We have reported a very few items from the newspapers in Minneapolis. The American Medical Association act was so unexpected, so unanimous, and so far-reaching, we are also reporting an editorial comment from a local newspaper, and the first steps from Blue Shield to inaugurate the program. Planners have been studying this aging problem for years. Michigan's Blue Shield and Blue Cross have paid enormous amounts for care of major problems. Michigan Plans never cancel a contract for age, and never have.

This is quite true generally. Most of the Plans (thirty-one) accept individual, non-group subscribers up to age sixty-five. One Plan requires entry before age forty-nine and terminates at age seventy. In one Plan, the subscribers age limit is sixty-six, in five it is sixty, and in one, sixty-one. Twenty-nine Plans have no age limit listed.

MEDICAL AID FOR THE AGED

Everyone realizes that as a nation we are growing old—and that the problems of the aged are growing at an even faster rate.

Census figures which reveal that the ratio of those over sixty-five to the whole population doubled between 1900 and 1950 only hint at the problem, for now that we are living longer, the number of oldsters is increasing every year.

The problems of food, clothing, housing and simple social needs of these older persons are formidable enough in themselves, but the fact that an oldster requires an increased amount of medical attention as he ages put the spotlight on this aspect.

A recent Health Information Foundation survey shows expenditures for all personal health services to average $65 a year per person for the entire population, but $102 a year for men and women sixty-five or more.

Yet in the face of this increased need for medical aid in the sunset years, surveys show that termina-

(Continued on Page 37)

MEDICAL AID FOR THE AGING

(Continued from Page 30)

tion and cancellation of personal health insurance upon leaving employment at sixty-five has greatly curtailed the ability of oldsters to pay for such care. A survey by the Health Information Foundation made five years ago disclosed that medical insurance in some form covered over 60 per cent of the whole population, but only 30 per cent over sixty-five. Another survey, made this year by the Health Insurance Institute, covering the population of New York State, indicated that 65 per cent of the population sixty-five years and over has no health insurance.

These figures help to explain why government at all levels is now assuming financial responsibility for more than two-thirds of the care given the aged in hospitals and more than one-half of the care supplied in mental institutions. The figures help to explain, also, the trend toward socialized medicine which would mean less medical service at higher cost to tomorrow's taxpayer.

The American Medical Association House of Delegates last week accepted a resolution asking doctors to make less than normal charges for treating elderly persons with low incomes and small savings. If honored by doctors generally, the resolution, recommended by the Association's Board of Trustees and Council on Medical Service, would mean that low-income elderly persons could get health insurance at lower premiums than at present.

Most persons realize that few persons are so generous as our doctors when confronted with cases of need. However, by officially endorsing establishing this practice, it may become possible to get the needed health insurance for the elderly.

We all know that this is a field in which the government eventually will act if the doctors won't. However, if hospital costs and health insurance charges keep soaring at a rate far out of proportion to other mounting costs in our economy, no amount of fee bloodletting by the doctors will be able to keep the pace. Excessive charges pave the way for socialized medicine, whether or not those charges stem from administrative ineptness.—Editorial Bay City *Enquirer-News,* December 8, 1958.

COMMUNICATION FROM BLUE SHIELD COMMISSION

December 8, 1958

The resolution passed by the December 4, 1958 session of the House of Delegates of the American Medical Association was the subject of our December 5 news release. This represents a most significant and forceful act on the part of organized medicine and 's particularly effective and meaningful as a rebuttal to legislation of the Forand type which will almost certainly be introduced in this next session of Congress.

The program, as described by the resolution, envisions a service contract designed especially for people over sixty-five, with fee schedules and subscriber rates scaled to a low income level.

Appropriate committees and the staff of Blue Shield Medical Care Plans are already at work collecting and evaluating all available data to produce a pattern of coverage, fees, and rates which can be used by Plans in developing a program for senior citizens. It is the feeling of all concerned that the closer Plans can come to a uniform offering, the more successful will be our efforts.

You are urged, therefore, to await further word from this office before taking any specific action to implement the intent of this resolution.

INDUSTRIAL MEDICINE

More than fifty medical directors representing some of the largest corporations in the United States and Canada met at The University of Michigan Medical Center, Friday and Saturday, Dec. 5 and 6, 1958, to discuss current health problems of the nations' working force.

Titled the "Selby Discussional" in honor of the former medical director of the General Motors Corporation, the annual event is now in its tenth year. It is conducted by the University of Michigan Institute of Industrial Health.

The opening day's session is closed to all but invited guests and is designed to give the participants opportunity for a "no-holds-barred" discussion of problems in industrial medicine.

On Saturday three specialists from the University of Michigan Medical School reviewed modern developments in their respective fields and pointed out the applications to industry.

John F. Holt, M.D., professor of radiology: x-ray diagnosis of bone disease; H. Marvin Pollard, M.D., professor of internal medicine; gastric ulcers; and Walter M. Whitehouse, M.D., associate professor of radiology: x-ray diagnosis of chest diseases.

Host for the program is Seward E. Miller, M.D., chairman of the Department of Industrial Health, in the University of Michigan School of Public Health.

Those attending from Michigan were: *Dearborn*—Duane L. Block, M.D., Ford Motor Company; Earle A. Irvin, M.D., Ford Motor Company; *Detroit*—Marion Jocz, M.D., Chrysler Corporation; Earl F. Lutz, M.D., General Motors Corporation; Arthur J. Vorwald, Wayne State University; *Kalamazoo*—Wilfred N. Sisk, M.D., The Upjohn Company; *Midland*—Harold H. Gay, M.D., The Dow Chemical Company; *Wyandotte*—Joseph T. Noe, M.D., Wyandotte Chemicals Corporation.



Chrysler Corporation Doctors

CHRYSLER CORPORATION DOCTORS

All Chrysler Corporation doctors attended an industrial health seminar at the corporation's headquarters in Detroit on October 17 and 18. It was the first national meeting held by the company's medical department.

Ways and means of further improving the on-the-job health and medical safeguards for the company's 95,000 employees was the principal topic for the meeting. Front row *(left to right)* are Dr. James Rogin, consultant at Chrysler Corporation's central medical department; Dr. Emerson Evison, Outer Drive plant; Miss Crystal Halstead, superintendent of nurses; Dr. Raymond Laige, group medical director; Dr. Marion Jocz, medical director; Dr. Martin Bruton, assistant medical director; Dr. Louis Staudt, chief of the consulting services section; Dr. John Glees, group medical director and Dr. John Montgomery, Dodge Truck plant. Second row *(left to right)* are Dr. Irene Suen, Mack Avenue plant; Don Fowler, chief of industrial hygiene section; Dr. P. Grant Crozier, Canadian plants; Dr. John MacLennan, medical director for Chrysler of Canada; Dr. Lullus Muller, Electrical Equipment Division, Indianapolis, Indiana; Dr. Karl Klokke, Jefferson Assembly plant; Dr. Robert James, Los Angeles, California, Assembly plant; Dr. William Shields, central medical department; Dr. Harry Mauthe, Trenton Engine plant; Dr. Frank Hendricks, Dodge Assembly plant; Dr. Armen Shekerjian, Lynch Road Gear & Axle plant; Dr. William Stowe, Airtemp plant, Dayton, Ohio; Dr. Walter Glazer, MoPar plant; Dr. Edgar Mendians, Plymouth Assembly plant; Dr. John Engel, Missile Division; Dr. Edward Svec, Ohio Stamping plant, Twinsburg, Ohio; Dr. William Hutto, Kokomo, Indiana, Transmission plant; Dr. Alfred Kramer, New Process Gear Division, Syracuse, N. Y.; Dr. Joseph Carlisle, Imperial Assembly plant; Dr. Melvin Durkee, Evansville, Indiana, Plymouth plants; Robert Rosenbusch, business manager—medical department. Four doctors unable to attend the seminar are: Dr. Henry Wass, Marysville plant; Dr. Howard Stayton, Newark, Delaware, Assembly plant; Dr. Ray Foster, New Castle, Indiana, plants, and Dr. Burns Newby, consultant at central medical department.

All plants are in the Detroit area unless otherwise specified.

GERM-FREE LABORATORY

A new and simplified germ-free laboratory, believed to be virus-proof as well, has been successfully tested at The University of Michigan Medical Center.

A goal of biological scientists since the turn of the century, the apparatus is an outgrowth of two other systems developed in the United States and Sweden.

Guinea pigs born in the sterile laboratory last September have survived. The achievement recalled stormy debates that raged early this century on the proposition that all animal life depends, for its very existence, on certain "beneficial bacteria" prevalent in normal life.

The germ-free apparatus, a sealed metal and glass box about the size of a deep-freeze cabinet, is expected to become a tool for extensive medical research on the role of organisms in the life of men and animals.

Nothing rots inside the miniature laboratory. Excess food and animal feces have remained for weeks without decomposing and without odor.

The test was conducted by Dr. Gerald D. Abrams, instructor in pathology at the University of Michigan Medical School.

He delivered the guinea pigs by Caesarean section directly into the germ-free cabinet, employing an intricate surgical procedure that used

(Continued on Page 40)

in peptic ulcer

REFRACTORY CASES RESPOND TO

NEW DARICON* *tablets*

OXYPHENCYCLIMINE HYDROCHLORIDE

POTENT ANTICHOLINERGIC ACTION

curbs secretion when excessive
normalizes motility when overactive

Activity appears to be restricted to the desired site of action.
Predictable therapeutic response in refractory cases.

Potency and Prolonged Duration of Action
10 mg. b.i.d. Average Dose · Supplied as:
10 mg. white, scored tablets

References: 1. Finkelstein, Murray: Journal of Pharmacology and Experimental Therapeutics, in press. 2. Winkelstein, Asher: Paper in preparation.

*Trademark

Pfizer *Science for the world's well-being*

PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.,
Brooklyn 6, N. Y.



GERM-FREE LABORATORY

(Continued from Page 38)

a plastic membrane to prevent possible contamination by the mother's body.

Guinea pigs were chosen for the work because the young are able to fend for themselves upon birth and do not have to be nursed.

Work thus far has concentrated on testing the apparatus. In the near future, researchers will begin to compare the body tissues of ordinary animals and those raised in the germ-free environment.

BIGGER 1959 SAMA SCIENTIFIC ASSEMBLY PLANNED

Medical students, interns and residents are being urged to participate in the second annual national Scientific Exhibit Assembly of the Student American Medical Association to be held in Chicago April 30-May 2, 1959.

The program was inaugurated in 1958 and is dedicated both to the contributions of medical students to research and to the advancement of the scientific exhibit as a primary medium of communication in the profession. It is hoped that new physicians will contribute to their colleagues' knowledge through exhibits and papers throughout their medical careers.

Arrangements have been made for more space to hold a total of 40 scientific exhibits, the best work presented in this medium of professional communication by the country's outstanding students, interns and residents. Of these, twenty will be by students and twenty by interns and residents.

The SAMA-Lakeside Laboratories Awards will again be given, with the special honor of free all-expense trips to the American Medical Association convention and the privilege of exhibiting in the AMA's own world-famed scientific assembly, for the top student and the top intern or resident.

Cash prizes and plaques will be given, with $500, $250 and $100 for award-winning exhibits by students; and $500, $250 and $100 for those by interns and residents. Lakeside Laboratories supports the awards and the trips to the AMA.

A distinguished group of judges will again make the decisions.

SAMA believes this program is a real opportunity for all medical colleges and teaching hospitals—students, faculty and hospital staff alike—to report on their work nationally and to be recognized for their contributions to new medical knowledge.

Applications must be obtained from SAMA (address Mr. Russell Staudacher, Executive Secretary, Student American Medical Association, 430 North Michigan Avenue, Chicago 11, Illinois) and returned no later than February 1, 1959. On February 14, the forty chosen exhibitors will be announced. These must complete their exhibits and ship them to Chicago at their own expense, for inclusion in the SAMA scientific assembly, April 30-May 2.

(Continued on Page 42)



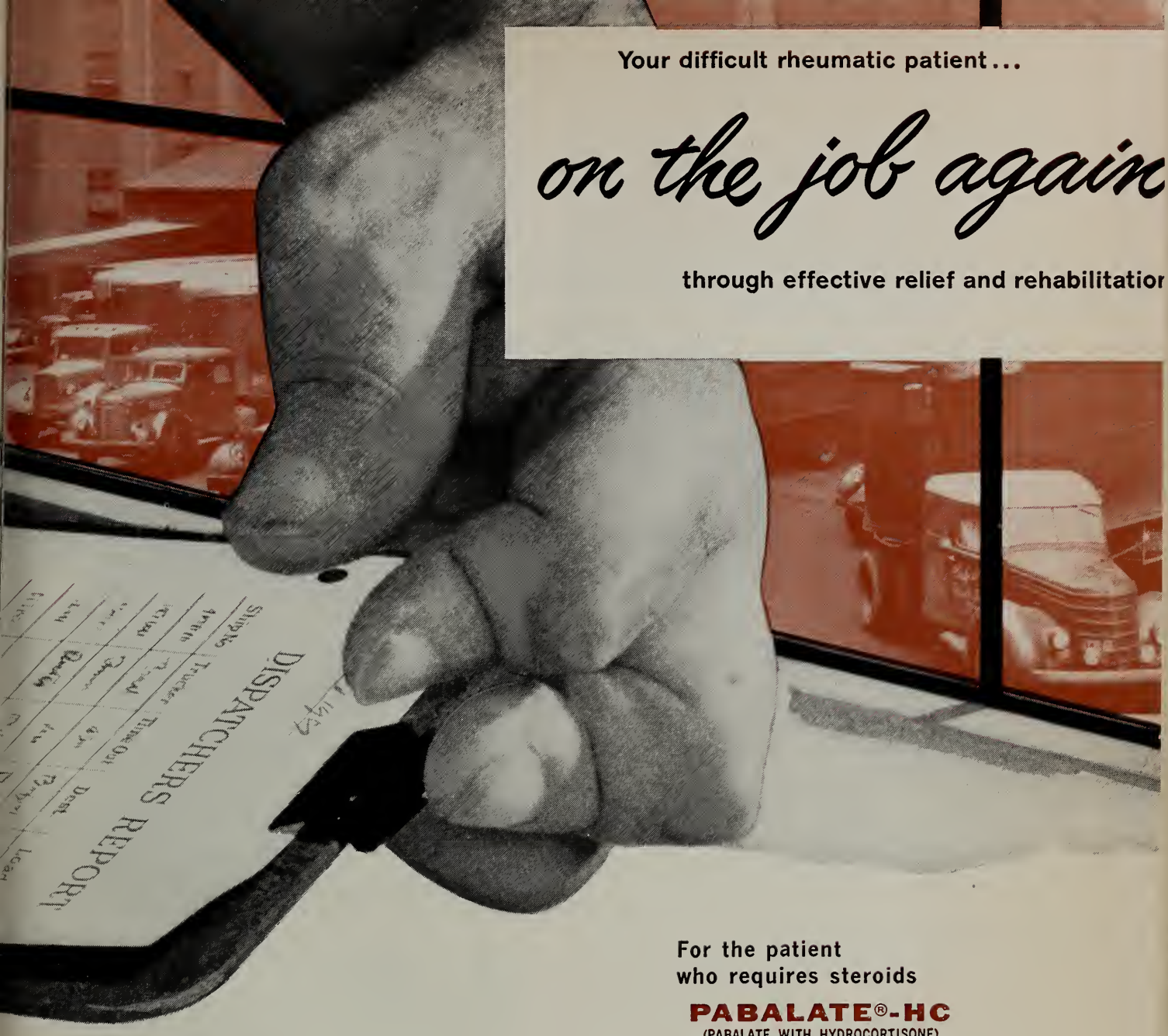
The new $8,500,000 facilities of the University of Michigan Medical School and School of Nursing will be dedicated in official ceremonies, February 22, 1959.

Invitations to the affair are limited to 250 persons, and will be sent to medical, academic, legislative and community leaders.

Coinciding with the dedication, the University will hold a public "open house" of the new teaching facilities, with medical and nursing students acting as escorts for the visitors.

The tour will include visits to the departments of Pathology, Biochemistry and Pharmacology and to the School of Nursing. Special exhibits of teaching materials, laboratory equipment and classrooms are being arranged for the visitors.

A. C. Furstenberg, M.D., Dean of the University of Michigan Medical School, expects up to 3,000 visitors may attend the Sunday afternoon "open house," depending on the weather.



Your difficult rheumatic patient...

on the job again

through effective relief and rehabilitation

For the patient who does not require steroids

PABALATE®

Reciprocally acting nonsteroid antirheumatics . . . more effective than salicylate alone.

In each enteric-coated tablet:

Sodium salicylate U.S.P.....0.3 Gm. (5 gr.)
Sodium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

or for the patient who should avoid sodium

PABALATE®-Sodium Free

Pabalate, with sodium salts replaced by potassium salts.

In each enteric-coated tablet:

Potassium salicylate .....0.3 Gm. (5 gr.)
Potassium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

For the patient who requires steroids

PABALATE®-HC

(PABALATE WITH HYDROCORTISONE)

Comprehensive synergistic combination of steroid and nonsteroid antirheumatics... full hormone effects on low hormone dosage . . . satisfactory remission of rheumatic symptoms in 85% of patients tested.

In each enteric-coated tablet:

Hydrocortisone (alcohol) ..... 2.5 mg.
Potassium salicylate ..... 0.3 Gm.
Potassium para-aminobenzoate.. 0.3 Gm.
Ascorbic acid .....50.0 mg.

PABALATE® Robins PABALATE®-HC

For steroid or non-steroid therapy: SAFE DEPENDABLE ECONOMICAL

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

BIGGER 1959 SAMA SCIENTIFIC ASSEMBLY PLANNED

(Continued from Page 40)

Space and basic materials such as backdrop, table, chairs and lighting, will be provided free by SAMA.

Last year, SAMA was particularly pleased that the top award-winning exhibit by a student, Quinton Callies of Wisconsin, was also exhibited at the American Trudeau Society, as well as at SAMA and AMA, and the study was published in the *Journal of the A.M.A.*

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of November 19, 1958

At the meeting of November 19 held in the University of Michigan Hospital, members of the Executive Committee of The Council were guests of Medical School officials including Dean A. C. Furstenberg, M.D., Harold F. Falls, M.D., A. C. Kerlikowske, M.D., Roger B. Nelson, M.D., John M. Sheldon, M.D., Harry A. Towsley, M.D.

Seventy-seven items were presented at this long session which began at 10:00 a.m. and ended at 6:20 p.m. Chief in importance were:

- **Follow-through on twenty-two actions** of the 1958 MSMS House of Delegates included: (A) instruction to each Councilor to hold quarterly meetings with his Delegates to inform them on progress made "by the mechanism set-up and in operation for the instrumentation of the Blue Shield program," so that the Delegates in each district may go back to their constituent county societies and explain to the membership what has happened in the preceding quarter; (B) that reprints of the Annual Reports of the Medical Care Insurance Committee be sent to the President and Secretary of every County Medical Society et al and that lantern slides be made available; (C) distribution of polio vaccine to medical indigent—letters were authorized to be sent to the Governor and to appropriate budget committees of the legislature outlining the MSMS position.

- **Medical Section Officers:** G. Thomas McKean, M.D., and J. J. Lightbody, M.D., Detroit, were appointed Chairman and Secretary, respectfully, of the Section on Medicine, which Section had not elected officers at its meeting held during the 1958 Annual Session.

- **Three matters** were presented by the University of Michigan Medical School representatives:
  1. Registration of the patient.
  2. Answering the referral letter.
  3. Questions and answers.

- **MSMS Group Life Insurance Program.**—Approval for the MSMS group life plan has been given by the State Insurance Commissioner, as reported by M. A. Darling, M.D., Chairman of the MSMS Committee which developed this program. A brochure to explain the program was authorized for mailing to members.

- **Council Committees** for the year 1958-59 were appointed by Council Chairman D. Bruce Wiley, M.D.
  The Council Chairman was authorized to appoint a Committee to study feasibility of greater participation (such as with oral surgeons, chiropodists, etc.) in Blue Shield, this MSMS Committee to work with a similar committee of Michigan Medical Service.

- **The House of Delegates' Permanent Advisory Committee on Fees** was appointed by Speaker K. H. Johnson, M.D. (See "You and Your Business").

- **M. A. Darling, M.D.,** and **G. Thomas McKean, M.D.,** were chosen as co-chairmen of the Testimonial Luncheon of Thursday, March 12, 1959, to be held during the Michigan Clinical Institute. The Press Committee for the MCI was chosen: A. B. Gwinn, M.D., Hastings, Chairman; S. E. Chapin, M.D., Dearborn; H. F. Dibble, M.D., Detroit, J. J. Lightbody, M.D., Detroit; Ralph W. Shook, M.D., Kalamazoo; C. L. Weston, M.D., Owosso; John M. Wood, M.D., Mount Pleasant.

- A proposed program for the 1959 Annual County Secretaries-Public Relations Seminar of January 31, February 1 was presented and approved.

- **Uniform Fee Schedule for Governmental Agencies.**—The Executive Committee of The Council decided this Fee Schedule shall be based upon the existing Michigan Relative Value Scale and those unit values applicable to the $2500 (Plan A) M-75 contract as previously approved by The Council. This action of the Executive Committee of The Council was referred to the House of Delegates' Permanent Advisory Committees on Fees, in accordance with House of Delegates instructions.

- **D. J. Sandweiss, M.D.,** Detroit, was appointed to the Committee on Postgraduate Medical Education and W. C. Lambert, M.D., of Marquette to the Maternal Health Committee by President Gilbert B. Saltonstall, M.D.

- **Two committee reports** were presented: Medical Care Insurance Committee, meeting of October 29, and meeting of Chairmen of Councilor

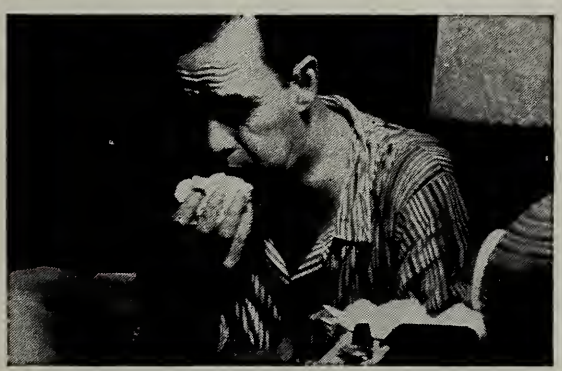
(Continued on Page 44)

Pyribenzamine® EXPECTORANT breaks up cough

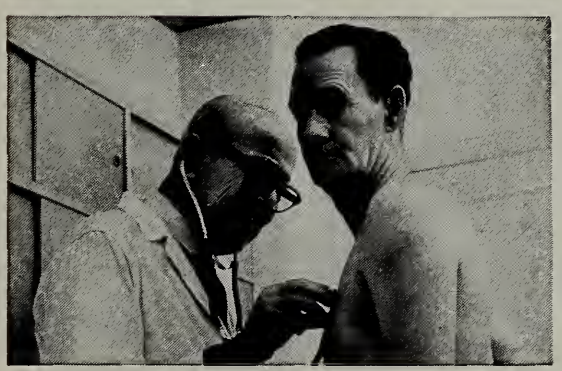
even persistent cough



Patient, factory worker, age 43, had suffered for months with persistent, dry cough, which he termed "smoker's hack."



Cough frequently interrupted his sleep, causing him to be nervous, irritable; his job efficiency was impaired.



Chest X-ray was negative and the plant physician prescribed PYRIBENZAMINE EXPECTORANT with Ephedrine. Patient noticed almost immediate relief— a week later felt "considerably better."

Pyribenzamine Expectorant with Ephedrine provides a unique combination of antitussive agents, which work three ways at once to break up the persistent cough: *Pyribenzamine* relieves histamine-induced congestion throughout the respiratory tract; *ephedrine* relaxes the bronchioles and makes breathing easier; *ammonium chloride* liquefies mucus, relieving dry cough and promoting productive expectoration.

Supplied: Pyribenzamine *Expectorant with Ephedrine,* containing 30 mg. Pyribenzamine citrate (equivalent to 20 mg. Pyribenzamine hydrochloride), 10 mg. ephedrine sulfate and 80 mg. ammonium chloride per 4-ml. teaspoon.

Also available: Pyribenzamine *Expectorant with Codeine and Ephedrine,* same formula as above with the addition of 8 mg. codeine phosphate per 4-ml. teaspoon (exempt narcotic).

CIBA

SUMMIT, N. J.

Pyribenzamine® citrate (tripelennamine citrate CIBA) 2/2559MK

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 42)

District Medical Care Insurance Committees, October 29.

- **Discussion of matters of mutual interest** with Michigan Health Commissioner A. E. Heustis, M.D., included report on Regional Staphylococcus Conference held in Chicago; on the poliomyelitis problem; and on the State Health Department budget for next year.
- **Public Relations Counsel's Report:** Michigan Association of the Professions—W. M. LeFevre, M.D., of Muskegon and G. B. Saltonstall, M.D., of Charlevoix were the official MSMS Delegates to MAP.
- **A survey of The Journal MSMS,** for the purpose of making recommendations for advisable changes in format, in order to increase, if possible, the magazine's readability and communications value, was authorized.
- **A vote of high thanks** was extended to the University of Michigan Medical School officials for their hospitality to the members of The Council on this occasion.



Transferring the MSMS badge of office, retiring President George W. Slagle, M.D., makes final adjustment of the ribbon and gives custody of the President's Medal to G. B. Saltonstall, M.D., incoming President, at the Officers Night Dinner Dance during the 1958 Annual Session in Detroit.



With obvious gratification, some of the newly elected officials of MSMS gather for a round of hand-shaking with retiring President Slagle upon announcement of election results by the House of Delegates. *(Left)* Doctor Slagle; M. A. Darling, M.D., President-Elect; Warren W. Babcock, M.D., Councilor; G. B. Saltonstall, M.D., President; and K. H. Johnson, M.D., Speaker.

Proven

in over three years of clinical use
in over 600 clinical studies

Specific

FOR RELIEF OF ANXIETY
AND MUSCLE TENSION

Selective

Does not interfere with autonomic function
Does not impair mental efficiency,
motor control, or normal behavior
Has not produced hypotension,
agranulocytosis or jaundice

MEPROBAMATE (WALLACE)
Miltown®

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.

WALLACE LABORATORIES, New Brunswick, N. J.

CM-8843

AMA Washington Letter

THE MONTH IN WASHINGTON

It is now well recognized that the new 86th Congress, heavily spiced with newly-elected Democratic liberals, will set out to make an impressive record for itself. Health legislation will not be neglected.

On the basis of developments last session, and the known interests of many of the new members of Senate and House, here are the health areas where intensive activity is assured, with prospects for enactment of a number of bills either this year or next year, the final session of the 86th Congress and also a presidential election year:

Social Security.—Labor has announced that it work this year for substantial changes in social security, the most important being a program for hospital-nursing home care for the aged and other beneficiaries. On this the unions are supported by the Democratic Advisory Council, which reflects the views of the Truman-Stevenson-Butler element of the party but generally finds itself to the left of Senate Leader Johnson, House Speaker Rayburn and some other Congressional leaders.

Under social security, the AFL-CIO and the Democratic Council also would lower or drop the age fifty requirement for disability payments, increase the OASI taxes, bring more income under the taxes, and raise benefits all up and down the line.

American Medical Association, joined by scores of other associations and individuals in health and other activities, successfully opposed the social security hospitalization plan last session. They are prepared to wage just as determined a fight this year.

Aid to Medical Schools.—An effort was made in Congress last session to provide grants to medical schools for building and equipping teaching facilities, to complement the research grants program already in effect. While the administration supported the attempt, it did not throw behind it all the energy it is expected to exert this year. Top officials of the Department of Health, Education, and Welfare, from Secretary Flemming on down, have been talking up aid to medical schools all fall. When time comes to testify, they will be strengthened by the activities of a new committee appointed to look into the schools' problems, as well as by the Bayne-Jones report which calls for the immediate start on construction of between fourteen and twenty medical schools.

American Medical Association supports construction and equipment grants for medical teaching facilities. Strongest opposition this year is likely to come from some influential members of Congress, who succeeded in bottling up the legislation last session.

The Keogh Bill.—Last session this legislation to permit the self-employed to pay taxes on money withdrawn from retirement funds passed the House but failed to get out of committee in the Senate. Its sponsors, including the AMA, are hopeful that the Senate objections can be removed this year.

Medicare.—Congressmen already have received protests from back home about restrictions imposed on the civilian phase of Medicare, mostly the channeling of service families to military facilities. This issue is sure to come up when appropriations hearings start on the Defense Department's budget. It may come up sooner, if Medicare runs out of money and requires a deficiency appropriation.

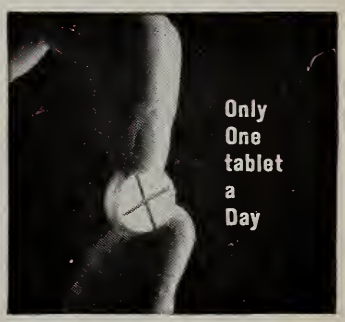
The Doctor Draft.—The special draft, which hasn't actually been used in two years, may be invoked by the Defense Department this spring, if there isn't a better response on the part of interns and residents to the appeals for volunteers. Should the law have to be used this year, the Defense Department will have a pretty convincing argument that it should be extended beyond its scheduled expiration date of next June 30.

Medical Research.—While the Federal government currently is spending at a rate of more than $324 million on medical research through the National Institutes of Health, a still higher record of appropriations is in prospect for next year. The Senate Appropriations Committee has announced that never again will the pace of research be slowed through lack of dollars. This is also the attitude of the AFL-CIO and the Democratic Advisory Council, among other groups. The pattern usually is for the House to increase moderately Budget Bureau figures for medical research, then for the Senate to vote large additional increases. The House then generally agrees to spend close to what the Senate wants.

Contributory Health Insurance for Federal Workers.—A new effort to bring about a contributory health insurance program for civilian federal workers is expected, with federal employee unions leading the drive.

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:
1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

*Reg. U. S. Pat. Off.

PR REPORT

SOCIETY OFFICERS MAP SCHEDULE OF VISITS TO WAYNE AREA HOSPITAL STAFFS

Repeat performances are scheduled for medical society officers who last year addressed staff meetings at nearly every Wayne County Hospital. The business and organizational activities of both Michigan State and Wayne County Medical Society will be discussed by respective official representatives.

A total of twenty-two hospitals will be contacted before the program is concluded in June of 1959. It is expected that more than 1,800 doctors of medicine will be reached through this personal contact method which proved so successful last year in informing the membership of important happenings and obtaining first-hand criticism and suggestions for improvement.

As part of the program, the MSMS-produced film, "A Journey Home," will be shown, depicting the transition of the Wayne County Medical Society from the old David Whitney House to its new modern headquarters.

The MSMS PR Field Secretary will act as coordinator for the program and handle technical arrangements for the meetings.

PRESS CODE APPROVED BY MSMS

A guide for improved communications between the medical profession and news media was approved and adopted by the MSMS Public Relations Committee at its annual meeting recently. Adoption of this or a similar media code by county societies was urged by R. W. Teed, M.D., Committee Chairman.

The MSMS Media Code will be discussed with county society PR Chairman attending the County Secretaries - Public Relations Seminar in late January.

In Wayne County, Sidney E. Chapin, M.D., WCMS PR Committee chairman, announced that the MSMS Media Code was adopted by his committee. The code was introduced to media representatives and physicians at a formal Press Luncheon. At the meeting, names of physician-contacts at each hospital in Wayne County were disclosed.

At least one M.D. was designated as a contact person for the press, and in larger hospitals a PR Committee composed of three doctors of medicine was appointed.

Within the provisions and limitations of the Code, contact physicians will have authority to provide the inquiring press with factual information regarding medical news. Dissemination of hospital news will remain the prerogative of hospital officials.

NEW TV SCREEN FOR MICHIGAN CLINICAL INSTITUTE SHOWS

The largest and most advanced compatible color TV "set" in the world—a 1500-pound electronic projector capable of presenting pictures 9 by 12 feet— has been built in the Netherlands for use at United States medical meetings, Smith Kline & French Laboratories announced in late November.

The projector, which will be used at the Michigan Clinical Institute, March 10-13, received its U.S. tryout on December 2-5, when SKF presented fifteen hours of closed-circuit medical color TV at the American Medical Association's clinical meeting in Minneapolis.

When Smith Kline & French Laboratories pioneered medical color television more than nine years ago, the only viewing equipment consisted of 10-inch home-style screens. Later came U. S.-built projectors capable of pictures 4 by 6 feet. The larger the picture, however, the less brilliant the projected image—hence SKF's search for an improved projector that would provide both brilliance and large screen-size.

The Philips unit can project pictures four times larger or three times brighter than the most advanced compatible color TV equipment manufactured in the United States. The improvement in brightness and size may make it possible to view medical color television in normally-lit convention auditoriums.

GRANTS TO WSU TOTAL $265,000

Gifts and grants totaling $265,000 were accepted by Wayne State University's Board of Governors at its recent December meeting.

The National Science Foundation (NSF) gave $131, 800 for research and education. This will support training institutes in radiation biology and mathematics, to be conducted next summer for selected Detroit-area high school teachers.

Another $50,000 of the NSF total will support research into optical rotatory dispersion data by Dr. Carl Djerassi, professor of chemistry in the College of Liberal Arts.

The U.S. Public Health Service, National Institutes of Health, gave $105,328 to continue two research projects on cancer at the department of pathology of the College of Medicine.

Other grants to support research and training at the College of Medicine included $7,224 from Harper Hospital, $5,000 from the Squibb Institute and $2,500 from Difco Laboratories.

1 Ladeez and gentlemen:
learn all about new VITERRA PEDIATRIC,
a good supplement
in a great new package.



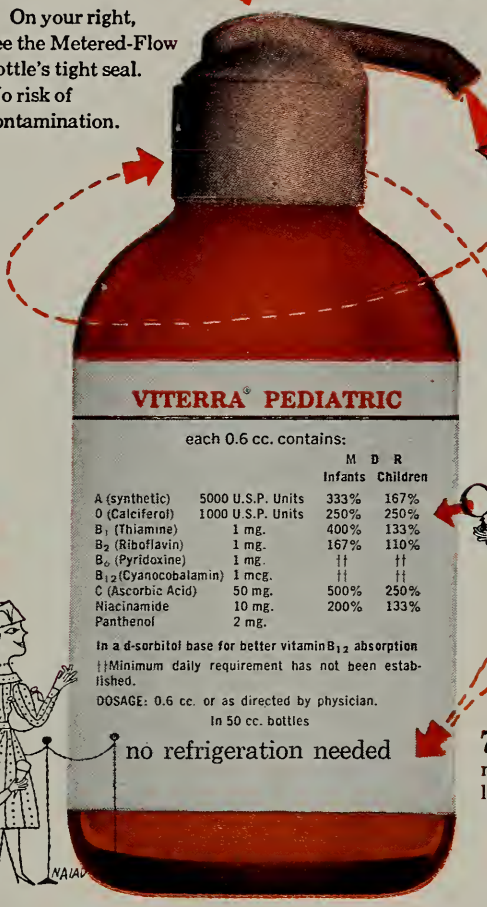
2 First,
see what happens when
you push the metered plunger.

3 Aha!
An exact 0.6 cc.
comes out this spout.
Never more, never less.



4 And notice—
no drip, no waste,
no sticky bottle.

5 On your right,
see the Metered-Flow
bottle's tight seal.
No risk of
contamination.



6 Let's take a minute
to admire the formula.





7 *That* means
no hot-weather
loss of potency.



8 Now for a farewell treat, a taste of delicious, orange-y VITERRA PEDIATRIC. How will you have it—in fruit juice? On cereal? Straight from the spoon?

VITERRA® PEDIATRIC

METERED-FLOW BOTTLE

ALLOW 30 SECONDS BETWEEN DISPENSINGS

Special note to doctors who took this tour:

Problems of over- and under-dosage, spillage, spoilage or leakage disappear with VITERRA PEDIATRIC's new Metered-Flow bottle. Why not consider these advantages when you recommend a vitamin supplement?

Roerig

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the world's well-being

Medicolegal Forms

Following are two additional simple forms of letters which the careful physician will sometimes find it advisable to use as a precautionary measure.

As usual, these forms have been selected by MSMS Legal Counsel from "Medicolegal Forms with Legal Analysis," prepared and published by the Law Department of the American Medical Association.

LETTER OF WITHDRAWAL FROM CASE

Dear Mr. _____:

I find it necessary to inform you that I am withdrawing from further professional attendance upon you for the reason that you have persisted in refusing to follow my medical advice and treatment. Since your condition requires medical attention, I suggest that you place yourself under the care of another physician without delay. If you so desire, I shall be available professionally to attend you for a reasonable time after you have received this letter, either for regular or emergency medical treatment, but in no event for more than five days following such receipt. This should give you ample time to select a physician of your choice from the many competent practitioners in this city. With your approval, I will make available to this physician your case history and complete information regarding the diagnosis and treatment which you have received from me.

Very truly yours,

_____, M.D.

LETTER TO PATIENT WHO FAILS TO KEEP APPOINTMENT

Dear Mr. _____:

On _____ 19____, you failed to keep your appointment at my office. In my opinion your condition requires continued medical treatment. If you so desire, you may telephone me for another appointment, but if you prefer to have another physician attend you, I suggest that you arrange to do so without delay. You may be assured that, at your request, I am entirely willing to make available my knowledge of your case.

I trust that you will understand that my purpose in writing this letter is out of concern for your health and well-being.

Very truly yours,

_____, M.D.,

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 JANUARY, 1959 NUMBER 1

Physiology of Cardiac Surgery

Hypothermia, Extracorporeal Circulation and Extracorporeal Cooling

By Frank Gollan, M.D.
Nashville, Tennessee

THE application of traditional fields of physiologic investigations, like hypothermia and blood perfusion, has lead to such dramatic advances in open cardiac surgery, that in many instances unexpected observations and new facts have come from the operating room and not from the experimental laboratories. It still remains an iron-clad rule to apply for human use only those procedures which have been thoroughly tested in a large series of animals.

The secret weapon is not the sharp knife of the surgeon or the soldering gun of the electronics magician, but reverence for the anoxic tolerance of living tissue. It is well to remember that Beaumont's equipment for the study of open stomach physiology consisted of a glass vial, a thermometer and a sand bag; and that eleven years after a gunshot accident in a trader's store, on an island of the distant frontier by the name of Michilimackinac, he published a cheaply printed book issued from a newspaper office, which Harvey Cushing called the most original paper of American medicine. Although in the last 125 years, our equipment has become much more expensive and elaborate, the two most important research tools are still the cerebral hemispheres of the investigator.

The emphasis on physiologic studies does not imply that we should try strenuously to keep the internal environment untouched by human hands in order to honor the memory of Claude Bernard. He would have been the first one to remind us to submit dogmatic scholastic ideas and the authority of man to the authority of experiments in nature. Since the names of hypothermia and of extracorporeal circulation imply the intentional change of normal conditions for a definite purpose, conventional thinking has rather hampered than enhanced progress in intracardiac surgery.

At a recent meeting of thoracic surgeons, the story went around that a new society for the prevention of hypothermia to patients was founded. If it is not true it is well invented, because it expresses the disappointment with the limitations of hypothermia as an adjunct to open cardiac surgery. It is also not coincidental that with this period coming seemingly to an end, excellent reviews should have appeared.† Thus, there is no need for further reviews of hypothermia and the recorded information will be used solely as material for discussion.

Any single investigator should resist the temptation to write a review of extracorporeal circulation. The rapid progress of this technique reported at a conference sponsored by the Surgery Study Section of the National Institutes of Health was

Dr. Gollan is Assistant Director of Professional Services for Research, Veterans Administration Hospital, Nashville, Tennessee.

†The Physiology of Induced Hypothermia, Washington, D. C., National Academy of Sciences, National Research Council, 1956, No. 451; and *Annual Review of Physiology,* Palo Alto, California, Annual Reviews, Inc., and the American Physiological Society, 19:83, 1957.

published recently* and will probably be hopelessly outdated when the next conference will convene. Therefore, an ambitious effort of an impartial evaluation of presently available equipment or its manifold applications for medical and surgical purposes will not even be attempted.

The exaggerated expectations for prolonged circulatory arrest at low body temperature may have been due partially to semantic confusion and the use of such flowery verbiage as artificial hibernation or suspended animation. The harmonious and gradual lowering of body temperature of hibernating animals and the rapid cooling of anesthetized dogs by ice immersion have hardly more in common than the use of a thermometer for temperature recording.

Hibernation

At the start of the cold season the body temperature of the furry animals wavers for several days[27,58] and then, without shivering or exhausting, fight the body temperature drops to the environmental temperature of about 5° C.[84] in about eight hours. In hamsters the metabolic rate is only 1/30 to 1/100 of the "resting" rate, the heart beats four times a minute, the circulation time from heart to femoral arteries is prolonged from three to thirty seconds, the mean blood pressure is about 50 mm. Hg, the blood volume decreases about 50 per cent and electrical activity of the cerebral cortex ceases. There exists a moderate respiratory acidosis because the CO_2 content of the blood rises[27] and the blood pH is lowered.[109] Most important of all, in spite of the marked reduction in blood circulation, blood flow in the capillaries seems to be preserved in dilated blood vessels since the feet of hibernating hamsters are bright pink. The longest continuous period of hibernation recorded is 114 days. The autonomous nervous system remains active in this semicomatous condition and a pain stimulus will trigger off the arousing mechanism.

On arousing the animals shiver violently, the temperature of the cranial portion of the body rises to the homeothermic level in about three hours while the caudal part can still be 20° C. colder. Such animals crawl around with their front feet while still dragging their hind feet. This differential temperature change makes their heart and brain wake up first, while their hind feet are still asleep.

The basic criterion particular to hibernating animals is the excitability of their heart and nerves at 3° C. This inherent quality of hibernating tissue is not abolished by anesthesia. Anesthesia abolishes the ability of spontaneous heat production only and external heat is needed to resuscitate such an animal. Since application of low body temperature for cardiac surgery was introduced eight years ago, the explosive number of publications has emanated more heat than light, because this fundamental problem of different energy availability, enzyme activity and electrolyte transfer of hibernators has not been brought closer to a solution.

Induced Hypothermia

1. *Early Observations.*—In reading the first description of the cooling of small rodents by Edwards,[29] Walther[115] and Horvath,[66] the exhilaration and excitement of the new observations come to life again after a century of dormancy on library shelves. They established the basic facts that hibernators can be cooled artificially to near 0° C, but that nonhibernating rodents succumb at about 18° C. When respiration and heart beat stopped, Walther threw the rabbits in the ash can and was quite surprised to see them hop around in the laboratory when he returned in the morning.

2. *Military Research.*—It is probable that the first aid in the form of a glass of brandy offered to the pilots of the Royal Air Force immediately after their rescue from the cold Atlantic contributed to the high mortality of these gallant, young men since the peripheral vasodilatation may have lowered their body temperature further. Thus, hypothermia became an acute practical problem and physiologic crash programs were undertaken in the laboratories of the warring air forces. Soon it was confirmed that death in hypothermia below 20° C. could not be attributed to respiratory arrest since even artificial respiration of high oxygen mixtures did not materially lower the terminal body temperature of dogs. Secondly, a shift of the oxyhemoglobin dissociation curve to the left resulting in tissue anoxia has been blamed as the immediate cause of hypothermic death. This attractive assumption has become untenable by the finding that hemoglobin releases sufficient

*Edited by Dr. J. Garrott Allen, Circulation Extracorporeal, Springfield, Illinois, Charles C Thomas, Publisher, 1958.

oxygen to cover the tissue requirements at low body temperature,[59] and most important, that the coronary arteriovenous difference in oxygen saturation remained unchanged at body temperature as low as 17° C.[90] The demonstration of a beneficial effect of digitalis and of initial rewarming of the heart by a heating element in the deep esophagus[20] were important leads in the testing of other cardiac drugs and of differential temperature changes of organs in the body.

3. *Hypothermia for Intracardiac Surgery.*—In 1950 Bigelow and his co-workers in Canada[5] undertook extensive physiological investigations in hypothermic dogs on the factors making venous inflow occlusion possible and, fortunately, for cardiac surgery, he published his classical work in a surgical journal. This fortuitous fact (at the time ready for it) and the simplicity of the procedure, requiring a bath tub filled with ice water only, shortened the time distance between laboratory and operating room from decades to months.[80]

Hypothermia inspired the imagination and diligence of surgeons and an avalanche of publications from all countries covering many problems of applied physiology and all possible clinical applications followed. In the temperature range of 26 to 28° C. the safety of circulatory arrest could be extended to about eight minutes. It is quite astonishing how much direct vision intracardiac manipulations the skilled and experienced surgeon can accomplish in so few minutes and the correction of thirty-five cases of atrial septal defects without any mortality[111] constitutes a landmark in the history of cardiac surgery. For the correction of more complicated cardiac lesions a longer period of circulatory arrest at a lower temperature would be required and it is at this point that one has to pay for the simplicity of the procedure with the heavy price of ventricular fibrillation with uncertain outcome and the prohibitive price of prolonged anoxia with certain death.

The Nature of the Hypothermic Injury

1. *Causes of Anoxic Injuries during Cardiac Surgery under Hypothermia.*—The most frequently performed experiment in which a dog is anesthetitized with barbiturates, immersed in ice water, subjected to thoracotomy, venous inflow occlusion, right ventriculotomy and finally immersion in warm water, reminds one of the old lady with the many strokes who said: "death nibbles at me by taking a little bite at a time."

Barbiturate anesthesia with its reduction of tissue oxygen tension[78] results in an increase of muscle sodium and chloride and a loss of muscle potassium and glycogen.[36] If shivering occurs the oxygen consumption is raised to such an extent that oxygen supply becomes severely insufficient and more barbiturates have to be administered. Thoracotomy, like all major surgery, results in an additional loss of potassium and nitrogen and retention of sodium. Venous inflow occlusion, the only calculated anoxic risk, is prolonged to the last drop of red blood and causes a 90 per cent drop of cerebral oxygen tension in the first four minutes.[70] Even if the hypothermic heart would not be more irritable than the normothermic one, any self respecting ventricle subjected to long incisions, stay sutures pulling in all directions, its septum punctured by needle holes, its fibers compressed by "non-crushing" clamps and pulled together by sutures, would consider fibrillation a timid act of self defense. If all goes well and electric shock and cardiac massage have restored a regular beat, the still cold heart is expected to perfuse adequately the entire periphery of the body, whose oxygen consumption has been suddenly raised to the level of normal body temperature. Although rapid rewarming may have a place in the treatment of frozen limbs,[77] in the resuscitation after immersion hypothermia the demands by the periphery of the body for a normal supply of oxygen cannot be met yet by the slowly beating heart pumping a reduced blood volume. As in burn injuries, the heart in turn is affected by severe tissue anoxia[41] and the lowest outputs occur during the early rewarming periods[91] when severe metabolic acidosis develops.[7] Recognizing these grave dangers of immersion hypothermia the most successful surgeon remarked with refreshing frankness: "I always have been scared to death of it. My philosophy has been that I do not know what is going on, I have some very definite purposes for it, and I would like to induce it and get the job done and get the patient back up where I believe I can understand him a little better, as quickly as possible. This is an emotional approach, as you can see."[110]

2. *Biochemical Changes.*—These limitations of induced hypothermia for open cardiac surgery have focused interest on electrolyte disturbances as the cause of the increased myocardial irritability and death due to ventricular fibrillation. No significant changes were found in serum sodium,

magnesium, chlorides and phosphorus, whereas, an increase in serum calcium was a rather consistent finding.[67] Differences in anesthesia, respiration and duration of hypothermia probably account for the variability in serum potassium. These discrepancies of serum potassium changes have led investigators to look for intracellular changes. A rise in the potassium content of coronary sinus blood,[19] indicated that a disturbance in the transfer of electrolytes may play a role in hypothermic ventricular fibrillation.

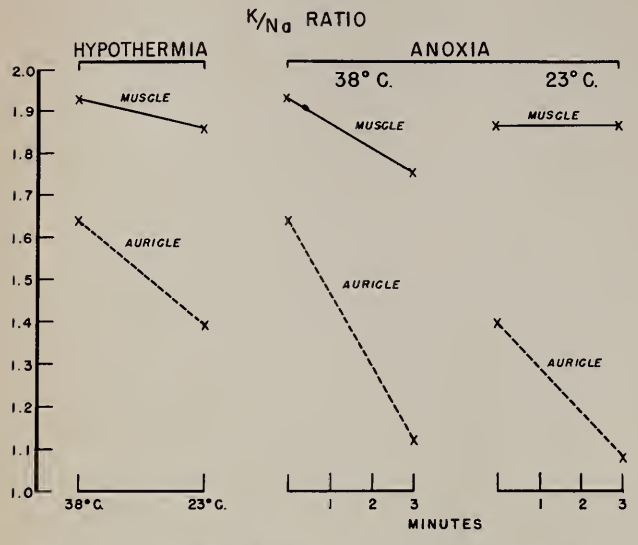


Fig. 1. Potassium-sodium ratio of resting skeletal muscle and beating cardiac auricle during immersion hypothermia and after three minutes of anoxic anoxia during normothermia and hypothermia. (Reproduced by courtesy of *American Journal of Physiology.)*

We have determined the distribution of radioactive potassium and sodium in the myocardium during hypothermia[56] and found a reduction of the potassium/sodium ratio (Fig. 1). The same disturbance could be aggravated by subjecting the hypothermic heart to anoxia. Thus, the increased irritability of the myocardium during hypothermia and anoxia has a common chemical denominator in the decreased potassium/sodium ratio. The inability of anoxic tissue, deprived of its aerobic energy to repeal actively the intrusion of sodium and to retain its potassium, results in a lowering of the electrostatic potential across the membrane.[70] It is not too difficult to understand that if all the other organs in hypothermia "go to sleep," the heart still has to stay awake and to go on with its work. Although the passengers in the cabins of the ship are all asleep, the fellows down in the boiler room still have to burn carbohydrates and to work the "sodium pump." They do not shovel the fuel as fast as when their temperature was high, but now each single move takes longer and they are not given enough time off to recharge their batteries to bail out the rising sodium and to recover the lost potassium. As this process goes on they have to use more and more of their available energy for their attempts to push out the sodium, instead of for the original task to make the ship run and when they finally drown in sodium the passage comes to an end.

Such a process can partially explain myocardial failure in poorly oxygenated animals and patients and the later onset and less frequent ventricular fibrillation under hyperventilation.[112] However, it does not explain the mechanism of ventricular fibrillation in well oxygenated animals in whom coronary flow is not only sufficient[4] but due to decreased vascular resistance more than adequate[99] so that no signs of myocardial failure can be detected.[3]

In an evaluation of a causative effect of calcium on hypothermic fibrillation one is hampered by the lack of determination of myocardial calcium content and by the masking of possible variations by total calcium determination. It is the ultrafiltrable or ionizable calcium fraction only which varies inversely with the hydrogen ion concentration.[113] Still, the circumstantial evidence for an active participation of calcium is an impressive one. Hypothermic hearts show a much greater sensitivity to the effects of calcium and potassium than those at normal body temperature[30] and the rise of ionizable serum calcium during respiratory acidosis may account for the frequency, and the fall in ionizable calcium during hyperventilation for the low incidence of ventricular fibrillation. Furthermore, ten hypercapnic dogs suffering fibrillary death exhibited a positive arteriovenous calcium difference, whereas, eight hypercapnic dogs who went into cardiac arrest without fibrillation showed a slightly negative myocardial calcium balance.[19] Thus, regardless of the low blood pH, it was always the entry of calcium in the myocardium which determined the outcome. The observation that frogs in winter have a low and in summer a high serum calcium, and that the injection of calcium converts winter frogs into summer frogs, is a fitting biologic analogy.[79] Thus far, we have seen that changes in potassium, sodium and calcium occur in the hypothermic heart which are compatible with cellular anoxia, but in the absence of anoxemia we have been unable to localize the anoxic injury.

3. *Histopathological Changes.*—It is symptomatic of the contemporary neglect of systematic morphologic studies that only recently generalized interstitial edema,[102] fatty infiltration, depletion of glycogen and vascuolization of cells[74] as well as small necrotic foci were found in the myocardium[101] at temperatures considered optimal for cardiac operations. These foci of myocardial necrosis corresponded grossly and histologically to the successive stages of myocardial infarction[2] (Fig. 2).

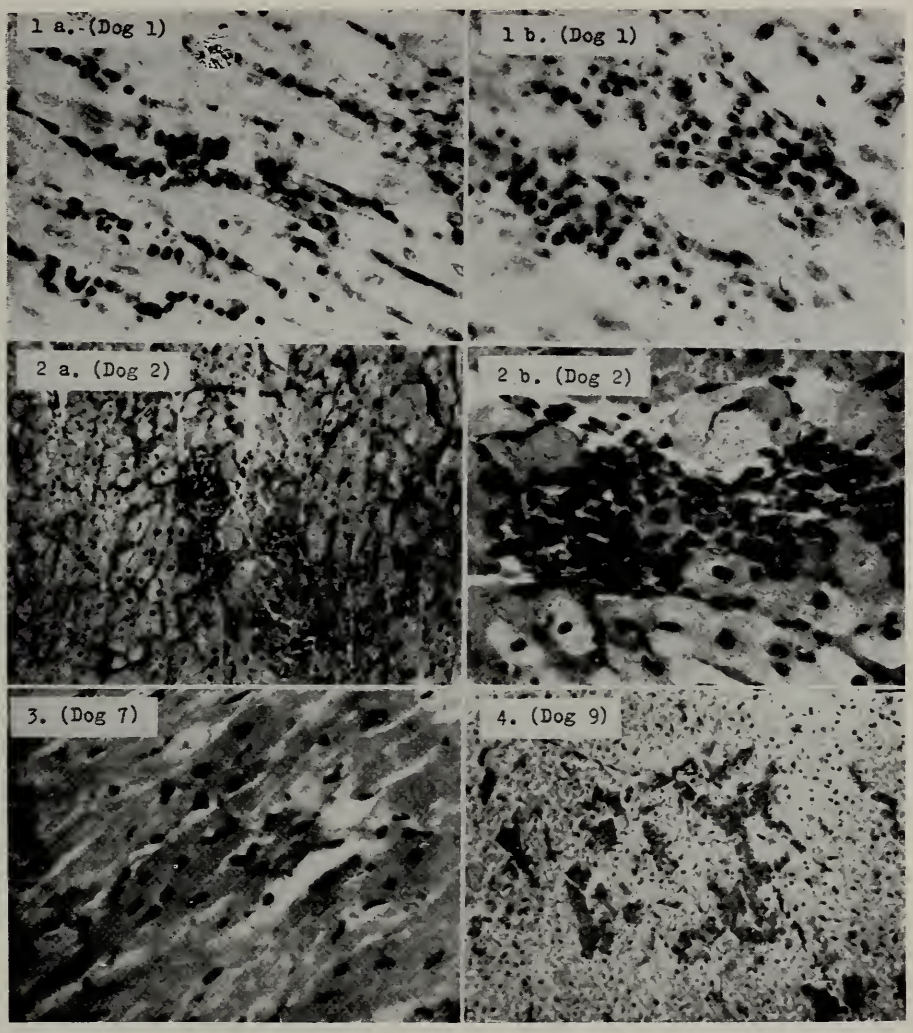


Fig. 2. Hyaline necrosis of myocardial fibers associated with early reactive cellular phenomena caused by immersion hypothermia of 26° C. of four hours' duration. H. S. S. Sarajas: Evidence for Heart Damage in Association with Systemic Hypothermia in Dogs. American Heart Journal, 51:298-305 (Feb.) 1956. (Reproduced by courtesy of *American Heart Journal.)*

4. *Physiopathological Changes.* — The most plausible cause of microscopic myocardial infarcts is microscopic coronary occlusion or, functionally speaking, cessation of blood flow in some capillaries.[85,98] Microscopic observations of minute capillaries and venules in the rat mesentery at 20° C. and in the hamster cheek pouch at 10° C. did not reveal vasoconstriction, but total cessation of flow in at least half of the blood vessels observed. These stoppages of flow through selected capillaries and venules were reversed during rewarming.

If we take a blood sample from a vein we will obviously aspirate flowing blood from perfused tissue only, and we will miss the chemical changes which occur in the stagnating blood of microscopic capillaries and venules which is not available to our syringe. If this phenomenon is generally applicable to all organs—as histochemical evidence strongly indicates—then it is not surprising that the search for over-all chemical changes in the systemic blood has been mainly negative, because

we were literally "barking up the wrong vascular tree." One can explain the detectable changes of myocardial anoxia in coronary sinus blood by the higher metabolic activity of the heart and the possible stoppage and re-establishment of flow through some capillaries due to the changing ventricular contractions. The tiny foci of myocardial anoxia, increasing in number and size as hypothermia progresses, could easily produce gradients of potassium, sodium, calcium and hydrogen between neighboring fibers and thus account for the electrocardiographic time course of repolarization and ventricular fibrillation. The sequestration of blood in capillaries may also solve the mystery of the missing platelets and leukocytes[61] which may under these conditions agglutinate more readily than red cells. If it could be established that the degree of fall in leukocytes and platelets in the systemic blood is proportional to the stasis in capillary beds, a simple test would be available for the study of this hidden phenomenon in the intact animal. That such a relationship might exist is indicated by the interesting observation that in cooled dogs with autonomic blockade, the platelet count remained unchanged.[60]

Capillary perfusion deficiency is the most probable pathologic basis of hypothermia and throws light on the progressive metabolic acidosis which develops in the presence of a normal pCO_2 and decreased CO_2,[33] and on the cardiac decompensation and increasing death rate which occurs if a stable body temperature of 23° C. is extended to twenty-four hours.[32] The time limit of stable, moderate hypothermia lends support to the growing evidence that the lowering of body temperature as an adjunct to open cardiac surgery does not merely produce a state of reduced physiologic activity, but also one of severe pathologic dysfunction. If used for a short period one may "get away with murder," but this does not change the indictment. To change the terminology from "slow motion life" to "cold stress" with or without "alarm reaction" or "general adaption," would expand our vocabulary without increasing our knowledge.

Possible Subjects of Future Investigations

At this point of the discussion it may appear that hypothermia *per se* has had its short moment of truth in the bright arena of cardiac surgery and is headed for oblivion. Albert Einstein warned us not to give up an useful theory too soon, by saying: *"Once a theoretical idea has been acquired, one does well to hold fast to it until it leads to an untenable conclusion."* There are many stubborn facts uncovered by physiologists of many lands which should warn investigating cardiac surgeons that they may be burying hypothermia alive.

Extracorporeal Circulation

The urgent need for surgical repair in congenital and acquired heart disease provided the vigorous and imaginative impetus which has made the short-term application of so-called "artificial heart and lungs" a clinical reality. Since this name might imply the almost sacrilegious creation of these organs by human effort, the term pump-oxygenator, which describes the limited function of these devices, appears to be more appropriate. It is hard to single out one investigator or one discovery which has made this brave, new world of cardiac surgery possible because the seemingly sudden eruption of brilliant exploits is due to a century long smouldering of intellectual curiosity. The technical details of total body perfusion have been perfected to such a degree, that the difficulties encountered are not those of mechanical, but of biological engineering. The great variety of available instruments prove that all pump-oxygenators will do two things only: they pump and they oxygenate. It is not the kind of a car, but the kind of driving, just as it is not the kind of anesthetic, but the kind of anesthetist, which will prevent accidents. The unprecedented combination of instrumental and physiologic intricacy necessitates teamwork and makes the lone-wolf type of worker or the egotistic soloist a luxury. This does not imply that a large orchestra of well-trained musicians will guarantee success, since they still need the inspiring drive and sensitive interpretation of a conductor. A reasonable constancy of this team should also be assured, because nothing can ruin the best orchestra faster than a rapid succession of guest conductors. A rich instrumentation with a physiologist as concert master may be advisable, though one should be aware of the fact that the interdisciplinary approach may produce cross-fertilization, as well as cross-sterilization. Because of the duration and complexity of such experiments, strictly controlled conditions are almost impossible and the intangible human factor gains in importance. Just like King Midas turned anything he touched into gold, the sur-

geons in Minneapolis[81] succeeded with controlled cross circulation, perfusion from a reservoir of arterialized blood, the use of a dog lung and of an artificial oxygenator. Other investigators may change midstream from one horse of the apocalypse to another and disaster is inescapable—as expressed in an ancient proverb: "*Quot licet Jovi non licet bovi.*"

Principle of Pump-Oxygenators

1. *Pumps.*—Any pump which moves fluid in one direction can serve as a blood pump, provided blood is treated with the gentleness it deserves. The safest way to start is always to imitate nature and to produce a pulse wave of high amplitude. A mechanical or hydraulic piston compressing a rubber membrane[21] with internal valves to give direction to the flow, has served this purpose admirably during the last thirty years.

An electrically controlled gas piston[14] which avoids contact with any moving membrane, treats the blood with even greater respect.

More frequent pulsations of lower amplitude can be produced by occluding an elastic tube by the circling motion of rollers,[67] metal fingers[100] or any other transmitted wave. This was an important innovation because it proved that the frequency and configuration of the normal pulse are not necessary.

The obvious next step was the elimination of all pulsations[116] and the demonstration that continuous flow for six hours maintained all normal functions. By inserting a large elastic chamber into the outflow tube one can confirm this finding easily. The heart just happens to be a hollow muscle with forceful pulsations and inimitable valves, but the dogs do not care about that at all. All they want is oxygen.

2. *Oxygenators.*—An attempt to imitate pulmonary function in the laboratory appears at first thought to be a foolhardy bravado of Münchhausian proportions, since it implies the spreading of about 5 liters of venous blood into a microscopically thin film covering an oxygen tent of the surface area of a tennis court and returning it under high pressure into an artery—all in one minute. Still, it has been done more than 2000 times.

Up to now only two principles have been discovered to produce the huge interface between red cells and oxygen. In 1885 Max von Frey and Max Gruber spread blood over the inner surface of a rotating cylinder (Fig. 3) in order to study the metabolism of isolated organs[34] and

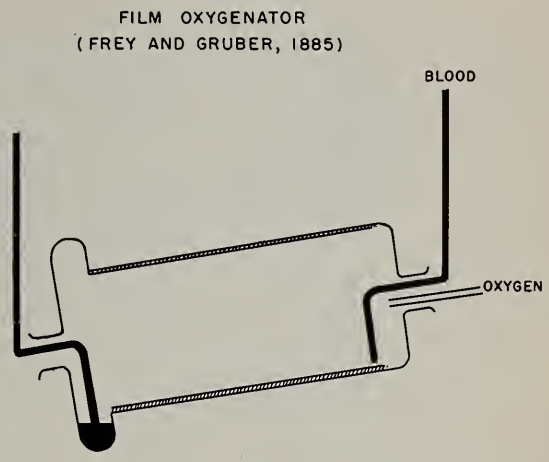


Fig. 3. Principle of film oxygenator by Frey and Gruber, 1885.

although their maze of tubes and bottles served their purpose, most physiologists preferred to use the circulation by another animal. Lasting credit goes to the vision and perseverance of Gibbon who developed the principle of blood filming and reported the maintenance of life during clamping of the pulmonary artery in 1937,[38] the first series of consecutively surviving dogs after total cardiopulmonary by-pass in 1952[39] and the first successful human application on May 18, 1953.[40]

The kind and shape of surfaces blood could cover is limitless and at present highly efficient oxygenators consist of screens which are filmed with blood like window screens on rainy days[95] or rotating discs dipping into a trough of blood like a great number of phonograph records being played at the same time.[6] A most promising development is based on the observation that blood can be oxygenated by flowing through the cellophane tubing of an artificial kidney[75] and thus a large surface area between sheets of oxygen-permeable membranes can be created.

In the only other developed principle of oxygenation the large interface between red cells and oxygen is created inside the blood by bubbling the gas through it. This was first attempted by W. von Schroder in 1882[102] who studied the urea production of a perfused kidney. So little did he think of his bubble oxygenator that he did not even publish a diagram and the author

hopes that the drawing comes close to Schroder's description (Fig. 4). From an elevated reservoir a bottle is slowly filled with blood while air is bubbled into it. On top of this bottle is another

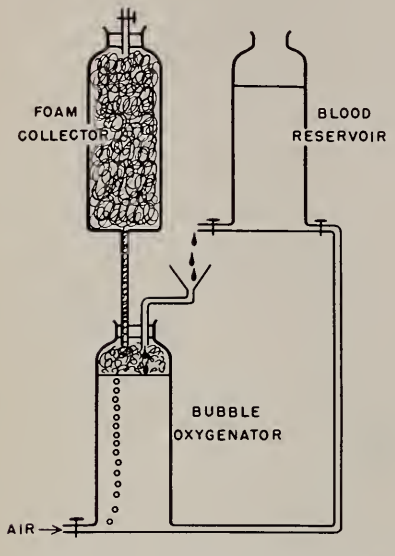


Fig. 4. Principle of bubble oxygenator by Schröder, 1882.

one to prevent the foam from spilling over the table. Schroder had to oxygenate by air bubbles many liters of blood to perfuse a dog's kidney and when finally all the blood was converted into pink foam, he had to start all over again. Schroder did not have an efficient bubble oxygenator but he had a very good idea. This problem was re-examined by Clark, Gollan and Gupta in 1950[13] and it was found that a fine dispersion of oxygen into blood, like an incorporation of millions of tiny alveoli without membranes, produced instantaneous oxygenation of large volumes of venous blood. The excess of tiny bubbles was made to coalesce into large ones by bringing them in contact with a large surface area coated with an antifoam compound, and after the large bubbles, consisting of oxygen and carbon dioxide, had escaped to the atmosphere, the blood, freed of gas bubbles, was returned to the animal.

Fortunately, the antifoam compound is harmless and a small amount diluted in a large volume of an organic solvent can coat efficiently the defoaming surface to prevent embolic phenomena. The smaller the size of the bubble the more efficient the oxygenation and one can calculate that 1 ml. of oxygen dispersed into 1 million bubbles would mimic the surface area of the lungs.[11] It is obvious that smaller bubbles will also need a larger antifoam surface area and it is this misconception of the size of the defoaming surface which has prevented the widespread application of the most efficient method of blood oxygenation. The passage of an emulsion of tiny oxygen bubbles into the outflow line is undesirable and can always be prevented by the proper design of a sufficiently large defoaming surface area, but it is not as dangerous as one might think. During the early development of this type of oxygenator many dogs received such tiny oxygen bubbles intra-arterially without any clinical detectable neurological damage. In fact, the intravenous administration of a fine dispersion of oxygen can maintain the life of dogs breathing nitrogen for one hour.[78] In the death of an artificially oxygenated animal oxygen embolism is easy to suspect, but hard to prove.

Oxygenation with big bubbles requires more time in a larger blood volume, but the defoaming surface can be smaller. Although counter flow makes this procedure more efficient,[42,115] most investigators let blood and oxygen flow in the same direction.[80] At present, the question as to the best equipment to guarantee the survival of patients is as difficult to answer as the question of the best house to assure a happy home life. There is little doubt that a simple and small device requiring the least controls and tests will evolve.

Physiology of Total Body Perfusion

The availability of efficient pump-oxygenators extends the study of a perfused organ to the study of a perfused organism. An evaluation of the effects of total body perfusion is made difficult by the fact that the procedure affects the perfusate as well as the perfused and that an exact duplication of all physiological parameters is unattainable.

All aspects of safety and efficiency of the equipment and procedure can be tested in closed-chest animals and such a simple experiment can be used to acquire the conditioned reflexes to sense technical difficulties before they start.[49] As a next step, double-lumen balloon catheters can be introduced into the large veins to produce a cardiopulmonary by-pass in unanesthetized dogs[47] and if such animals survive without ill effect, the experimenter is ready for the big jump: to open the chest. If from now on animals do not wake up properly or die, the cause should be sought in a cumulative chain of little anoxic insults like anesthesia, surgical trauma, hypotension during the cannulation of the right auricle, blood loss, faulty artificial respiration, hemothorax, pneumothorax

and infections. By such a step-wise procedure of testing and learning the investigator who enters this difficult and challenging field may save himself a great deal of confusion and disappointment and on rare nights he even may go home, instead of "going to the dogs."

1. *Corpuscular Elements.*—The early fears of excessive destruction of blood cells by pump oxygenators have fortunately not come true and the degree of hemolysis has been reduced to an acceptable level. However, the life expectancy of the red cells subjected to the procedure is reduced to about one third of normal[62] and the exploration of a possible hemolytic immune mechanism would be of interest.

It is not known whether the much greater reduction of leukocytes and platelets is due to destruction or to retention in the extracorporeal circuit. Since as much as 50 per cent of platelets disappear at times, one should be able to detect their presence on the surface of the instrument by a serotonin determination of the wash water. It is hard to explain why there is no marked difference in the degree of these changes after the use of various types of instruments, and therefore, it might be that these cells are sequestered in stagnating capillary beds.

2. *Blood Clotting.*—Many years ago the fear was justified that postoperative hemorrhage after the injection of large amounts of heparin would mar success in human applications. Experience has shown, however, that meticulous hemostasis, accurate titrations with protamine and careful replacement of losses with coagulable blood have moved this danger from the top to the bottom of the list. Therefore, it is safer to use more heparin than absolutely necessary since the damages due to a too low heparin level, like fibrin embolism and severe hemolysis, are irreparable. Considering the ever increasing complexity of the clotting mechanism, it is sheer luck that extracorporeal circulation has not contributed a new factor.

3. *Flow Rate.*—In theory, there is no problem because the basal metabolic rate and the cardiac output for all age groups are known and an equation can be written which can serve generally as a reliable guide (Fig. 5).

The absence of mortality due to perfusion in thirty-nine consecutive cases in which the cardiac index of the patient was met by the flow rate is another proud accomplishment of the surgeons and physiologists at the Mayo Clinic.[73] Forty consecutive cases with a wide variety of cardiac

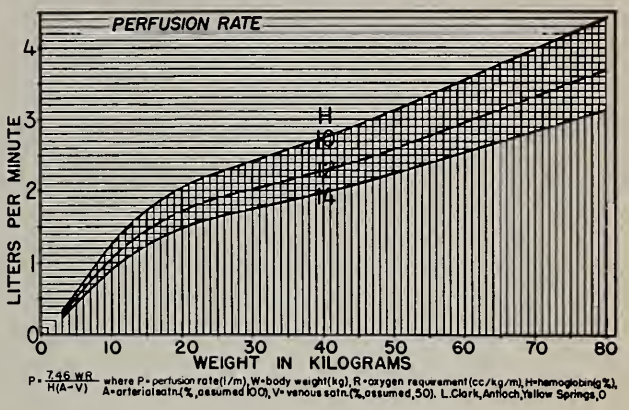


Fig. 5. Calculation of adequate perfusion rate. (Reproduced by courtesy of Charles C Thomas Company, Springfield, Illinois.)

lesions with only one postoperative death were also reported by the group of dynamic surgeons of the University of Minnesota[114] who used a somewhat lower rate of flow. This is not surprising and indicates that there are many other important factors besides rate of flow. For instance, the first group maintained oxygen tension in the arterial line between 100 and 250 mm. Hg, the latter derived additional benefit from a much higher oxygen tension.

The surprising phenomenon that during controlled cross-circulation and after occlusion of both vena cava, the venous return from the azygos vein, or about one-fifth of the normal cardiac output, provides sufficient flow to permit intracardiac surgery[1] cannot be applied to perfusion with pump oxygenators, unless the conditions of cerebral venous flow are kept the same in both conditions. After the occlusion of the vena cava some collateral cerebral venous blood returns via the azygos vein and thus a controlled increase in the cerebral venous pressure and cerebral spinal pressure occurs. This back pressure probably slows down capillary flow and makes a more complete extraction of oxygen possible, since the electroencephalogram remains normal. The moment cerebral venous pressure falls, the electroencephalogram disappears.[87] If the azygos vein is tied off and the central venous pressure is kept normal by drainage into a pump oxygenator, all components of the "azygous flow principle" are abolished.

4. *Criteria of Adequate Perfusion.*—At present there is no single physical measurement which can compare with the best criterion of adequate perfusion, namely, the survival of the patient.

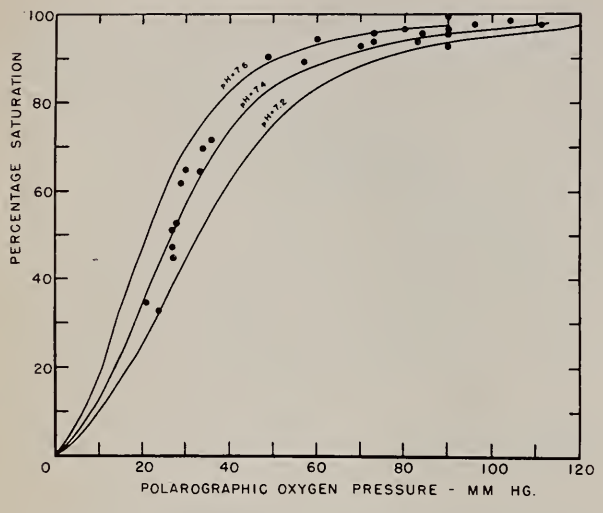


Fig. 6. Oxygen dissociation curve in whole blood as determined by oxygen saturation, pH and direct polarographic measurement of oxygen tension with a Clark electrode.

It seems that constant monitoring of the electroencephalogram comes closest to the requirement of a single reliable test, because it is a sensitive and rapidly reacting indicator of available oxygen in the most sensitive tissue, the brain.

The degree of oxygen saturation of the mixed venous blood in the inflow line to the instrument is the final result of total oxygen supply and demand of the body and therefore constitutes a direct measurement of the adequacy of total body perfusion. Any factor which upsets this vital balance, like flow and oxygen saturation of arterialized blood to all tissues, will effect this measurement. If the saturation of the mixed venous blood is kept between 70 to 80 per cent saturation during the entire period of the patient's stay in the operating room, there is no reason to suspect that the tissues Gargantuan appetite for oxygen has not been satisfied at all times. In addition, the normal electroencephalogram gives assurance that the distribution of food has been satisfactory to the most demanding customer. The difficulty in recording continuously venous oxygen saturation does not detract from its importance.

Oxygen saturation and tension follow an almost linear course in the venous part of the dissociation curve, and therefore, venous oxygen tension measurements would be at least as valuable as indicator for adequate perfusion as venous oxygen saturation. Based on the principle of polarography[64] platinum electrodes can serve as cathodes[22] and if they are protected from direct contact with blood or tissue by a plastic membrane[11] they record oxygen tension independently of pH. In fact, if temperature and turbulence of blood are kept constant, the accuracy of the recording of venous oxygen tension is high enough to make one envisage an electronic control of the rate of perfusion by such a device (Fig. 6).

Constant recording of arterial and venous blood pressure and measurement of blood flow may be listed next, because the methods are readily available. Since the pressure-flow relationship during extracorporeal circulation is a fairly linear one, these measurements complement each other. The measurement of flow is more important, because the blood pressure during perfusion is influenced by still unexplored vasomotor changes. Even if the extracorporeal blood flow approximates the previously determined cardiac output of the patient, the mean aortic blood pressure is always lower during the perfusion and the central systolic peak exceeds the peripheral one by 5 to 20 mm. Hg.[25] The fact that the pressure-flow curves can be made perfectly linear by the administration of a vasodilator indicates an increased vascular resistance during total body perfusion.[93] There is an increase of plasma epinephrine and arterenol during cardiopulmonary by-pass,[96] but it may not be large enough to raise the systemic arterial pressure. Therefore, it is probable that the increased vascular resistance during perfusion is due to localized closure of arterioles and that the administration of vasodilating drugs may improve capillary perfusion. Other manifestations of a reduction of the patient's circulating blood volume during perfusion may be seen in the fact that the withdrawal of 10 per cent of the calculated blood volume will reduce the rate of flow by almost 50 per cent and that the flow will continue at such a reduced rate until the small volume withdrawn is returned.[25] To obtain flow rates approximating normal cardiac output of dogs, it is necessary to expand the blood volume to an average of 130 per cent of the control value.[61] Large amounts of blood stagnating in capillary beds can probably be mobilized by increasing the extracorporeal flow rate and the resulting increase in total oxygen consumption[106] may reflect the larger amount of tissue being in turn called for active duty.

The pH is an unreliable criterion of adequate perfusion because in the extracorporeal circuit the highly diffusible carbon dioxide is usually equilibrated with 100 per cent oxygen against the negligible carbon dioxide tension of the atmospheric air and by this excessive removal of carbon dioxide by the "artificial lung" an "artificial pH" is created. Thus, a normal pH may give the investigator a sense of false security because the usual asphyxia warning signal of a lowered pH has failed to sound off in time. Many unexplainable deaths after "admirable performance of the instrument" may be due to the masking of severe anoxia by a normal pH during the perfusion. After the pump is stopped the anoxic injury is slowly unmasked by a falling pH because there is not enough base bicarbonate to neutralize the excess of organic acids and the punishment of postoperative shock will fit the "perfect crime" of inadequate perfusion. The administration of sodium buffers to "doctor up" the blood pH may expand the blood volume temporarily, but the sodium will probably follow the base bicarbonate to create first intracellular and then extracellular edema. It is too euphemistic and insipid a term to call this condition a metabolic acidosis, since this category encompasses such harmless conditions as hyperchloremia, and therefore, the descriptive clinical name of reversible and irreversible anoxic shock may alert the physician more to the inherent danger of the situation and may induce him to reach for plasma and arterenol instead of an "antacid."

It is a different matter to study the effect of carbon dioxide for its own sake and to follow the advice of Lawrence Joseph Henderson: "In studying the interaction between oxygen and carbon dioxide, it is of the first importance not to regard the change in one substance as cause and the change in the other as effect. If we think of our terms mathematically as variables and as functions, the difficulty does not arise." One can convince oneself easily that high alveolar concentrations of carbon dioxide can be tolerated as long as the oxygen requirement of the body is covered since dogs can survive 55 per cent CO_2 and a venous pH of 6.78 for forty-five minutes.[26] It would not be surprising if the Giaja effect of high carbon dioxide tension in hypothermia with its lowering of oxygen consumption and almost twofold increase in cerebral blood flow[71] would also be beneficial in total body perfusion.

Considering the unassailable evidence of anoxic injury due to inadequate perfusion and the lack of evidence of any harmful effect due to overoxygenation, the problem should be redefined from: *With how little blood can I get away with?* to: *How much blood can I get?* Such a general attitude would increase the safety of the procedure in the smaller hospitals, without ignoring the fact that a highly skilled virtuoso can resect and replace the entire ascending aorta in fusiform aneurism using lower rates of flow for shorter periods of time.[18]

Occasional technical difficulties in obtaining the desired rate of flow and the increasing duration and complexity of heart operations will probably induce investigators to search for a wider margin of safety since a large oxygen debt cannot be repaid to the patient, but to his survivors only. By combining hyopthermia and extracorporeal circulation a third technique with the new effects emerges which can overcome the perfusion deficits in hypothermia and extracorporeal circulation.

Extracorporeal Cooling

At the beginning of World War I, J. F. Heymans at the University of Ghent in Belgium constructed a glass cannula with a water jacket which enabled him to cool and to warm the blood in a carotido-jugular shunt in more than 300 rabbits. By directing the flow of blood up or down the jugular vein, he induced pronounced temperature changes in the brain or in the heart and a thorough study of hemodynamic and respiratory functions enabled him to explore the brain damage above 43° C. and the cardiac crisis below 18° C. After the occupation of Ghent in October 1914, these experiments were conducted with feverish diligence because Heymans knew that his moments in the laboratory were numbered. For the last two years he was not permitted to enter his institute and wrote and finished his monumental work without being able to communicate with other investigators or to consult a library.[63]

Combination of Peripheral Cooling and Extracorporeal Circulation

When the possibilities of hypothermia for cardiac surgery were explored after World War II, Heymans' method was revived in England[23] and found even clinical application as vein-to-vein cooling.[8] Although this method can be applied in the open chest without injury to an artery, it

does not overcome the basic limitations of surface cooling.

A next step was taken by many investigators who have shown that ice immersion hypothermia could be made safer by coronary perfusion with oxygenated blood.[16]

When pump oxygenators became generally available such selective perfusion of organs during hypothermia was extended to total body perfusion in animals[69] and man.[104] Such a combination eliminates the danger of ventricular fibrillation by providing adequate body perfusion and simplifies all aspects of the technique of total body perfusion. If the same low flow rate of 40 cc./kg./min. is used in normothermic and hypothermic dogs, the much larger margin of safety at 29° C. expresses itself in a blood pressure rise of 65 mm. Hg. and a rise of venous oxygen saturation of 36 per cent.[72] Because of the greater resistance to anoxia, even lower flow rates have been used successfully in patients for periods not exceeding thirty minutes.[103]

The physiologic advantages of hypothermia and extracorporeal circulation complemented each other, but the technical disadvantages of two separate and successive methods make such a procedure time consuming and cumbersome. One can melt both methods into one by fusing the equivalent of a Heymans cannula into any part of the extracorporeal circuit[48] or by using a pump oxygenator also as a heat exchanger (Fig. 7).

Cooling by Means of a Pump Oxygenator

Although the following discussion contains speculations on some clinical applications, it should be stressed that the function of the physiologist is to explore body functions and not to advocate practical applications. Experimental findings should be confirmed and not promoted.

1. *Anesthesia.*—The animals are pretreated with 50 mg. of chloropromazine because the phenothiazine compounds seem to exert the same beneficial effect in blood cooling as in surface cooling. For tracheal intubation, skin incision to free one pair of femoral blood vessels, as well as for the start of blood cooling, small amounts of a fast acting barbiturate are given as needed. The first wave of cold arterial blood appears to be very painful and therefore an anesthetizing and not a curarizing agent should be used. From now on, there is hardly any need to increase the level of anesthesia, because shivering by blood-cooling is minimal or absent and rapid cold narcosis becomes instrumental before the chest is opened. Thus, the degree and duration of general anesthesia can be markedly reduced.

2. *Cannulation of Blood Vessels.*—One single catheter with multiple openings advanced from a femoral vein into the caval system withdraws enough blood to start the procedure. The oxygenated blood is returned through a long femoral catheter threaded up into the thoracic aorta below the level of the left subclavian artery. By the cannulation of two peripheral blood vessels only central cooling by means of partial cardiopulmonary by-pass can be started without delay. Thus, the oxygen demand of the internal organs is reduced first, before the organism is subjected to the usual hazards of deep anesthesia, thoracotomy, blood loss, artificial respiration and cannulation of the large thoracic blood vessels. This part of the procedure might make it possible to offer the benefit of open cardiac surgery to those patients who need it most, but are considered too poor risks to stand even the preparatory traumas of cardiopulmonary by-pass at normal body temperature. Since partial by-pass of the heart and lungs by the cannulation of peripheral vessels has been shown to be beneficial in pulmonary edema[86] and in the prevention of cardiovascular shock,[54] one might attempt such an acute medical preparation for surgery in those patients whose cardiac decompensation does not respond to prolonged medical management.

The cannulation of the vena cava superior can be done later when the chest is open. For left cardiotomies at low body temperatures, venous inflow occlusion is not necessary since the catheters placed in the right heart shunt the entire reduced blood volume into the instrument.

3. *Blood Clotting.*—During the period of blood-cooling the activity of small amounts of heparin is prolonged and during the rewarming period heparin is metabolized at a faster rate; or, more efficient use of heparin is made while it is needed and faster disappearance of heparin occurs when it is not needed any more. It is not known to what extent the prolongation of clotting time during hypothermia participates in this phenomenon in man.

4. *Hematological Changes.*—Hemolysis is temperature dependent and is reduced during blood-

cooling. The use of smaller instruments for the low flow rate needed also aids in the prevention of hemolysis. The small amount of blood required to prime the instrument lessens the problem of porarily reduced to unphysiologic levels. However, blood volume studies with radioactive iodinated albumen indicate that the entire volume of the less viscous, diluted blood is available for

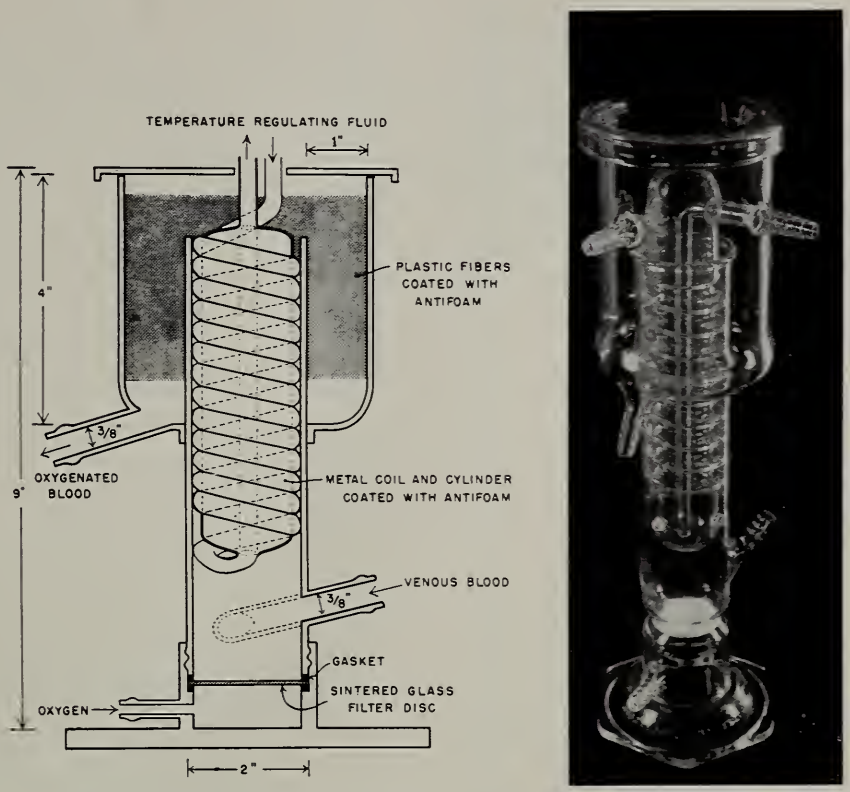


Fig. 7. Diagram of plastic *(left)* and photograph of glass *(right)* microbubble oxygenator with internal thermoregulator.

blood donations, transfusion reactions and viral infections. The blood does not have to be rewarmed before use if the pumping is started slowly.

White blood cells are reduced to about half and platelets to about one third of the normal value, but it is not known to what extent the "physiologic" reduction of these elements during hypothermia contributes to this effect. These changes are rapidly restored to normal by blood transfusions[107] except for a continuing drop of eosinophilic leukocytes.[51] Since there is no evidence of an effect on the pituitary-adrenal axis in this condition a purely speculative discussion of this point would be fruitless at present.

5. *Blood Dilution.*—At first thought the dilution of blood with Ringer's solution to a hematocrit of about 35 per cent would seem *a priori* to be an objectionable or even dangerous step since hemoglobin and plasma proteins are tem-

the artificial circulation, whereas, the highly viscous whole blood does not completely mix with the tracer during blood-cooling. After the perfusion no further changes in blood volume take place if the entire system is filled with whole blood and additional blood transfusions are contraindicated. Quite different conditions are encountered if the blood is diluted with Ringer's solution. While all the added fluid is available to the pump oxygenator during the perfusion, none of it remains available to the heart 15 minutes after the perfusion.[50] This rapid disappearance rate of Ringer's solution after the perfusion makes it possible to replace all the diluting fluid with fresh, coagulable blood. Due to the obvious complexity of fluid shifts during rewarming from the hypothermic state produced by cooling of diluted blood, hematocrit determinations are misleading. Blood volume determinations with tagged red cells and tagged albumin would be of great interest, but are impractical. The constant monitoring of arterial and venous pressure during the re-

warming period is the best criterion of circulating blood volume and the need for more blood transfusions.

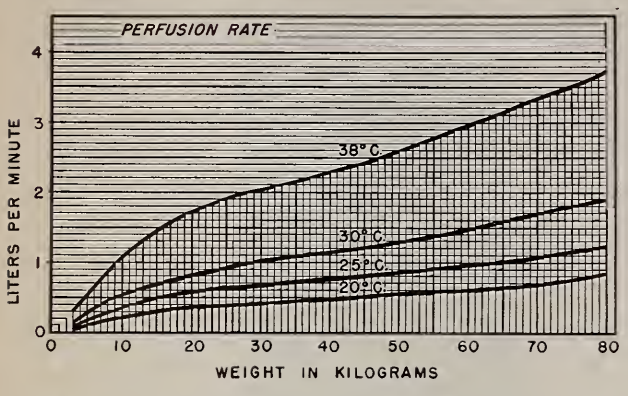


Fig. 8. Calculation of adequate perfusion rate at various body temperature.

6. *Electrolytes.*—Significant changes of the serum cations and anions do not occur after hypothermia by means of a pump oxygenator[107] and the legitimate question should be asked whether this is a desirable goal. French physiologists have shown that the constancy of the "millieu intèrieur" is not ideally suited for the hypothermic heart and that a new "équilibre thermocationique" should take its place.[94] To achieve the optimal amplitude of contractions at lower temperatures the extracellular bath should contain less potassium and more calcium and magnesium. This finding is of phylogenetic interest because the serum of many lower animals contains an increased amount of magnesium while the animals are cold.[90]

7. *Rate of Flow.*—On the basis of the best available estimate for optimal rate of flow at normal body temperature[12] one can calculate the optimal flow rate at lower body temperature[8] from determinations of oxygen consumption and cardiac output during peripheral cooling. No information is available yet on the oxygen consumption of dogs with differential hypothermia by blood cooling, and therefore, the flow rates used represent empirical experience with survival of the animal as the only criterion. If one withdraws blood from both vena cava by a pump, one can circulate the cardiac output corresponding closely to the degree of immersion hypothermia; or at 30° C. one-half and at 25° C. one-third of the normal cardiac output is required to provide adequate perfusion. However, at times one can notice that over-oxygenation of the animal results, which is not harmful but may not be necessary.[47] If one withdraws blood by gravity from one catheter only, the animal sets its own rate of flow at various temperatures (Fig. 9) which is much lower than the cardiac output of

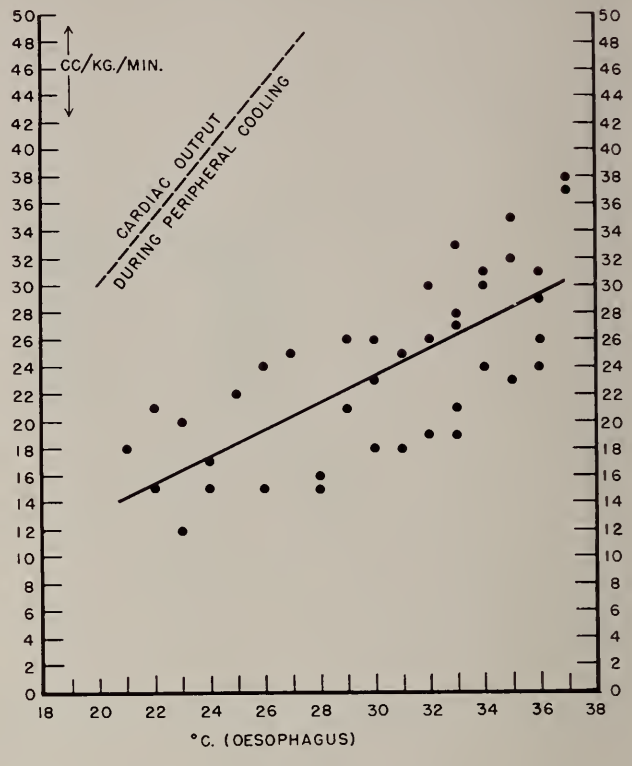


Fig. 9. Venous blood flow from one peripheral catheter during hypothermia by blood cooling. (Reproduced by courtesy of Charles C Thomas, Company, Springfield, Illinois.)

dogs during peripheral cooling. However, due to the differential cooling and perfusion of the organs which need the greatest protection, such low rates of flow are sufficient for about thirty minutes of cardiopulmonary by-pass. Higher flow rates can be achieved by an additional catheter and by adding Ringer's solution to the circulating blood volume.

8. *Temperature.*—Heymans observed the differences of temperature within the body by cooling the blood in a carotido-jugular shunt, but the temperature differences produced by cooling blood with a pump oxygenator are more pronounced since the flow rate does not depend on the animal's own circulation.[89] Temperature gradients of 20° C. (Fig. 10) between different parts of the body can be induced by the choice of various arteries and rate of flow.[57] Since the change of temperature of an organ depends directly on the rate of perfusion with cold blood, one can calculate the distribution of blood among the various

organs. Whereas, the fall of temperature is very rapid in the internal organs, it is very slow in the skin, subcutaneous tissue and muscle, indicating that brain, heart, liver and kidneys, or only 5 per cent of total body weight, receive about 60 per cent of total blood flow. Although the normal kidney blood flow is about four times greater than that of the heart or the brain per gram of tissue, the heart and the brain cool at about the same rate, which proves that among the internal organs the flow can be directed to favor the more vital organs.[88] Thus, cooling with a pump-oxygenator lowers rapidly the oxygen consumption of the vital internal organs by perfusing them with oxygenated blood, whereas, cooling by ice immersion lowers rapidly the oxygen consumption of the less vital periphery and causes a capillary perfusion deficit of the internal organs.

The difference between these two methods becomes even more marked and of far greater importance during rewarming. During peripheral rewarming the highly increased oxygen demand of the skin, subcutaneous tissue and the muscles, or of the major part of body weight, cannot be met by the decreased output of the too cold heart, which with the other internal organs still suffers from increased blood viscosity. Rewarming with a pump oxygenator rapidly raises the oxygen consumption of the heart and the internal organs by simultaneouly and automatically covering their increased demand with sufficient oxygen and this results in an increased cardiac output first which then rewarms and oxygenates the less vital periphery. Furthermore, the end point of temperature of the heart is difficult to predict during external cooling since the temperature continues to drift in a variable manner, whereas the temperature of the heart can be accurately controlled by internal cooling at all times. Thus, these two techniques to induce hypothermia for cardiac surgery represent the opposite extremes: one creates pathologic disintegration, the other, physiologic integration.[37,43]

9. *Ventricular Fibrillation.*—During cardiopulmonary by-pass ventircular fibrillation has lost its deadly scare and is not more than a cosmetic defect of the electrocardiogram. It can be readily induced by an electric stimulus[65] to stop the pumping action of the heart and to avoid air embolism during left cardiotomies.[105] The operation completed, ventricular fibrillation can be stopped with an electric shock or by injection of potassium chloride, followed by heart massage and calcium chloride to strengthen the contractions.[24]

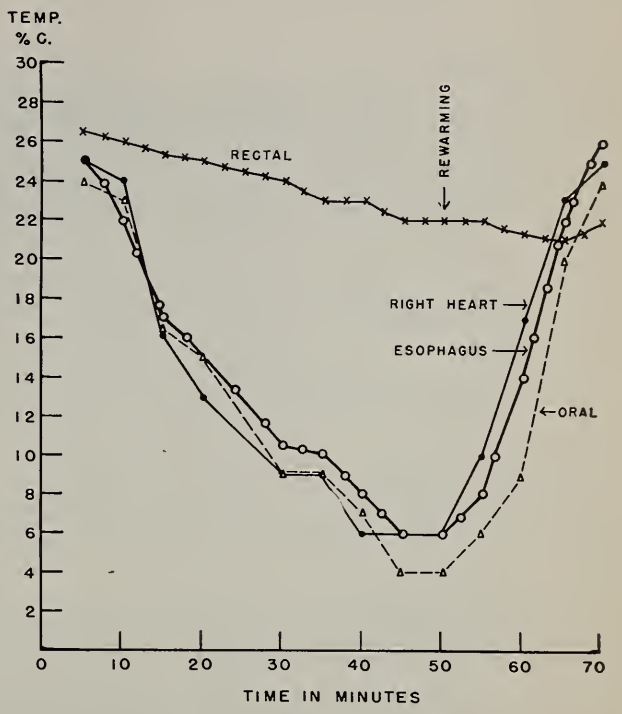


Fig. 10. Differential hypothermia by blood cooling. (Reproduced by courtesy of *American Journal of Physiology.)*

By cooling blood circulated through a pump oxygenator the usually observed hypothermic "injury currents," artio-ventricular blocks, auricular and ventricular fibrillation are not seen and hearts stop beating at about 13° C. (Fig. 11). Arrhythmias, like artio-ventricular block, occur during rewarming and in one experimental series two of eight dogs developed ventricular fibrillation. By an oversight, these two dogs had not received quinidine until cardiac arrest had occurred.[113] Since then, all animals were routinely pretreated with a slow drip of diluted quinidrine (30 mg./kg.) given intravenously or into the instrument although it is realized that a study of the optimal coronary flow rate during rewarming may obviate this step. However, if the injury of ventriculotomy is added, it is always advisable to use quinidine because this neglected "miracle drug" prevents completely the 100 per cent incidence of ventricular fibrillation in hypothermic dogs subjected to coronary occlusion.[108] Ventricular fibrillation is a harmless condition during cardiopulmonary by-pass, but prevention is still better than treatment.

10. *Elective Cardiac Arrest.*—Except for the bronchial artery flow into the pulmonary veins, the heart during cardiopulmonary by-pass behaves like an isolated, perfused preparation[76] and some of the debt he owes the physiologists of past generations by presenting their contemporary successors with a beautiful problem.

Extracorporeal cooling adds further advantages

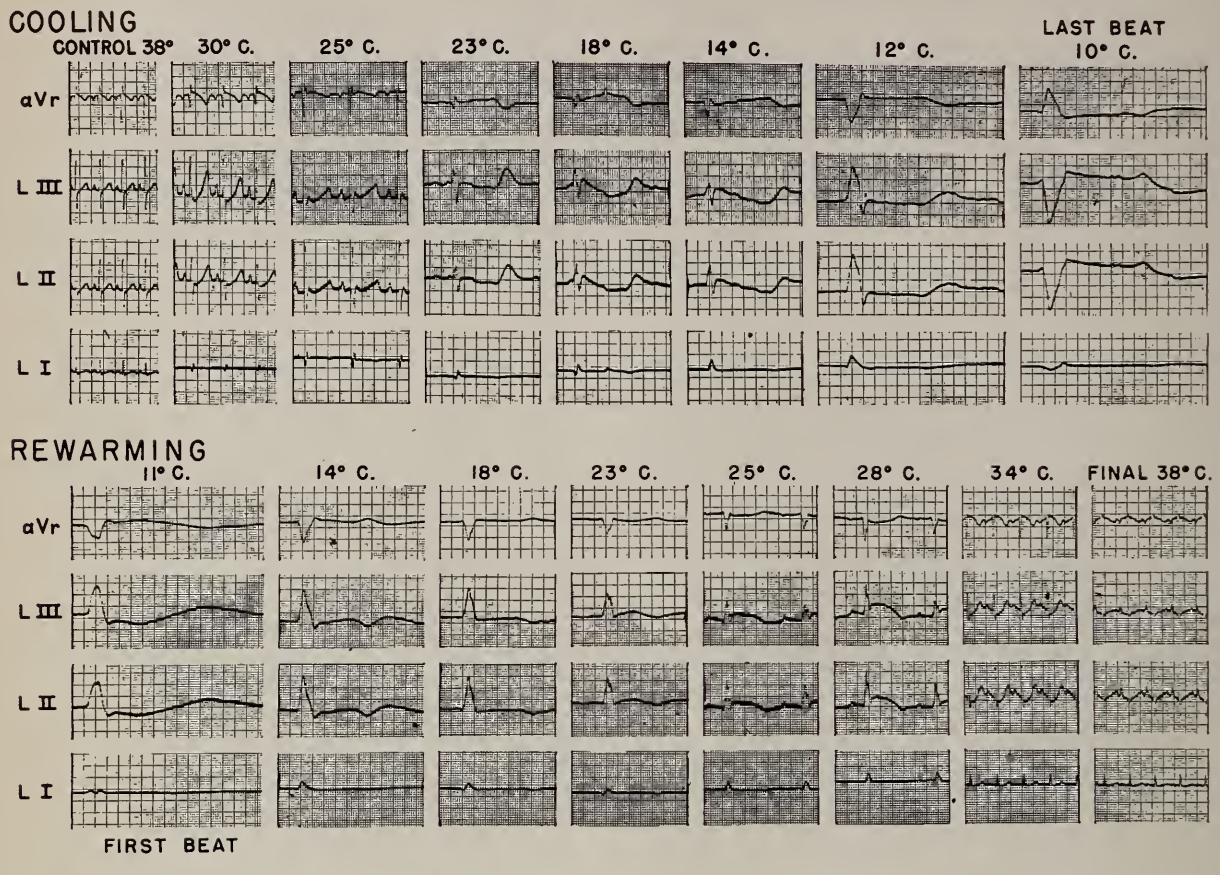


Fig. 11. Electrocardiogram in severe hypothermia by blood cooling. (Reproduced by courtesy of *American Journal of Physiology.)*

the great wealth of information gathered on all aspects of myocardial metabolism can now be applied by cardiac surgeons. The paralyzing effect of potassium,[97] the slowing effect of small amounts of the "vagus-stoff"[83] and the arresting effect in large concentrations of acetylcholine[35] have opened undreamed of vistas of all chambers of the heart.

One can assume that a heart which does not do any external work and does not even contract must have a low oxygen consumption to tolerate prolonged ischemia but no one expected that the carbohydrate energy production in the arrested heart would be only 1/2000 of that in the beating heart. It is even more surprising that the heart does not use lactic acid as the natural source of energy of anaerobic glycolysis[68] and thus, there exists the not unusual situation that the basic physiology of a useful clinical procedure is not understood. This way, the clinician pays off to elective cardiac arrest. The optimal oxygenation of the heart before and after paralysis is made much safer. Due to the greater sensitivity of the hypothermic myocardium to potassium smaller amounts at a slower rate of injection are needed to produce arrest. The period of aortic occlusion can be further prolonged because the metabolism of the myocardium has been lowered before potassium stops the heart beat.[55] This observation may be useful in patients with arteriosclerotic heart disease. There is less danger of distending the paralyzed myocardium because the rate of blood flow can be further reduced. Lastly, the recovery of the hypothermic heart is faster, especially if potassium chloride is used instead of potassium citrate. The hypothermic heart recovers faster because the "step ladder" phenomenon, the amplitude of contractions and the production of energy are greater at 27° C. than at 37° C.[31] During perfusion of the heart with cold, oxygena-

ted blood this temperature optimum is shifted further downward and the most forceful contractions can be recorded at 22° C. (Fig. 12). This finding was due to serendipity, because the aim of the experiment was to measure myocardial oxygen tension during hypothermia and not amplitude of contractions. However, the platinum electrode inserted into the heart muscle is so sensitive to the stirring effect of the moving muscle fibers that one ends up with a reasonable facsimile of a mechanogram instead of a polarogram. This unfortunately invalidates the application of the best method to measure available oxygen of the intact heart[46] and one has to seek consolation in Thomas Henry Huxley's sigh: "The tragedy of science is the shattering bereavement of seeing a beautiful hypothesis slain by an ugly fact."

11. *Hypothermic Asystole.*—Prolonged left cardiotomies can also be performed when the heart beat is stopped below 13° C. by blood-cooling.[50] The heart can be kept in asystole as long as the temperature is kept that low. Experiments to determine the time limit have not been carried out yet. In a series of thirteen consecutive experiments it took about forty-five minutes to stop the heart by physical means only and after twenty minutes of blood rewarming the instrument could be turned off. The longest cardiotomy lasted forty-two minutes. The hypothermic heart in asystole is small and firm and the coronary flow can be kept so low that on many occasions the heart cavity had to be filled with saline to prevent air embolism on rewarming. Nine of these animals were normal long-term survivors and four died of postoperative complications like hemothorax, infection and thrombosis.

12. *Anoxic Tolerance of the Beating Heart.*—For prolonged visualization of the aortic valve to perform corrective surgery or to implant an eventual prosthesis in its proper place, the surgeon has to stop coronary flow to obtain a dry field and the heart should continue to beat to observe and test accurately the function of the valve. These appear to be the most exacting demands for intracardiac surgery because without coronary flow the anoxic heart cannot continue to beat.

Information on the anoxic tolerance of the by-passed canine heart is bound to be contradictory because of the many variables involved, like myocardial oxygenation before aortic occlusion and bronchial artery flow into the pulmonary veins.[9] During extracorporeal circulation bronchial artery flow amounts to about 1 per cent of total arterial

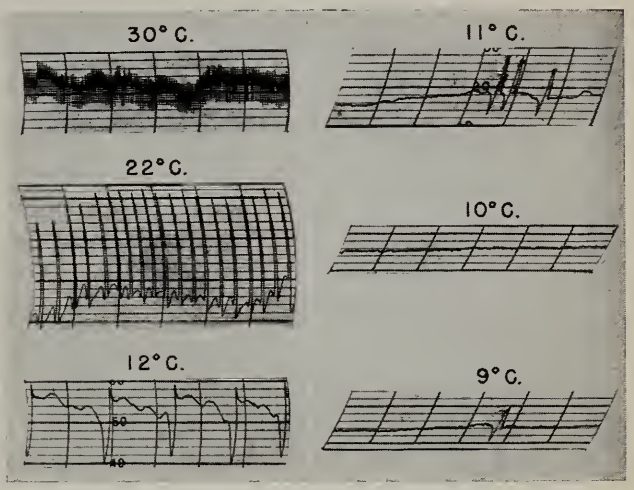


Fig. 12. Amplitude of ventricular contractions during hypothermia by blood cooling recorded polarographically with a platinum electrode. (Reproduced by courtesy of Charles C Thomas Company, Springfield, Illinois.)

flow, but increases with arterial and venous pressure or the use of carbon dioxide to ventilate the lungs and decreases with pulmonary deflation.[99] Within these limitations of standardization, the most reliable information indicates that after twenty-five minutes of anoxia the fibrillating heart of the dog cannot be resuscitated with uniform success.[15] Thus, aortic occlusion of the by-passed canine heart at normal temperature does not create the ideal requirements for exposure of the aortic valve, since the available time is too short for thorough exploration of the anatomy followed by most delicate plastic surgery and the fibrillating heart does not permit a functional evaluation of the corrected or substituted aortic valve.

In man, five minutes of complete myocardial ischemia during cardiopulmonary by-pass at normal temperature caused death due to myocardial necrosis in one case[82] and uneventful recovery after forty minutes in another.[17] It is evident that the varying conditions of the patient's myocardium makes this procedure an unpredictable one, to say the least.

It appears as if extracorporeal cooling may offer some advantages by minimizing the changes of myocardial ischemia on one hand and avoiding

the technical difficulties of retrograde coronary perfusion[82] on the other. The hypothermic and by-passed heart shows a remarkable resistance to total ischemia[53] and in quinidine pretreated dogs

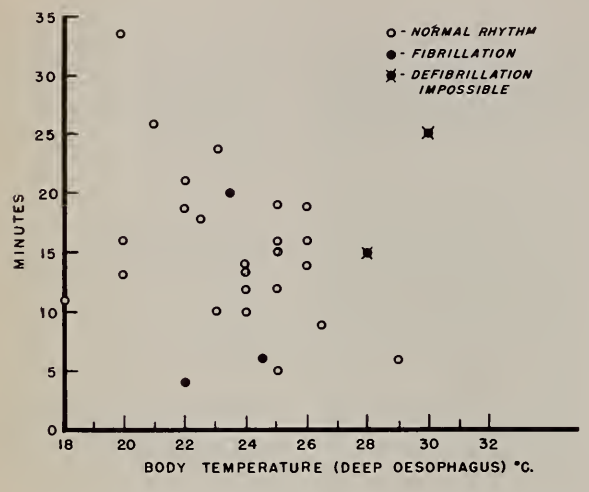


Fig. 13. Anoxic tolerance of beating hearts during hypothermia by blood-cooling. (Reproduced by courtesy of *Proceedings of the Society for Experimental Biology and Medicine.)*

normal rhythm of the heart can be observed after twenty-five minutes of aortic occlusion at 21° C.[13] This is not yet the end point of anoxic tolerance and such information for various temperatures, as well as metabolic studies are not yet available. During such prolonged periods of total ischemia the heart rate decreases in a linear fashion and the electrocardiogram shows frightening but reversible injury currents.[45] On removal of the aortic clamp the heart goes into arrest, which is probably due to release of potassium into the coronary vascular bed and after a minute of perfusion with oxygenated blood the heart starts to beat again. Such periods of coronary occlusion can be repeated if coronary perfusion of two minutes' duration supplies new energy to the heart and in one experiment the myocardium was subjected to three consecutive occlusions of twenty minutes at 24° C. without ill effect. One can envision that after corrective surgery of the aortic valve a constant flow of glucose solution into the left auricle may make visual evaluation of valvular function possible.

13. *Coronary Flow.*—It must have been a disappointing experience for cardiac surgeons who dreamed so long of the "bloodless heart" and labored so hard to perfect complicated machines to that end, to see the operating field flooded again with the swollen rivers of coronary blood. Subsequent studies have shown that the oxygen consumption of a heart not performing any external work is only about one-third of normal,[10] but that the coronary flow still equals or even exceeds the normal level, in spite of subnormal body flow rates and blood pressure.[92] Thus, the heart finds itself suddenly in the Utopian dream of being underworked and overpaid. The surgeon, however, finds himself in a less enviable reality, because he has to cope with a large flow of blood where he expects and needs it the least. One might think that a reduction of total flow would make this coronary tide retreat, but unfortunately the exact opposite results because hypoxia always is followed by an enormous increase in coronary flow.[28]

Studies on coronary flow during extracorporeal cooling at varying temperatures and flow rates have not been conducted yet, and therefore, it is not known whether a reduction in total flow rate would also be followed by an increase in coronary flow, if the hypoxic vasodilatation would be diminished. But if arterial pressure and total blood flow are kept at a relatively high level, coronary flow rates result which are at least three times higher than the ones which correspond to the same body temperature by peripheral cooling.[57] This is probably due to the fact that the periods of coronary flow cessation during ventricular systole become less frequent, whereas, the periods of coronary inflow during diastole become increasingly longer. As long as the contractions increase in force the heart can handle this "embarras de richesse," but below 22° C. the heart becomes progressively unable to eject the excessive coronary flow and severe dilatation with irreversible myocardial failure results. This overstretching of the myocardium during profound hypothermia by blood-cooling can be prevented by perfusing the cerebral and the systemic circulation at different rates of flow, or much simpler, by partial obstruction of the ascending aorta with a screw clamp of the Goldblatt type (Fig. 14). Then the systemic flow rate can be kept high, whereas, the coronary flow can be controlled and reduced to a mere trickle. It may be that this procedure could be of advantage in correction of mitral valvular disease, since the minimal coronary perfusion of the beating heart would not only permit direct vision surgery, but

also direct vision testing of function. To test the competence of an implanted mitral valve prothesis one can fill the left ventricle by continuous flow of glucose solution and observe the movements of

Under these conditions, oxygen is one of the few good things one cannot overdo.

Another observation of general biologic interest can be made. As the temperature falls the amount

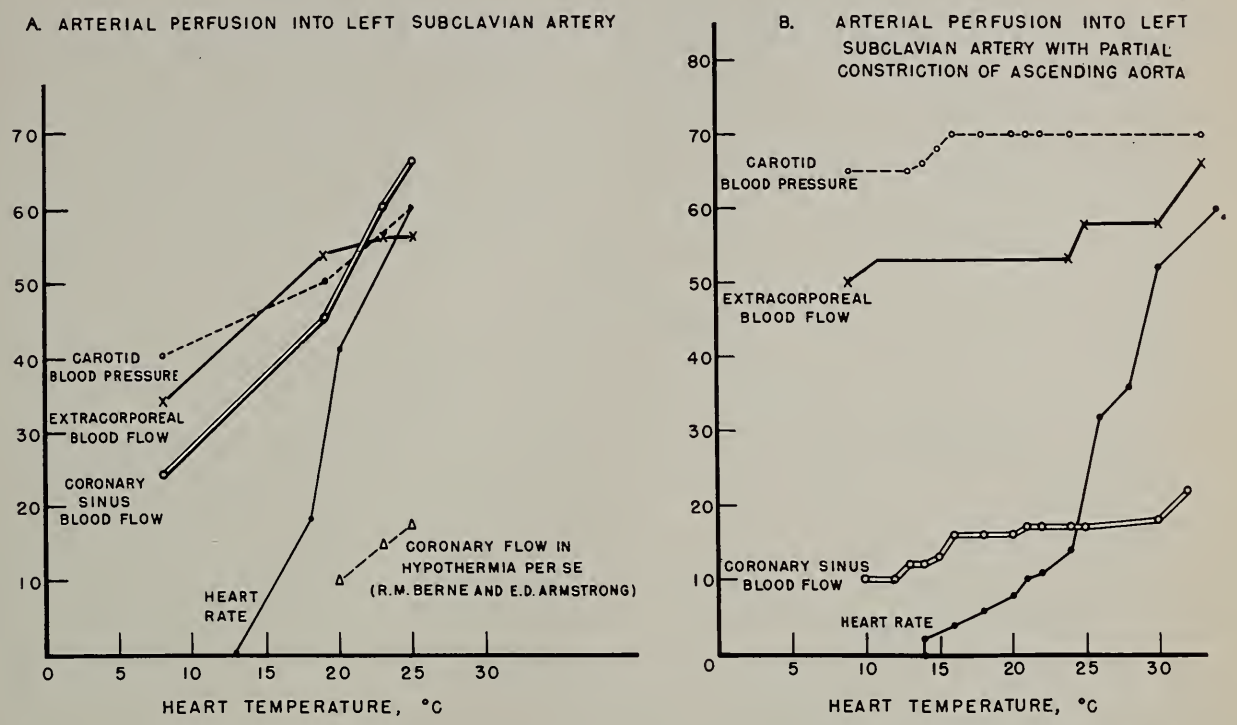


Fig. 14. Reduction of coronary flow by partial constriction of ascending aorta during hypothermia by blood-cooling. (Reproduced by courtesy of *American Journal of Physiology.*)

the plastic valve. Although it is not too difficult to design a competent flap valve, long-term survival has not been achieved yet because sooner or later all dogs die of fibrin or bacterial embolism.[44]

14. *Gas Exchange.*—If one avoids dilatation of the hypothermic heart in asystole by a drastic reduction of coronary flow with a screw clamp on the ascending aorta, one can test the effect of extreme overoxygenation of the rest of the body. With an oxygen consumption of only about one tenth of normal[45] and an almost normal oxygen supply from the instrument, the arteriovenous differences in oxygen and carbon dioxide content can be made to disappear, or one deals with an animal without any venous blood. The venous oxygen tension rises above the arterial oxygen tension of a person breathing air (Fig. 15) and although such a condition is highly unphysiologic, no deleterious effects have been observed in the surviving animals. The conclusion is inevitable, that all dangers during total body perfusion are caused by a lack of oxygen, and not by a surplus.

of physically dissolved oxygen in the water of the plasma rises until it reaches ten times its normal value (Fig. 16). Since at such low temperatures oxygen hardly dissociates from hemoglobin, one can wash out all the red cells from the circulating blood and substitute plasma for it. With a high flow rate the life of such animals can be maintained without hemoglobin, if all the red cells are returned before rewarming.[52] Explorers of the frigid Antarctic Ocean discovered that the blood of the "ice fish," whose scientific name is Chaenocephalus, does not contain any red cells, but that white cells constitute about 1 per cent of its volume. The plasma has about the same oxygen absorbing capacity as human plasma and contains only traces of iron. These weird, transparent creatures, which are almost 2 feet long and weigh about 3 pounds, live without blood pigment and by the absorption of the high oxygen content in the extremely cold water only. For a short period dogs can be made to live like ice fish, and the obvious question arises: *What has this fish story to do with cardiac surgery?* It provides some in-

formation on the greater margin of safety in case of severe blood loss during extracorporeal cooling, since such an experiment drives hemorrhagic shock to its final extreme.

of the circulation without the aid of mechanical devices. On the other hand, the development of efficient pump oxygenators has progressed with such breathtaking speed that the need to lower

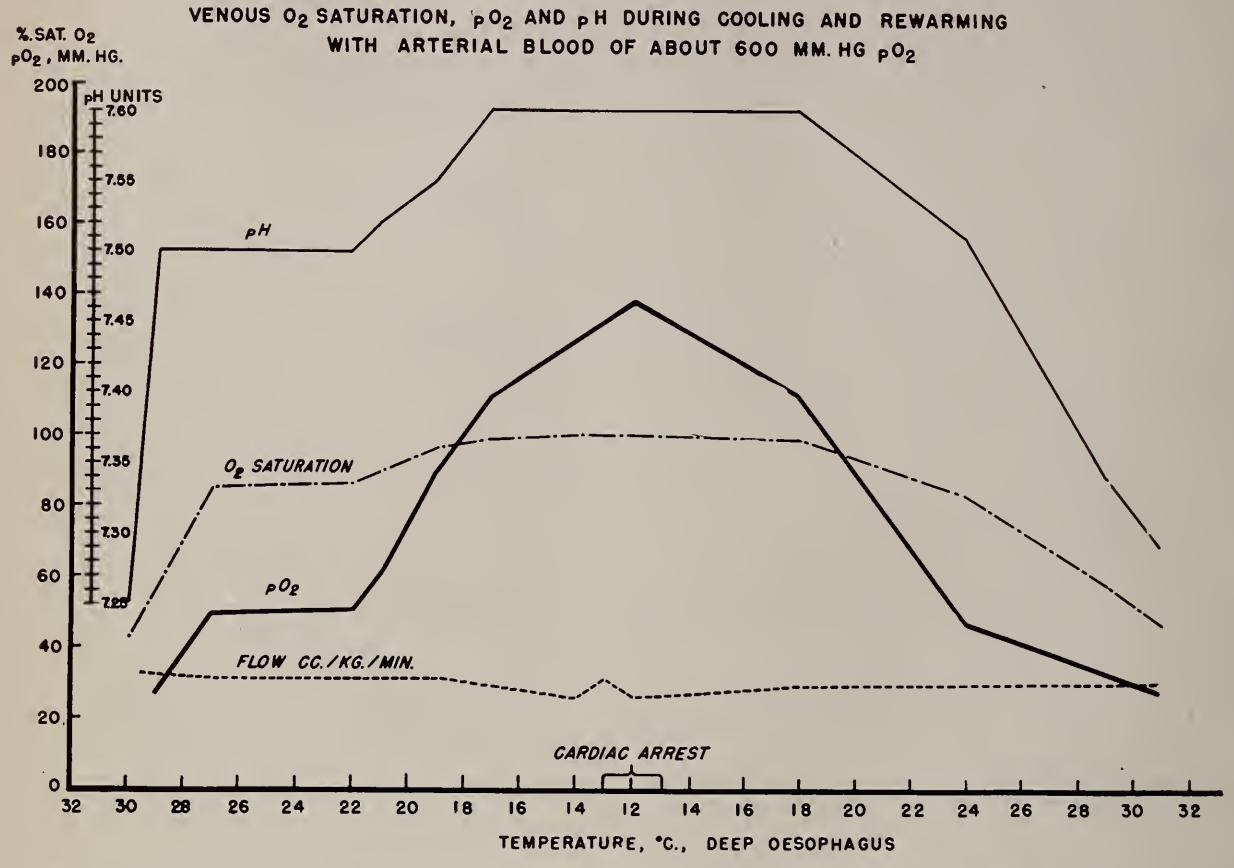


Fig. 15. Venous O_2 saturation, O_2 tension and pH during blood-cooling and rewarming with constant flow of arterial blood of about 600 mm. Hg. O_2 tension.

15. *Pulmonary Ventilation.*—One word has to be said about this subject because it can ruin any experiment with extracorporeal cooling. Overinflation of the lungs, especially with oxygen, should be avoided, because it produces invariably massive pulmonary edema. This may indicate that oxygen poisoning by inhalation and by blood perfusion require different conditions, but the mechanism of this phenomenon is not known.

Outlook

Only an actual need will decide whether any of the experimental studies on hypothermia, extracorporeal circulation and extracorporeal cooling will ever be transferred from the laboratory to the operating room. The beneficial effect of carbon dioxide and of various drugs on hypothermia certainly require intensive study because a condition of real artificial hibernation in man might be produced which would permit prolonged cessation

body temperature may not arise again. Therefore, the following attempt to assign a place for extracorporeal cooling within the present scene should be considered a physiologic meditation rather than a practical suggestion. It is based on a much humbler philosophy since it does not assume *a priori* that man can imitate nature's perfect creation of hibernation or of cardiopulmonary function.

Whereas, during total body perfusion at normal temperature, the rate of flow has to match the inflexible oxygen consumption, during extracorporeal cooling one can adjust the oxygen consumption to the available flow. Instead of the rigid requirement of a high flow rate at normal metabolic level, one gains two variables and can vary both at will. Since the venous cannulae have to be smaller than the vena cava and the arterial cannula smaller than the aorta, it is evident that at times it may prove difficult to circulate the

normal cardiac output or about half of the patient's blood volume. If one falls short of this goal, one can lower the temperature until the mixed venous blood has again a normal oxygen saturation. Thus, neither the optimal rate of flow nor the temperature depend on theoretic considerations, on the formulation of catchy slogans and "principles," on the consensus of opinion of leading authorities in the field, on the official stamp of approval of organizations or on the statistical averages of the last 500 cases, but on the actual conditions encountered at any time during the perfusion. Almost 100 years ago Claude Bernard wrote:

> If we collect a man's urine during twenty-four hours and mix all this urine to analyze the average, we get the analysis of a urine which simply does not exist; for urine, when fasting, is different from urine during digestion. A startling instance of this kind was invented by a physiologist who took urine from a railroad station urinal where people of all nations passed, and who believed he could present an analysis of the average European urine. If we study complex and variable conditions, averages must be rejected, because they confuse, while aiming to unify and distort while aiming to simplify.

Thus, the choice of an initial level of oxygen consumption or the proper supply of oxygenated blood should be a highly individualized one, depending on the estimated duration and anoxic tolerance in the particular case, and the rate of flow a particular instrument can handle comfortably. Surgeons with less experience in small hospitals may be safer if they choose a lower body temperature because they may gain a wider margin of safety in case of technical errors, accidents, hemorrhage and infections. If the instrument, which is also designed, built and operated by fallible humans, should not perform as expected, there may be more time to overcome a technical difficulty. With the greater simplicity and safety of total body perfusion the surgeon may not have to hire so many extras for a spectacular mob scene in his operating room, but may be able to communicate with his few trusted assistants and nurses without the use of intercommunication systems or closed circuit television. Soon he will probably find out that the electroencephalogram is hard to interpret during hypothermia and he will return the instrument to the neurologist. After some time he may learn that the reflected light on his retina is about as reliable and rapid an indicator of venous oxygen saturation as the transmitted light in the photocell and if the venous blood in the inflow line looks almost as "good" as the oxygenated blood in the outflow line, he may

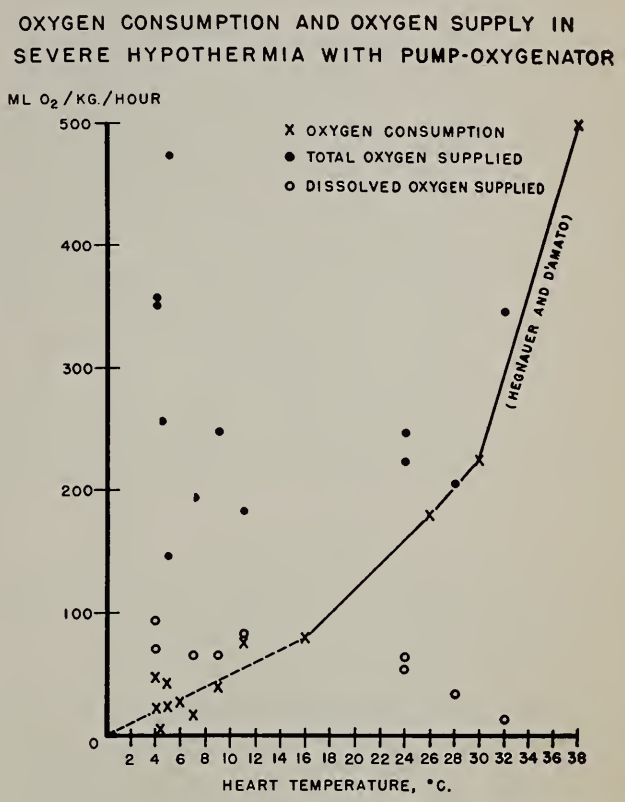


Fig. 16. Oxygen consumption and oxygen supply in severe hypothermia by blood cooling. (Reproduced by courtesy of National Academy of Sciences—National Research Council.)

feel safe enough to return the entire technical exhibit of flow meters, oximeters, pH meters, carbon dioxide analyzers and polarimeters to the clinical physiologist. To his great surprise he may even gain so much self-confidence to trust his own ability in building little gadgets in the machine shop, in making some interesting observations in the laboratory and applying it in a slightly new way in the operating room, instead of waiting for the last word of the gospel caught at the yearly mass pilgrimage to the holy places of cardiac surgery.

Stripped of the awe-inspiring and intimidating complexity of the heart machine age with controls and monitoring devices resembling the dashboard of an atomic submarine and relieved of the delayed and noncommittal reaction of interdisciplinary by-standers, he may make the greatest discovery of all, that he does not have to be a world-renowned heart surgeon to operate inside

the heart, but just a good doctor who can recognize "cyanotic" blood and low blood pressure when he sees them and who has the technical skill to repair a hernia.

On that day he will have found himself again and while scrubbing with his assistant for the next operation he may say: "You know, this thing is not bigger than both of us." Just like the lonely sheriff in the Western movie, he will then be able to face emergencies all by himself. He will have the enthusiasm and equanimity to sustain him through failure and success, and when he has to lay down the scalpel without having received academic honors or public acclaim, he still will be able to say with Laennec:

> I shall consider ample, yea more than sufficient reward for my labors, if it should prove the means by which a single human being is snatched from untimely death.

References

1. Andreasen, A. T., and Watson, F.: Experimental cardiovascular surgery. Brit. J. Surg., 39:548, 1952.
2. Baumgarten, W.: Infarction of the heart. Am. J. Physiol., 2:243, 1899.
3. Berne, R. M.: Myocardial function in severe hypothermia. Circulation Res., 2:90, 1954.
4. Berne, R. M.: The effect of immersion hypothermia on coronary blood flow. Circulation Res., 2:236, 1954.
5. Bigelow, W. G., Lindsay, W. K., and Greenwood, W. F.: Hypothermia: Its possible role in cardiac surgery: An investigation of factors governing survival in dogs at low body temperature. Ann. Surg., 132:849, 1950.
6. Bjork, V. O.: Brain perfusion in dogs with artificially oxygenated blood. Acta chir. scandinav., 96: Suppl. 137, 1948.
7. Brewin, E. G., Nashat, F. S., and Neil, E.: Acid-base equilibrium in hypothermia. Brit. J. Anaesth., 28:1, 1956.
8. Brock, Sir Russell and Ross, D. N.: The clinical application of hypothermic technique. Guy's Hosp., Repts., 104:99, 1955.
9. Burroughs, J. J., and Donald, D. E.: Some factors affecting recovery from stoppage of heart and coronary flow during extracorporeal circulation. Proc. 29th Scient. Session Am. Heart Assoc. 1956, p. 23.
10. Citters, R. L. Van, Ruth, W. E., and Reissmann, K. R.: Effect of heart rate on oxygen consumption of isolated dog heart performing no external work. Am. J. Physiol., 191:443, 1957.
11. Clark, L. C., Jr.: The control and monitoring of blood tissue oxygen tension. Trans. Amer. Soc. Artificial Internal Organs, 2:41, 1956.
12. Clark, J. C., Jr.: Optimal flow rate in perfusion. *In* Extracorporeal Circulation, p. 150. Springfield, Ill.: Charles C Thomas Company, 1958.
13. Clark, L. C., Jr., Gollan, F., and Gupta, V.: The oxygenation of blood by gas dispersion. Science, 111:85, 1950.
14. Clark, L. C., Jr., Hooven, F., and Gollan, F.: A large capacity, all glass dispersion oxygenator and pump. Rev. Scient. Instru., 23:748, 1952.
15. Clowes, G. H. A., and Neville, W. E.: Experimental exposure of the aortic valve. Laboratory studies and a clinical trial. Surg. Forum, 5:39, 1955.
16. Cookson, B. A., and Costas-Durieux, J.: The use of arterial transfusions as an adjunct to hypothermia in the repair of septal defects. Ann. Surg., 140:100, 1954.
17. Cooley, D. A.: Personal communication, Jan. 28, 1958.
18. Cooley, D. A., and DeBakey, M. E.: Resection of entire ascending aorta in fusiform aneurism using cardiac by-pass. J.A.M.A., 162:1158, 1956.
19. Covino, G. B., and Hegnauer, A. H.: Electrolytes and pH changes in relation to hypothermic ventricular fibrillation. Circulation Res., 3:575, 1955.
20. Crismon, J. M.: Resuscitation from deep hypothermia. Army Air Forces, Aero-Med. Lab., Memo. Report TSEAA-695-56A (Dec. 21) 1945.
21. Dale, H. H., and Schuster, E. H.: Double perfusion pump. J. Physiol., 64:356, 1928.
22. Davies, P. W., and Brink, F., Jr.: Microelectrodes for measuring local oxygen tension in animal tissues. Rev. Scient. Instruments, 13:524, 1942.
23. Delorme, E. J.: Hypothermia in dogs. Technical Report ONRL-83-53, Office of Naval Research, London (June 22) 1953.
24. D'Halluin, M.: Le massage du coeur. Presse méd., p. 346, (June) 1904.
25. Donald, D. E., and Moffitt, E. A.: The relation of blood flow and blood volume during extracorporeal circulation in man. Surgical Forum, 7:264, 1956.
26. Draper, W. B.: Whitehead, R. W., and Spencer, J. N.: Studies on diffusion respiration: III. Changes in alveolar gases and pH of venous blood. Fed. Proc., 6:323, 1947.
27. Dubois, R.: Physiologie comparée de la marmotte, Annales de l'Univ. de Lyon, Masson, Paris, 1-268, 1896.
28. Eckenhoff, J. E., Hafkenschiel, J. H., and Landmesser, C. M.: Coronary circulation in the dog. Am. J. Physiol., 148:582, 1947.
29. Edwards, W. F.: De l'influence des agens physique sur la vie. Paris: Crochard, pp. 654, 1824.
30. Elliott, H. W., and Crismon, J. M.: Increased sensitivity of hypothermic rats to injected potassium and the influence of calcium, digitalis and glucose on survival. Am. J. Physiol., 151:366, 1947.
31. Feigen, G. A., Sutherland, G. B., and Macpherson, C. H.: Mechanical response of the isolated electrically driven rat ventricle strip; static and dynamic response to temperature and gas phase. Stanford M. Bull., 10:89, 1952.
32. Fisher, B., Russ, C., and Fedor, E. J.: Effect of hypothermia of two to twenty-four hours on oxygen consumption and cardiac output in the dog. A. M. Physiol., 188:473, 1957.
33. Fisher, B., Russ, C., Fedor, E., Wilde, R., Engstrom, P., Happel, Jr., and Prendergast, P.: Experimental evaluation of prolonged hypothermia. A.M.A. Arch. Surg., 71:431, 1955.
34. Frey, Max von and Gruber, Max: Untersuchungen über den Stoffwechsel isolierter Organe. Ein Respirations-Apparat für isolierte Organe. Arch f. Physiol., 9:519, 1885.
35. Fröhlicher, R.: Untersuchungen über die Wirkungen des Acetylcholins auf das elektrisch zum Flimmern gebrachte isolierte Säugetierherz. Helvet. physiol. et pharmacol. acta., 3:230, 1945.
36. Fuhrman, F. A.: Muscle electrolytes and water following intra-arterial injection of thiopental sodium. Am. J. Physiol., 167:298, 1951.

(Turn to Page 75)

37. Fuhrman, F. A.: Oxygen consumption of mammalian tissues at reduced temperatures. *In* The Physiology of Induced Hypothermia. Washington, D. C.: National Academy of Sciences—National Research Council, 451:50, 1956.
38. Gibbon, J. H., Jr.: Artificial maintenance of circulation during experimental occlusion of pulmonary artery. Arch. Surg., 34:1105, 1937.
39. Gibbon, J. H., Jr.: Discussion note. J. Thoracic Surg., 24:18, 1952.
40. Gibbon, J. H., Jr.: Application of a mechanical heart and lung apparatus to cardiac surgery. Minnesota Med., 37:171, 1954.
41. Gilmore, J. P.: Cardiovascular changes of the burned dog following infusion of intravenous solutions. Am. J. Physiol., 190:513, 1957.
42. Gimbel, N. S., and Engelberg, J.: An oxygenator for use in a heart-lung apparatus. Proc. Surg. Forum, Clinical Congress, Amer. College Surgeons, 1952. p. 154. Philadelphia, Pa.: W. B. Saunders Co., 1953.
43. Gollan, F.: Cardiac arrest of one hour duration in dogs during hypothermia of 0° C. followed by survival. Fed. Proc., 13:57, 1954.
44. Gollan, F.: Physiological effects of artificial heart valves. Trans. Amer. Soc. Artificial Internal Organs, 2:71, 1956.
45. Gollan, F.: Myocardial irritability, The Physiology of Induced Hypothermia. National Academy of Sciences—National Research Council, 451:347, 1956.
46. Gollan, F.: Myocardial oxygen tension of the intact dog heart. Fed. Proc., 17:56, 1958.
47. Gollan, F., Blos, P., and Schuman, H.: Exclusion of heart and lungs from the circulation in the hypothermic, closed-chest dog by means of a pump oxygenator. J. Appl. Physiol., 5:180, 1952.
48. Gollan, F., Blos, P., and Schuman, H.: Studies on hypothermia by means of a pump oxygenator. Am. J. Physiol., 171:331, 1952.
49. Gollan, F., Clark, L. C., Jr., and Gupta, V. B.: Prevention of acute anoxic anoxia by means of dispersion oxygenation of blood. Am. J. M. Sc., 222:76, 1951.
50. Gollan, F., Grace, J. T., Schell, M. W., Tysinger, D. S., and Feaster, L. B.: Left heart surgery in dogs during respiratory and cardiac arrest at body temperatures below 10° C. Surgery, 38:363, 1955.
51. Gollan, F., Hamilton, E. C., and Meneely, G. R.: Consecutive survival of open-chest, hypothermic dogs after prolonged by-pass of heart and lungs by means of a pump oxygenator. Surgery, 35:88, 1954.
52. Gollan, F., Hoffman, J. E., and Jones, R. M.: Maintenance of life of dogs below 10° C. without hemoglobin. Am. J. Physiol., 179:640, 1954.
53. Gollan, F., and Kory, R. C.: Coronary flow and coronary occlusion in hypothermic dogs during by-pass of heart by means of a pump-oxygenator. Abstracts, Communications, XIX Int. Physiol. Congress, p. 398, Montreal, 1953.
54. Gollan, F., and Meneely, G. R.: Prevention of shock during prolonged periods of ventricular fibrillation by artificial circulation and oxygenation. Fed. Proc., 12:53, 1953.
55. Gollan, F., and Nelson, I. A.: Anoxic tolerance of beating and resting heart during perfusion at various temperatures. Proc. Soc. Exper. Biol. & Med., 95:485, 1957.
56. Gollan, F., Rudolph, G. G., and Olsen, N. S.: Electrolyte transfer during hypothermia and anoxia in dogs. Am. J. Physiol., 189:277, 1957.
57. Gollan, F., Tysinger, D. S., Jr., Grace, J. T., Kory, R. C., and Meneely, G. R.: Hypothermia of 1.5° C. in dogs followed by survival. Am. J. Physiol., 181:297, 1955.
58. Hegnauer, A. H., and Penrod, K. E.: Observations on the pathologic physiology in the hypothermic dogs. A. F. Technical Report NR 5912, U.S.A.A.F. Air Material Command, Wright Patterson AFB, Dayton, Ohio, pp. 108, 1950.
59. Helmsworth, J. A.: The Physiology of Induced Hypothermia. Washington, D. C.: National Academy of Sciences—National Research Council, 451:197, 1956.
60. Helmsworth, J. A., and Cole, W. R.: Comparison of two methods for induction of hypothermia in dogs. A.M.A. Arch. Surg., 73:481, 1956.
61. Herron, P. W., Jesseph, J. E., and Merendino, K. A.: An experimental study indicating the relationship between blood volume and available venous return during extracorporeal circulation. Surg. Forum, 8:410, 1958.
62. Hewitt, W. C., Jr., Brown, L. W., Jr., Eadie, A. S., Smith, W. W., and Sealy, W. C.: The ultimate *in vivo* survival of erythrocytes which have circulated through a pump oxygenator. Surg. Forum, 7:271, 1956.
63. Heymans, J. F.: Iso-hyper et hypothermisation des mammifères par calorification et frigorification du sang de la circulation carotido-jugulaire anastomosée. Arch. Int. de Pharmacodynamie et de Thérapie, 25:1, 1921.
64. Heyrovský, J.: Reduction of oxygen at the dropping mercury cathode. Časopis československého lékarnictva, 7:242, 1927.
65. Hoffa, M., and Ludwig, C.: Einige Versuche über Herzbewegung. Ztschr. f. path. Med., 9:107, 1850.
66. Horvath, S. M., and Spurr, G. B.: Effects of hypothermia on general metabolism. *In* The Physiology of Induced Hypothermia. Washington, D. C.: National Academy of Sciences—National Research Council, 451:17, 1956.
67. Issekutz, B. V.: Beiträge zur Wirkung des Insulins. Insulin - A d r e n a l i n - Antagonismus. Biochem. Ztschr., 183:283, 1927.
68. Jesseph, J. E., Herron, P. W., Winterscheid, L. C., Vetto, R. R., and Merendino, K. A.: Studies in carbohydrate metabolism of the isolated dog heart while beating and during induced arrest. *In* Extracorporeal Circulation, p. 386. Springfield, Ill.: Charles C Thomas Company, 1958.
69. Juvenelle, A., Lind, J., and Wegelius, C.: Quelques possibilités offertes par l'hypothermie générale profonde provoquée. Presse méd., 60:973-978, June 25, 1952.
70. Keller, R.: Elektrische Ladungen des gesunden und kranken Cytoplasmas. Cytologia, Fujii Jubiläumsband, 1937. pp. 35.
71. Kety, S. S., and Schmidt, C. F.: Effects of altered arterial tensions of carbon dioxide and oxygen on cerebral blood flow and cerebral oxygen consumption of normal young men. J. Clin. Invest., 27:484, 1948.
72. King, H., Su, C. S., Bounous, G., Hardin, R., Deriu, F., and Shumacker, H. G., Jr.: Hypothermia in relation to low flow rates. *In* Extracorporeal Circulation, p. 193. Springfield, Ill.: Charles C Thomas Company, 1958.
73. Kirklin, J. W., McGoon, D. C., Patrick, R. T., and Theye, R. A.: What is adequate perfusion? *In* Extracorporeal Circulation, p. 125. Springfield, Ill.: Charles C Thomas Company, 1958.
74. Knocker, Phyllis: Effects of experimental hypothermia on vital organs. Lancet, p. 837, (Oct. 22), 1955.
75. Kolff, W. J., and Berk, H. T. J.: Artificial kidney: dialyser with great area. Acta med. scandinav., 117:121, 1944.
76. Langendorff, O.: Untersuchungen am über lebenden Säugetierherzen. Arch. ges. Physiol., 66:355, 1897.
77. Larrabee, M. G., Garcia Romas, J., and Bulbring,

E.: Effects of anesthetics on oxygen consumption and on synaptic transmission in sympathetic ganglia. J. Cell. and Comp. Physiol., 40:461-494, 1952.
78. Lary, G. G.: Experimental maintenance of life by intravenous oxygen. Proc. Surg. Forum, Clinical Congress, Amer. College Surgeons, 1951, p. 30. Philadelphia, Pa.: W. B. Saunders Co., 1952.
79. Lewis, F. J., and Taufic, M.: Closure of atrial septal defects with the aid of hypothermia; experimental accomplishments and the report of one successful case. Surgery, 33:52, 1953.
80. Lillehei, C. W., DeWall, R. A., Read, R. C., Warden, H. E., and Varco, R. L.: Direct vision intracardiac surgery in man using a simple, disposable artificial oxygenator. Dis. Chest., 29:1, 1956.
81. Lillehei, C. W., Warden, H. E., DeWall, R. A., Stanley, P., and Varco, R. L.: Cardio-pulmonary by-pass in surgical treatment of congenital or acquired heart disease. A.M.A. Arch. Surg., 75:928, 1957.
82. Lillehei, C. W., Gott, V. L., Sellers, R. D., Hodges, P. C., and Varco, R. L.: Clinical experience with retrograde perfusion of the coronary sinus for direct vision aortic valve surgery with observations upon use of elective asystole or temporary coronary ischemia. *In* Extracorporeal Circulation, p. 466. Springfield, Ill.: Charles C Thomas Company, 1958.
83. Loewi, O.: Über humorale Übertragbarkeit der Herzbewegung. Pflügers ges. Physiol., 189:239, 1921.
84. Lynch, H. F., and Adolph, E. F.: Blood flow in small blood vessels during deep hypothermia. J. Appl. Physiol., 11:192, 1957.
85. Marshall, J. M., and Williams, E. M. V.: The excitation of isolated rabbit auricles by acetylcholine at low temperature. J. Physiol., 131:186, 1956.
86. Newman, M. M., Stuckey, J. D., Levowitz, B. S., Young, L. A., Dennis, C., Gorayeb, E. J., Zuhdi, M., Karlson, K. E., Adler, S., and Gliedman, M.: Complete and partial perfusion of animal and human subjects with the pump oxygenator. Surgery, 38:30, 1955.
87. Owens, G., Sawyers, J. L., and Ward, J. W.: Electroencephalographic responses in dogs during reduced blood flow. Surg. Forum, 6:506, 1955.
88. Peirce, E. C., II: The value of a low flow pump oxygenator combined with hypothermia. Trans. Am. Soc. Artificial Internal Organs, 2:28, 1956.
89. Peirce, E. C., II, and Polley, V. B.: Differential hypothermia for intracardiac surgery. A.M.A. Arch. Surg., 67:521, 1953.
90. Platner, W. S., and Hosko, M. J., Jr.: Mobility of serum magnesium in hypothermia. Am. J. Physiol., 174:273, 1953.
91. Prevost, J. L., and Batelli, F.: Sur quelques effects des décharges électriques sur le coeur des mammifères. Compt. rend. Acad. Sci., 129:1267, 1899.
92. Read, R. C., Johnson, J. A., and Kuida, H.: Systemic and coronary pressure-flow relationships during total body perfusion in the dog. Am. J. Physiol., 190:49, 1957.
93. Read, R. C., Kuida, H., and Johnson, J. A.: Effect of alterations in vasomotor tone on pressure-flow relationship in the totally perfused dog. Circulation Res., 5:676, 1957.
94. Reinberg, A.: Étude de la compensation des effects de la température et des cations sur le fonctionnement des coeurs isolés. Arch. des Sciences Physiologiques, 6:247, 1952.
95. Richards, A. N., and Drinker, C. K.: An apparatus for the perfusion of isolated organs. J. Pharm. Exp. Ther., 7:467, 1915.
96. Richardson, Lee W. H., Ashmore, J. D., and Parker, E. F.: Plasma concentration of epinephrine and arterenol during cardio-pulmonary bypass. Circulation, 16:955, 1957.
97. Ringer, S.: Further contribution regarding influence of different constituents of blood on contraction of heart. J. Physiol., 4:29, 1883.
98. Sabiston, D. C., Jr., Theilen, E. O., and Gregg, D. E.: The relationship of coronary flow and cardiac output and other parameters in hypothermia. Surgery, 38:498, 1955.
99. Salisbury, P. F., Weil, P., and State, D.: Factors influencing collateral blood flow to the dog's lung. Circ. Res., 5:303, 1957.
100. Saltzman, A., and Rosenak, S. S.: Design of a pump suitable for blood. J. Lab. and Clin. Med., 34:1561, 1949.
101. Sarajas, H. S. S., and Nilsson, T. E.: Beobachtungen über die Pathologie der experimentellen Hypothermie beim Hunde. Arch. klin. Chir., 279: 750, 1954.
102. Schröder, W. V.: Über die Bildungsstätte des Harnstoffes. Arch. f. exp. Path. m. Pharm., 15: 364, 1882.
103. Sealy, W. C.: Discussion on physiology of perfusion. *In* Extracorporeal Circulation, p. 209. Springfield, Ill.: Charles C Thomas Company, 1958.
104. Sealy, W. C., Brown, I. W., Jr., Young, W. G., Stephen, C. R., Harris, J. S., and Merrit, D.: Hypothermia, low flow extracorporeal circulation and controlled cardiac arrest for open heart surgery. Surg. Gyn. & Obst., 104:441, 1957.
105. Senning, Ä.: Ventricular fibrillation during extracorporeal circulation. Acta chir. scandinav. Suppl., 171:1, 1952.
106. Senning, Ä.: Discussion on physiology of perfusion. *In* Extracorporeal Circulation, p. 225. Springfield, Ill.: Charles C. Thomas Company, 1958.
107. Stephenson, S. E., Jr., Sawyers, J. L., Holcomb, G. L., Gollan, F., Daniel, R. A., Jr., and Scott, H. W., Jr.: Metabolic changes associated with the use of the microbubble type pump oxygenator under normothermic and hypothermic conditions. Surg. Forum, 7:257, 1956.
108. Stephenson, S. E., Jr., and Main, F. B.: Prevention of ventricular fibrillation in the normothermic and hypothermic heart: the advantages of quinidine over atrio-caval block. Surg. Forum, 7:278, 1956.
109. Swan, H.: Discussion Note. A.M.A. Arch. Surg., 71:16, 1955.
110. Swan, H.: Discussion Note. Ann. Surg., 146:560, 1957.
111. Swan, H., Zeavin, I., Holmes, J. H., and Montgomery, V.: Cessation of circulation in general hypothermia: physiologic changes and their control. Ann. Surg., 138:360, 1953.
112. Turner, J. K., and Mugler, F. R., Jr.: Prevention of hypothermically induced cardiac fibrillation by constant infusion of norepinephrine. Physiologist, 1:84, 1957.
113. Tysinger, D. S., Grace, J. T., and Gollan, F.: The electrocardiogram of dogs surviving 1.5° Centigrade. Am. Heart J., 50:816, 1955.
114. Varco, R. L., Barnard, C., DeWall, R. A., and Lillehei, C. W.: Studies on varying rates of perfusion for intracardiac operations using the Helix-reservoir oxygenator. *In* Extracorporeal Circulation, p. 164. Springfield, Ill.: Charles C Thomas Company, 1958.
115. Waud, R. A.: A mechanical heart and lung. Canad. J. Med., Sc., 30:130, 1952.
116. Wesolowski, S. A., Sauvage, L. R., and Pine, R. D.: Extracorporeal circulation: the role of the pulse in maintenance of the systemic circulation during heart-lung by-pass. Surgery, 37:663, 1955.

The Present Status of Arterial Substitutes

By Roger F. Smith, M.D., and D. Emerick Szilagyi, M.D.
Detroit, Michigan

IN the search for the best substitute for the replacement of arterial segments many problems remain unsolved. Nevertheless, the experimental findings and clinical observations during the last five years have contributed a sufficient amount of positive knowledge to enable one to form reliable judgments with respect to the value of the various types of substitutes that have seen clinical application in the recent past. As a result of the late follow-up studies for instance, serious doubt has been cast on the suitability of arterial homografts for general use in reconstructive vascular surgery. Furthermore, after many experimental trials very promising clinical results have emerged with the use of tubes woven from plastic yarn of a variety of types. It seems timely, therefore, to assess our experimental and clinical experiences and try to assign these arterial substitutes their respective roles of usefulness. We shall attempt to discuss in this fashion the merits of arterial substitutes of animal origin (venous and arterial homografts and heterografts) and of prostheses made from teflon, nylon and dacron yarn.

Venous autografts.—Our own experience with venous grafts has been too scanty to allow the formulation of judgment. The most extensive experience with this type of implant was reported by Julian,[1-4] and his results in general were satisfactory both with saphenous and femoral venous autografts for follow-up periods of up to seven years. Grafts of this type have, of course, severe limitations as to usable size and diameter which are determined by the dimensions of the only commonly available sources: the saphenous and superficial femoral veins. The most advantageous field of application of an autogenous vein graft is in the replacement of relatively short segments of peripheral arteries; need for such applications are particularly prone to arise in cases of traumatic injury. The satisfactory behavior of autogenous venous implants is, no doubt, dependent upon the acceptance of autogenous tissues by the host—a biological phenomenon of almost universal validity.

Venous homografts.—This advantage (biological acceptance) is not present when homologous vein grafts are used. The lasting qualities of such transplants are, therefore, poor. They also display other disadvantages, the most serious being the problem of the lack of availability of appropriate sizes. In general, the clinical use of homologous vein grafts has little attraction and has been largely abandoned.

Arterial heterografts.—Our own experimental observations on arterial heterografts using the McCune preparation were in accord with the majority of findings recorded in the literature.[6] About one-half of these implants remained functional for up to one year and some of these retained a fairly good degree of structural integrity for up to four years; one-third underwent severe and rapid enough degenerative changes to rupture in a few weeks; the remainder developed structural deterioration of a degree that was incompatible with continued function. The performance of these grafts is entirely too unpredictable to warrant their clinical use.

Arterial homografts.—Our observations on the biologic fate of arterial homografts (reported about two years ago) were based on the study of 268 cases of angioplastic operations in which homologous grafts had been used.[5] In 150 of these cases serial postoperative angiographic examinations were carried out and in twenty-three cases in which late failure occurred or in which the patient died the grafts were recovered and investigated histologically. Approximately one-fourth of the aortic bifurcation grafts showed significant changes in the angiogram, and in the femoral grafts intrinsic defects were observed in about one-half the cases. These changes consisted of intimal ulcerations,

From the Department of Surgery, Henry Ford Hospital, Detroit, Michigan.

Presented at the sixth annual meeting of the Michigan Chapter of the American College of Surgeons, Detroit, Michigan, March 18, 1958.

dilatation and tortuosity of the wall, and rarely in aneurysm formation. Although the incidence of changes was highest in the femoral homografts, the most disturbing findings were the three



Fig. 1. An elastic Dacron prothesis following six months of dog implantation in the McCune preparation. Arteriogenesis is satisfactory with a well formed pseudointima seen lining the opened graft.

aneurysms that developed in the series of fifty-five aortic grafts. In one case, because of the progressive enlargement, it was necessary to resect the aneurysm and replace it with a plastic prosthesis.

The histologic findings afforded a logical explanation for the deterioration of the grafts seen in the angiograms. From these findings it became evident that, contrary to some widely held beliefs, an arterial homograft is not actively accepted and incorporated by the host tissues. Reinforcement of the homologous implants by host connective tissue is at best scanty and, in fact, the implant occasionally is actively rejected by the host. This host-graft reaction is undoubtedly governed by immunologic factors. The implanted graft in most instances must maintain its structural integrity through the mechanical strength of its histological elements. When these wear out, as they inevitably do in time, the graft wall weakens, becomes dilated and eventually is occluded by thrombosis or, rarely, ruptures. The histologic element essential for mechanical integrity is the elastic component in the arterial wall. This is why aortic grafts, very rich in the elastic element, have a much longer useful life.

Thus, in spite of the excellence of their technical qualities and the brilliant early results usually encountered in their use, both the human aorta and the human femoral artery suffer from serious deficiencies when used as homologous arterial substitutes. The femoral artery in particular seems intrinsically poorly suited to serve in this role.

Plastic substitutes.—Even before our apprehension concerning the ultimate fate of homologous arterial implants was found to be justified, we undertook a series of experimental studies on the replacement of long and narrow arterial segments with seamless plastic tubes.* The experimental preparation used in this study was similar to that described by McCune which consists of an exclusion of the thoraco-abdominal aorta in the dog utilizing an end-to-end anastomosis with the proximal thoracic aorta and a distal end-to-side anastomosis just above the abdominal aortic trifurcation. This preparation enables one to study various types of arterial substitutes in lengths and diameters comparable to those used for angioplastic procedures in diseased human femoral arteries. These experimental conditions are far more realistic than those in short-segment aortic replacements that have been commonly used.

In this manner seamless tubes woven from nylon, orlon and teflon were tested.[6] During observation periods up to two years these implants gave a good rate of patency and showed satisfactory arteriogenesis, that is, formation of pseudointima and ingrowth of host connective tissue into the fabric to create a new connective tissue tube. There was, however, a disturbing observation made in all these inelastic prostheses, namely, that kinking occurred whenever the plastic tube was bent, and this was followed by thrombosis. This deficiency has

*Support for this research was in part by a grant from the Michigan Heart Association.

rendered all such inelastic plastic prostheses unsuitable for use except in the replacement of very short straight segments or bifurcations with very short limbs.

tubes unsuitable as arterial synthetic devices except perhaps in the femoral region.

About fourteen months ago it became feasible to apply the "Helanca" process to Dacron† fibers, and

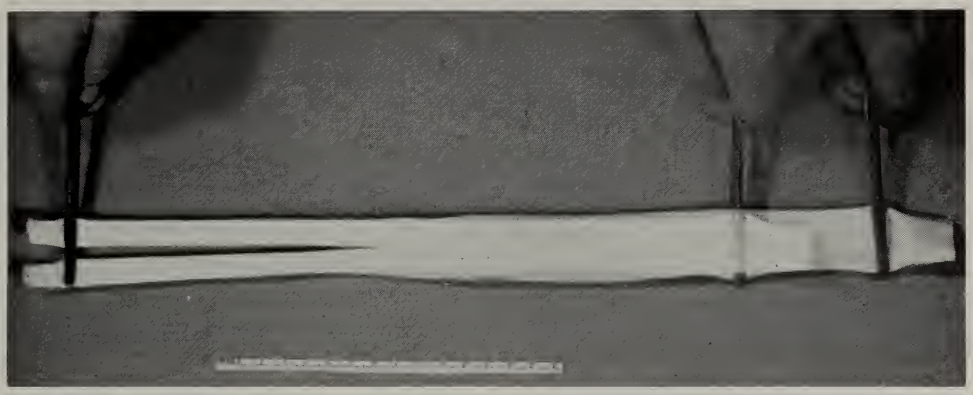


Fig. 2. A double exposure photograph of an elastic Dacron bifurcation prosthesis showing the range of stretch of the fabric. (The ruler illustrated measures 15½ cm.)

We attempted to overcome the disadvantages of the rigidity of plastic prostheses by constructing tubes from specially treated yarn. Two years ago, when this phase of the work began, the only plastic yarn with elastic qualities was one made of nylon and treated with the "Helanca" process.[7] In this patented process the nylon fiber is twisted into a tight spiral and then this twist is heat-set at 270° F. Two plies with opposite twists are combined to make the final yarn. When unstretched, the yarn is curly or kinky but when under tension, the twisted fibers uncurl and elongate. This imparts to the yarn a quality of elasticity. The fabric of the prosthesis has a simple taffeta weave. The warp, which is in the length-wise direction of the tube, contains elastic yarn. The woof, which lies in the transverse direction of the tube, contains untreated or plain yarn. The mesh size is about 0.1 mm. or 100 microns. Such an elastic prosthesis has readily overcome the problem of kinking. In spite of being implanted in a markedly tortuous course, these tubes remained open and functioned as satisfactorily as the straight tubes. Arteriogenesis was very satisfactory; however, tensile strength determinations of the nylon implant revealed a significant and a progressive decrease. In two months 80 per cent of the original tensile strength had been lost. This deterioration of nylon implants is the result of their tissue reactivity which in turn is due to the water-absorbent property of the nylon. This lack of durability makes nylon

TABLE I. RESULTS OF ELASTIC DACRON GRAFTING PROCEDURES
May 1957—April 1958

	Immediate		Late	
	Open	Closed	Open	Closed
Aorto-iliac	30 91%	3 9%	30 91%	3 9%
Femoro-popliteal	23 82%	5 18%	20 72%	8 28%
Total	53 87%	8 13%	50 82%	11 18%

seamless straight and bifurcation tubes were constructed from yarn made up of fibers so treated. In a series of dogs, in preparations identical with those described for nylon prostheses, the elastic Dacron tubes proved to be equally satisfactory from the points of view of patency rates and arteriogenesis; but, in marked contrast, they showed no loss of tensile strength up to twelve months following implantation.

The results of these animal experiments justified clinical trial. During the past twelve months we have used elastic Dacron prostheses as aorto-iliac replacements, as unilateral and bilateral aorto-femoral bypasses, and as femoro-femoral and femoro-popliteal bypasses. Most of the operations in the limb were long bypasses from common femoral artery to distal popliteal artery varying in

†"Dacron" is the trade name of E. I. du Pont de Nemours and Co., Inc., for their polyester fiber.

length from 31 cm. to 57 cm. and averaging 46 cm. The results in sixty-one cases using various types of elastic Dacron prostheses is shown in Table I. The late cumulative patency rate of 82 per cent is only slightly inferior to that we obtained with homografts during a comparable follow-up period. It is hoped, on the basis of experimental and theoretical considerations, that the later results will be superior to those of homografts.

We have in general been well pleased with this prosthesis; however, it does have some disadvantages. The Dacron fibers are prone to slip, thus creating a small defect in the prosthesis which does not weaken it but may cause troublesome bleeding at the time of insertion. This difficulty may be largely overcome by gaining experience in the handling of such a prosthesis. The technique required is considerably more demanding than for suturing a homograft. It would be highly advisable for a surgeon planning to use such a prosthesis in a patient to familiarize himself with the technical problems in the animal laboratory.

Our criteria for the selection of suitable arterial substitutes for clinical use (based upon the experimental observations and clinical results briefly described above) are summarized in Table II.

TABLE II. PROPERTIES OF ARTERIAL SUBSTITUTES STUDIED

	Tissue Acceptance	Ease of Handling	Durability	Elasticity	Availability	Recommended Use
Aorto-iliac homograft	Fair	Excellent	Fair	Excellent	Good	When anastomosis to visceral branches is needed
Femoral homograft	Fair-Poor	Excellent	Poor	Excellent	Poor	Technical difficulty (rare)
Teflon (non-elastic)	Excellent	Fair	Excellent	Poor	Excellent	A-I replacement with short limbs
Dacron (elastic)	Excellent	Good	Excellent	Good	Excellent	First choice for A-I and femoral replacement
Nylon (elastic)	Good	Good	Fair	Good	Excellent	Second choice for femoral replacement

Summary and Conclusions

As yet no truly ideal arterial substitute has been developed. Further investigation and clinical trial will be necessary before this goal is achieved. Autogenous vein grafts are readily available, especially in emergency circumstances, but are limited as to their dimensions. Experimentally, heterografts have been shown to be completely unreliable. Both venous and arterial homografts, because of their lack of durability, should be limited to the occasional instance where the technical difficulties in the case require their superior ability to remain patent under adverse conditions or in older individuals where the need for long-range function is not great. All the rigid synthetic plastic prostheses suffer from the disadvantage of kinking when bent, making their clinical usefulness quite limited. Elastic nylon tubes satisfactorily overcome the problem of kinking but show progressive deterioration of tensile strength which drastically limits their clinical application. In almost all instances we have found an elastic Dacron prosthesis to function very satisfactorily without loss of tensile strength, and we feel that this is the most suitable type of arterial substitute at the present time.

References

1. Dye, W. S., Grove, W. J., Olivin, J. H., and Julian, O. C.: Two-to-four-year behavior of vein grafts in the lower extremities. A.M.A. Arch. Surg., 72:64, 1956.
2. Julian, O. C.: Personal Communication.
3. Julian, O. C., Dye, W. S., Grove, W. J., and Olivin, J. H.: Direct surgery in segmental arteriosclerosis. J. Bone and Joint Surg., 35-A:905, 1953.
4. Julian, O. C., Dye, W. S., Olivin, J. H., and Jordan, P. H.: Direct surgery of arteriosclerosis. Ann. Surg., 136:459, 1952.
5. Szilagyi, D. E., McDonald, R. T., Smith, R. F., and Whitcomb, J. G.: Biologic fate of human arterial homografts. A.M.A. Arch. Surg., 75:506, 1957.
6. Szilagyi, D. E., Shonnard, C. P., Lopez, y Lopez, J., and Smyth, N. P. D.: The replacement of long and narrow arterial segments. Surg., 40:1043, 1956.
7. Szilagyi, D. E., Whitcomb, J. G., and Shonnard, C. P.: Replacement of long and narrow arterial segments. II Experimental studies with an elastic ("Helanca") seamless woven nylon prothesis. A.M.A. Arch. Surg., 74:944, 1957.

Aneurysms of the Popliteal Space

By James E. Cole, M.D., F.A.C.S.
Detroit, Michigan

THE scarcity of reported material in the literature dealing with popliteal aneurysm should not embrace the thought that this lesion is of little importance and may not be on the increase. The true non-military and non-traumatic popliteal aneurysm is chiefly of atherosclerotic origin and with the ever-increasing population in the older age group we must be on the alert for this vascular condition, which is considered by many as second only to aortic aneurysms in frequency[3] and may be found in younger individuals.[3] Certainly this condition should become easier to diagnose and to cure by direct surgical measures. Of the number of aneurysms reported in the literature well over 25 per cent are of the popliteal artery.

The two most common causes of popliteal aneurysms are atheromatous blood vessel changes and trauma. The latter are more common among military combat personnel owing to gun shot or penetrating wounds in the popliteal space which many times result in the formation of a false aneurysm; and these ordinarily have a higher morbidity than surgically-treated, elective cases because of extensive local tissue damage, hemorrhage and destruction of collateral blood vessels. Automobile accidents, fractures and bony growths[9] may be forerunners of aneurysms.

False aneurysms[1] or arteriovenous fistulas with aneurysmal formation are possibilities. Holman[4] demonstrated mechanically that a pulsitile jet of fluid through a narrowed area could produce a dilatation distal to the constriction by tissue fatigue. Micotic causes are given little credit for this type of aneurysm. Syphilis was responsible for a larger number of the early reported cases. This is borne out in cases reported from The Massachusetts' General Hospital by Robert L. Linton between the years 1908 to 1947: 1908 to 1917—four patients all luetic, 1918 to 1927—four patients, with one being arteriosclerotic and three luetic, 1928 to 1937—nine patients with four luetic and five arteriosclerotic, 1938 to 1947—twenty-five patients all with arteriosclerotic changes.

A break in the wall of an atheromatous vessel with dilatation of the remaining intact layer is the main etiologic factor in the production of most popliteal aneurysms. Perhaps the wide range and frequency of motion at the knee joint accounts for many of the fractures in heavily calcified popliteal arteries. An estimate that 45 per cent of the patients will have bilateral involvement has been given by the Mayo Clinic[2] study of 100 popliteal aneurysms in that center from 1913 to 1951. These usually are spontaneous in beginning and may be rapid or slow in development.

Diagnosis may be missed by inadequate examination of the popliteal space. Also the area is difficult for the patient to see and may be asymptomatic for a long time. Pain from perivascular nerve pressure or a swelling with or without pulsations may be noted by the patient. In the absence of pulsations or bruit, the swelling may be mistaken for a Baker's cyst or a similar popliteal condition. X-ray[10] is valuable since frequently it will show the calcified outline of the aneurysmal sacculation; however, many are not diagnosed until a serious complication has developed.

The behavior pattern of this lesion is most unpredictable. Lord[8] correctly likens it to a vixen because of the slyness in its apparent benignity. It may develop suddenly or slowly; increase in the amount of dilatation can be extremely rapid or require several years for advanced arterial wall degenerative changes to cause weakness. It may be painful or completely asymptomatic. Thrombosis of the aneurysm, emboli to distal vessels, obstruction to collateral vessels or rupture of the sac may result in loss of foot or leg from gangrene and death of the individual may follow closely any of the above complications.

All popliteal aneurysms are sinister harbingers of sudden catastrophy, and each case deserves individual consideration. Any delay in treatment

Presented at the annual meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

may result in tragedy. With few exceptions of extremely poor risk patients all uncomplicated cases should be treated surgically as soon as preparations can be arranged, and all complicated cases should be considered emergencies. Conservative treatment results in a high percentage of complications and loss of limb and life.

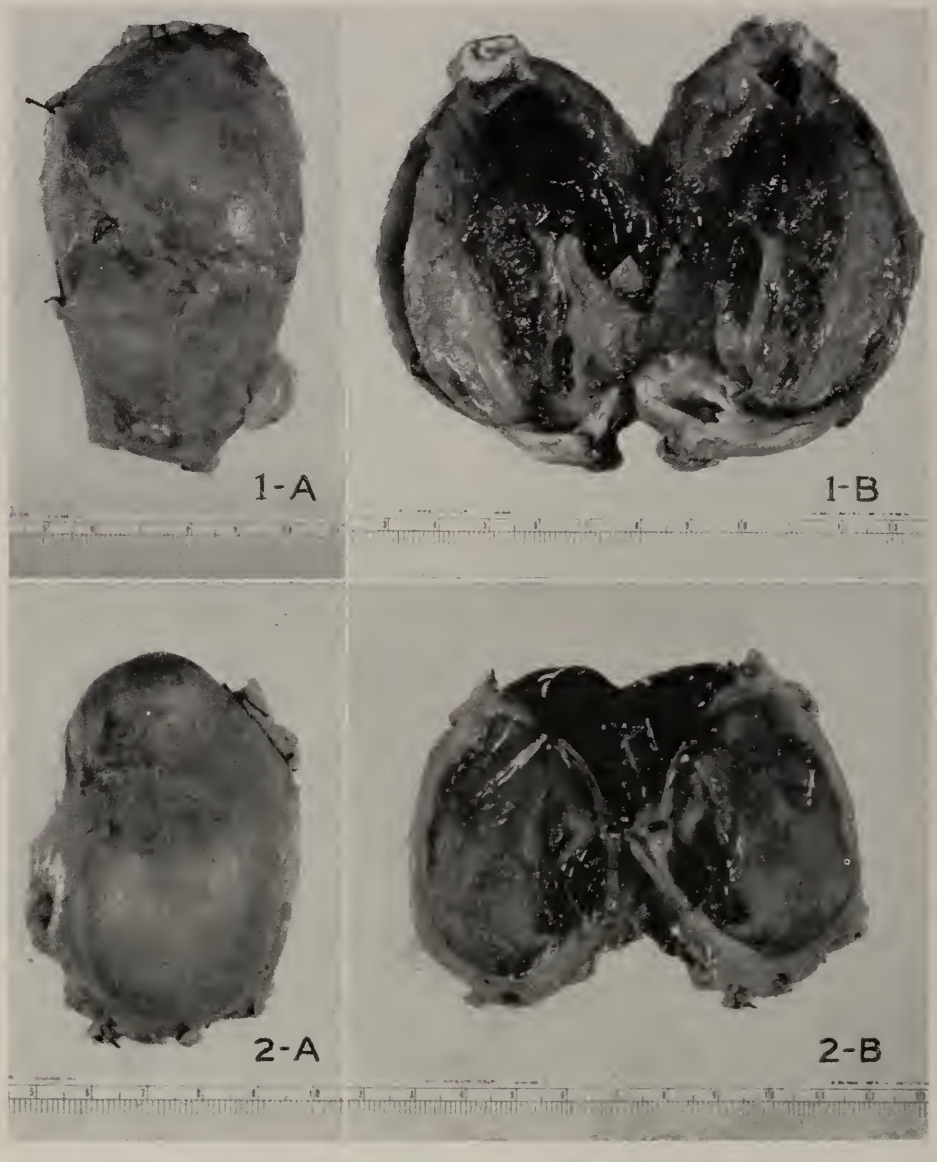


Fig. 1. (a) Intact aneurysm from left leg. (b) Aneurysm from left leg opened.
Fig. 2. (a) Intact aneurysm from right leg. (b) Aneurysm from right leg opened.

Of seventy-three cases treated non-surgically at the Mayo Clinic,[2] thirty-three had subsequent complications and sixteen ultimately required amputation, while twenty-four receiving primary surgical treatment suffered no further complications. Surgical approach for the cure of popliteal aneurysm dates back to the third and fourth century when Antyllus and Treves developed a method of ligation above and below the sac, then evacuating the contents. Philagrius of Macedon was first to extirpate the aneurysm. Guillemeau advised filling the sac with lint after ligation above and below. Anel, in the sixteenth century, ligated the sac and left it unopened. There was very little change in surgical treatment until in the twentieth century, Matas developed his method of endoaneurysmorrhaphy which is still considered a satisfactory procedure. All of the above methods carried a fairly high percentage of distal gangrene. In 1931, Mulvihill and Harvey developed sympathetic ganglionectomy with beneficial effect to the extremity after acute arterial occlusion and Bird in 1935 combined this procedure with endoaneurys-

morrhaphy in a case of popliteal aneurysm with added benefit. This combination has since been used frequently by others. Linton[7] reported fourteen arteriosclerotic cases treated with preliminary sympathectomy then extirpation with excellent results.

In the individual who has had time to develop improved collateral circulation (and many have), simple above and below ligation and extirpation may give satisfactory results. Lumbar[5] sympathectomy should enhance the circulation distally and, where conditions permit, the continuity of circulation to the lower limb can be preserved or restored by interposing one of the various types of grafts[6] between the arterial segments. These usually give excellent results when properly inserted. Choice of surgical approach will be influenced by the condition and age of the patient, adequacy of collateral channels, degree of vascular degenerative change present locally and distally and the tissue vitality of the involved extremity. A case of bilateral popliteal aneurysm treated by above and below ligation and extirpation without benefit of graft or sympathectomy is reported as follows.

Report of Case

A. W., a white man, aged seventy-two, a carpenter by trade, was admitted to Highland Park General Hospital, June 22, 1956, with the following history. He had first noticed a swelling in the left popliteal space three weeks before admission and it had doubled in size during the previous two weeks. He also noticed that a similar but smaller swelling had presented in the right popliteal space within the immediate past ten days. On examination bilateral pulsating, lobular, painless enlargements without bruit were noted. There were good distal pulsations with normal color and temperature of the feet. Moderate edema and large varicosities were present bilaterally. He had been in the hospital two months earlier for surgical repair of a large hydrocele and hernia without recognition of the aneurysms. X-ray revealed extensive calcification of the pelvic vessels, femoral arteries and their branches and the break in the atheromatous wall of the aneurysmal sacs.

Laboratory data and physical findings were within satisfactory limits (both two months previous and at this admission). Arrangements for immediate surgery were quickly set up and the left aneurysm was removed within five hours after admission and the right one, thirteen days later.

Temporary compression of the artery during dissection of the sac and ligation of its tributaries supplied a valuable and fairly reliable test for unfavorable tissue changes which might follow primary ligation and extirpation. The pedal pulsations, while decreased in volume, were still perceptible and the feet (though somewhat cooler and paler) appeared to have sufficient viability. Therefore, the procedure of ligation and extirpation of the aneurysms with preservation of the popliteal veins was carried out. Figures 1 and 2 show the size of the resected aneurysms. Continuous caudal drip of 1 per cent Xylocaine at the rate of 15 cc. every two hours was used for five days following surgery.

Postoperative observations were as follows: feet cooler and paler with some increase in lower leg edema, numbness and tingling of the toes, crampy pains in calf muscles on walking down the hall, moderate rubera of feet when dependent and a traumatic peroneal nerve left foot drop, which completely healed.

Since discharge his improvement has been sufficiently progressive that he returned to light carpentry work and by not hurrying can walk several blocks without halting claudication pain. He is satisfied and refuses further surgery.

The addition of either a graft or lumbar sympathectomy or both at the time of surgery would perhaps be considered the procedure of choice by some; however, it is my opinion that this elderly man has avoided an almost sure catastrophic complication should conservative treatment have been pursued. Surely, many more popliteal aneurysms will be found if this area, in the examination of the older patients, is given special consideration.

Summary

1. With increasing numbers in the older age group the arteriosclerotic type of popliteal aneurysm will be more prevalent.

2. A more careful physical examination is imperative.

3. Conservative treatment will have a high percentage of serious complications.

4. Without surgical management there is serious threat to the extremity and life of the patient.

5. The popliteal space is easily accessable to surgical approach.

6. Grafts and sympathectomy give added benefits and should be considered in all cases.

References

1. Cohn, Roy, and Mathewson, C.: Conservative operation in the treatment of false aneurysm of the popliteal artery. West. J. Surg., 61:74-78, 1953.
2. Gifford, Ray W., Jr., Hines, Edgar A., Jr., and Jones, Joseph M.: An analysis and follow-up study of one hundred popliteal Aneurysms. Surgery, 33:-284-293 (Jan.-June) 1953.
3. Gifford, R. W., Jr., Parkin, T. W. and James, J. M.; Arteriosclerotic popliteal aneurysm in a man thirty-five years old with report of a case. Circulation, 9:363-366. (March) 1954.
4. Holman, Emil: "On Circumscribed Dilatation of an Artery immediately distal to a partially Occluding Band": Poststenotic Dilatation. Surgery, 36:3-24 (July-Dec.) 1954.

(Continued on Page 98)

Bilateral Internal Mammary Artery Ligation in Coronary Artery Disease

Clinical Report of Thirty Cases

By Aran S. Johnson, M.D., F.A.C.S.,
and Robert Griffin, M.D.
Detroit, Michigan

THE purpose of this paper is to discuss the basic physiology and anatomy and to critically evaluate the clinical results of bilateral internal mammary artery ligation and division.

Several years ago a group of three Italian doctors[5,6] developed a new and simple method of treating coronary insufficiency by ligating the internal mammary arteries. Beneficial results from this operation were reported as high as 80 per cent.

Glover,[1] in November, 1957, was the first in this country to report on a series of seventy-seven patients treated with bilateral ligation and division. Postoperatively, 68 to 70 per cent of his patients were either free of angina or greatly improved. No significant change occurred in the remaining 30 per cent. Of the seventy-seven patients, five died one hour to fifteen days postoperatively.

Ripstein and his group[2] have operated upon a number of patients with coronary insufficiency and angina. However, their operation consisted of bilateral incisions over the second interspace without ligation and division of the internal mammary arteries. In other words a "sham operation" was performed. Postoperatively, 50 per cent of these patients were free of pain and greatly improved. From the respective studies of Glover, Ripstein and others, the psychic element involved in coronary artery disease as far as symptomatology is concerned appears to have a definite importance in the reported results of the operation. The physiologic and anatomic explanation of the operation, according to Griffin and associates,[3] is to decrease the volume flow of blood to the internal mammary vascular bed, thus increasing the profusion rate through the minute collateral circulation at the base of the heart. However, it must be noted that the results were recorded in the acute stages of the experiment. Further studies in the long-term chronically ligated animals are necessary in order to accurately determine the stability of the postligation increase in the profusion rate.

A word or two about the gross anatomical types of coronary artery disease. Eighty per cent of the hearts examined at necropsy of patients with a known history of coronary artery disease with angina have the diffuse stenosing type of occlusive disease. Twelve per cent have the multiple segmental occlusive type with 50 per cent of these patients having had a previous history of angina. The remaining 8 per cent have the single solitary type of segmental occlusion without a history of angina.

The operation described by the Italian investigators and by Glover in this country is a simple surgical procedure. The simplicity and innocuous nature of this operation has greatly appealed to our non-surgical colleagues, the internist and to the patient.

The majority of the cases have been done under local anesthesia. Two small vertical incisions, 5 cm. in length, are made 2 cm. from the lateral borders of the sternum over the second interspace. The pectoralis muscles are split and retracted. The intercostal muscles are incised midway between and parallel to the ribs. The internal mammary arteries are then isolated, ligated and divided between the ligatures.

In our series of thirty cases, three of the patients were operated upon under general anesthesia. The remaining twenty-seven patients were treated under local anesthesia. Our patients were divided into two groups:

Presented at the annual meeting of the Michigan Chapter of the American College of Surgery, March 18, 1958.

Dr. Johnson, Cardiovascular Surgeon, Bon Secours Hospital, Harper Hospital and Highland Park General Hospital; Dr. Griffin is Chief, Department of Medicine and Cardiology, Bon Secours Hospital, Grosse Pointe, Michigan.

I. The acute post-myocardial infarction group.

II. The patients with an established diagnosis of coronary artery disease with angina.

Results in Group I.—Five patients, between the ages of thirty and fifty-five, were operated upon from one to fifteen days after their acute myocardial infarction:

1. No postoperative deaths.

2. Early stabalization of the electrocardiograms in the five patients.

3. One patient in this group had had his third acute infarction with persistent anginal pain. On the sixth post-ligation day he was free of the anginal attacks and has remained free of pain for nine months.

Results in Group II.—Twenty-five patients with positive electrocardiographic evidence of coronary artery disease with angina, ages forty-two to sixty-eight:

Ten of these twenty-five patients are free of angina, one to eight months post-ligation. Among these there were:

1. No post-ligation deaths.

2. No electrocardiographic evidence of improvement.

Fifteen of the twenty-five patients obtained no relief from their symptoms, post-ligation:

1. Two of the patients have since expired: one died two months post-ligation, at age sixty-eight. The second patient died six months post-ligation, at age forty-eight.

2. At necropsy hearts of both the aforementioned patients revealed extensive coronary stenosis with multiple areas of segmental occlusion and diffuse myocardial fibrosis.

Summary and Conclusion

The results obtained in the acute postinfarction group of patients demonstrate electrocardiographic and clinical evidence of improvement. We believe that the operation might be valuable in the early treatment of patients with acute extensive postinfarction states. However, a large number of cases having been operated upon should be evaluated critically in order to substantiate our findings.

The results in patients with the diffuse stenosing type of coronary artery disease are less conclusive. There has been no clinical evidence of physiologic improvement in any of the patients, although 40 per cent are reported free of pain. We must assume at the present time that the procedure is more a surgical method of psychotherapy for those patients having developed a cardiac neurosis.

Addendum

Since reporting this clinical study, seven of the fifteen patients in Group II who obtained no relief for their angina and dyspnea have undergone operation again. A complete revascularization operation[7] was done. Four of these patients are completely free of their angina and associated dyspnea five to seven months postsurgically. Three patients continue to have occasional pain which is less intense and not associated with shortness of breath. They state their anginal attacks have been less frequent since the last operation.

Acknowledgment

The authors wish to thank the following for the use of their patients in this report: Doctors V. Adams, V. Hunt, L. Heavner, R. Fisher, G. DeSmyter, R. Gerisch, J. Blain, J. Kennary, and N. Diebel.

References

1. R. P. Glover: A new surgical approach to the problem of myocardial revascularization in coronary artery disease. J. Arkansas M. Soc., 54:223-234 (Nov.) 1957.
2. C. B. Ripstein: Personal communication.
3. Griffin, J. C., Jr., Hardy, J. D., and Turner, M. D.: Does internal mammary ligation increase arterial flow to the myocardium? Surg. Forum, 8:325, 1957.
4. C. S. Beck: Personal communication.
5. Battezzati, M., Tagliaferro, A., and DeMarchi, G.: The ligation of the two internal mammary arteries in disturbances of the vascularity of the myocardium. Minerva Medica, Turin, Italy (Oct. 31) 1955.
6. DeMarchi, G., Battezzati, M., and Tagliaferro, A.: Ligation of the internal mammary arteries and its effect on myocardial insufficiency. Minerva Medica, Turin, Italy, 47:1184-1195, 1956.
7. Johnson, A. S., and Griffin, R.: The Johnson operation for acquired and congenital coronary insufficiency. J. Michigan M. Soc., 57:384 (March) 1958.

816 David Whitney Bldg. (Dr. Johnson)
Detroit 26, Michigan

Investigation and Treatment of Infertility

Clyde L. Randall, M.D., and
Paul K. Birtch, M.D.
Buffalo, New York

INFERTILITY, as we all know, is not an infrequent complaint. In both the investigative and treatment phases of this problem, the doctor consulted must be thinking in terms of the anatomy, the physiology and the psychology involved. One factor should not be investigated while neglecting the others which may be involved.

Reynolds[17] suggests that the primary function of the uterus is to accommodate the products of conception for a period of time characteristic of the species, then to deliver—through the process of parturition—an individual capable of independent existence. It seems likely that basic instincts and thoughtfully developed desire will usually combine to assure that most women will want children.

Conception often proves difficult when the desire to have a child seems most intense. To make matters worse, abortion is not unlikely when conception has proven most difficult. Failure to conceive, while at first only disturbing, may become frustrating and eventually an obsession. Prospective parents may exhibit a noticeable progression of tension if pregnancies result in abortion or loss of a child in late pregnancy when success finally seems assured.

Data[16] from our own practice certainly reaffirm the prognostic value of a poor obstetrical history. Hughes,[9] Schoeneck,[20] and their associates, as well as the Smiths,[22-24] Javert[11] and others, have emphasized the continuity of the etiologic factors evident in infertility, abortion and the complications of late pregnancy—referable to an inadequate placenta. Mere ability to conceive is, therefore, no assurance of parenthood, for human pregnancy not infrequently fails to produce a healthy child and fetal loss remains a major problem.

The means and ability to investigate properly the couple unable, apparently, to achieve a successful pregnancy, are now widely available. We can no longer justify a fatalistic attitude in regard to infertility, the occurrence of abortion or of stillbirths.

When infertility, abortion or any type of fetal loss suggest that we should recognize the couple's problem as a possibly serious one, there is need to institute measures to improve the probability that pregnancy, when next achieved, will be maintained to successful completion at term. In our own practice, we have been impressed by the *infrequency* of abortion when conception occurs following institution of the preconceptional measures consistently recommended by Hughes for many years.

What then, are the measures we should recommend when infertility appears to be the problem? We believe the measures of established value are so well known to all physicians that a recommended plan of investigation need not be outlined at this time. It would be well, however, when the wife comes to us expecting investigation (and probably treatment) for infertility, to look upon both would-be parents as a couple with a problem which may have multiple causes rather than a single cause.

deWatteville[5] believes that in all reports evaluating the possible causes of sterility, we will find a sizable number of cases in which the individuals are without any morphologic pathology to explain their difficulty. It is admitted, however, that at present we still do not know all the etiologic factors preventing conception. Lack of vitamins or hormones may, for example, be such a factor—even when there is no clinical evidence of an actual deficiency as measured by our present methods. Thyroid extract, for instance, has many proponents and the apparent effectiveness of thyroid can at times hardly be denied.

The general health of both the husband and wife must be evaluated and, whenever indicated, measures to improve any recognized deficiency should be advised. The importance of such empirically-prescribed measures as dietary changes, the administration of vitamins or thyroid extract

Presented to the Michigan Clinical Institute, Detroit, Michigan, March 21, 1958.

have, of course, been discredited by more recent scientific investigations. In the management of the patient, however, the importance of such measures should not be forgotten. To the discouraged, apparently-infertile couple, whatever treatment is recommended by their doctor is likely to contribute to the solution of their problem.

Rogers[19] has recently reminded us that a significant number of women presenting themselves with the problem of infertility may conceive rather promptly after a single interview or examination, prior to the institution of any therapeutic measures. He has also emphasized the rather common experience of an apparently-sterile couple accomplishing a pregnancy soon after completion of the recommended investigation, presumably as a result of the release of an appreciable degree of tension. In some patients, emotional problems may be recognized readily while in others, though not apparent, tensions are none-the-less real. Repeatedly it seems that, having gained insight into their emotional problems after release of fears and tension and having gained assurance of the fact that their situation is not unique, couples do achieve pregnancies that at the present cannot be credited to any other therapy than the psychological measures employed in an effort to understand their problem.

Frustration and anxiety must, at least to some extent, account for the decision of all infertile couples to seek medical advice. The importance of psychiatry as a part of an infertility study is widely recognized. Psychiatric consultants are available in all clinics and centers offering facilities for adequate study of a barren marriage. Too often, however, the psychiatrist is called upon only after the apparent elimination of all the anatomic, physiologic and endocrinologic causes that were thought to be demonstrable. Such use of psychiatry as a last resort has seemed wrong to Sturgis.[28-29] Rather than referring for psychiatric help only those couples in whom emotional factors seemed likely because all else seemed negative, he has made an effort to include a routine psychiatric screening interview of each husband and wife at an early phase of the investigation of each couple. Sturgis reports that such psychiatric evaluation was satisfactorily accomplished in twenty-five of forty unselected new cases. He was pleased to find that only six of the forty couples so advised were unwilling to go through with the interviews after appointments had been made. The frequency with which unrealistic fears (and occasionally perfectly rational anxieties) were encountered by the psychiatrist has led Sturgis to conclude that much may be gained by continuing this procedure as an important part of the routine investigation to be recommended for all new cases.

deWatteville emphasized the fact that in our country, unfortunately, the psychiatrist is still considered by the major part of the population as a man exclusively treating mental patients. He believes that in many instances, when recommending a psychiatrist, the gynecologist may hear evidence of a state of mind once expressed by one of deWatteville's own patients, who, when psychiatric consultation was suggested—quickly replied, "But, doctor, what I want is not a psychiatrist, but a baby!"

Marsh and Vollmar[15] believe that the general physician may at times be a far better psychotherapist than he believes, and that by no means should all suspected cases of psychogenic sterility be immediately referred to the psychiatrist. Psychotherapy functions best in that long understanding relationship often evident between family physician and one of his "old" patients. Such understanding provides a most desirable type of background for the discussion of personal problems. Having experienced much of life and having gained rare insight into human attitudes, the family physician has for years been building the confidence of his patients even while carrying out the simplest of investigations and treatments. Often he is the one able to help a woman regain her self confidence, armed with which she is likely to show an improved attitude toward those around her. Stone and Ward[26] have emphasized the effectiveness of this informal homely type of psychotherapy in the management of infertility problems.

There is no doubt but that many women become pregnant in spite of a considerable degree of frigidity. According to deWatteville, however, the importance of orgasm as a means of promoting sperm migration into the uterus should not be disregarded. He believes that psychological tensions are indeed capable of causing functional disorders of the genital organs in both men and women, and that such may lead to sterility.

Marsh and Vollmar have observed, within the same disturbed patient, both psychiatric disorders and endometrial hyperplasia resulting from anovulatory cycles. In some mentally disturbed women, the same observers noted engorgement of

pelvic veins to a degree thought likely to be able to account for such degrees of ovarian failure. Tubal spasm may also be regarded as but another evidence of the importance of psychosomatic factors. Through his culdoscope, Decker[4] has observed contractions of the fibromuscular ligament of the ovary, and has wondered whether alteration in the contractual function of these ligaments may not be one of the ways by which psychogenic factors operate to delay conception.

Heiman[8] considers one-child sterility to be a special type of psychological conflict, in which the first child represents a re-establishment of the mother-child relationship the way it existed for the patient as a young child. As a result, the wife subconsciously resists disruption of this relationship by a third party, that is, an additional child. Another interesting and not exceptional observation concerns the frequency of pregnancy occurring after adoption of a child. The generally acceptable explanation requires belief that the degree of emotional tension persisting throughout the period of sterility has been relieved. The care of the adopted child proves time-consuming and a distraction in which a subconscious dread of the responsibilities involved in maternity are likely to disappear.

We must not forget the evidence suggesting that psychologic factors also play an important role in the problem of repeated abortion. Mann[14] has reported cases of habitual abortion for which only psychiatric measures were employed as treatment during the patient's next pregnancy. Before treatment, 93.3 per cent of the pregnancies in this group had ended in abortion whereas, after psychotherapy, only 16.6 per cent of the pregnancies conceived by these same couples terminated in abortion.

All would agree, however, that there are reasons other than psychological ones why the fertilized ovum may fail to become implanted and fail to remain safely attached within the uterus. Unfortunately, we lack reliable data suggesting the relative frequency of the many possible causes of fetal loss. Corner[2] believes that irritability of the uterus, at least in some cases caused by a relative deficiency of progesterone, is a pathogenic factor in a good many spontaneous abortions.

For many years American embryologists and practitioners alike accepted Mall's dictum[12,13] that all abnormalities of amnion and fetal development were due to faulty implantation resulting from diseases of the uterine lining. Corner's[3] investigations, beginning in the early 1920's, convinced him of the fact that much prenatal wastage was the result of genetic causes. Streeter's[27] influence seemed to swing the pendulum of thought almost all the way —to a wholly genetic explanation of human pregnancy wastage. In the last decade, however, much experimental work has seemed to warrant belief that constitutionally-sound embryos may perish or suffer irreparable damage because of nutritional defects inherent in the maternal environment.

The consequences of inadequate vascularity (and, therefore, nutritional deficiencies) within the endometrium have been thoroughly studied by Hughes, Lloyd[10] and their associates. These investigations also have emphasized the effectiveness of preconceptional treatment if suitable measures are employed long enough to assure adequacy of the progestational endometrium in the next pregnancy. Hughes' observations might well remind us that much of the current emphasis on the psychological aspects of infertility must not blind us to the importance of the most frequent causes of sterility. Recent evaluations of infertility studies suggest that nearly three-fourths of all cases are due, at least in part, to some anatomic or physiologic variation from the normal.

Anatomic variations (congenital abnormalities) might well be considered first. In this regard, abnormalities of both the fundus and the cervix should be considered. The varied degrees of reduplication or bifurcation of the fundus not infrequently seem to account for abnormal location and inadequacies of the placenta. More recently, inadequacy or incompetence of the inner os of the cervix has seemed to warrant an increasing amount of attention. This defect can apparently be due either to post-traumatic or congenital weakness of the sphincter-like action of the inner os—with herniation and rupture of the membranes accounting for late abortion or premature labor.

Recognition of congenital abnormalities, determination of the time and frequency of ovulation, and of the adequacy of corpus luteum effect, evaluation of the semen, as well as determination of tubal patency, all are investigations which must be taken into consideration routinely.

Rock[18] finds that there is no indication for dilatation and curretage of the uterus during the investigation of infertility—that an endometrial biopsy provides all the information necessary to understand the problem and institute treatment.

He believes that abnormalities of the uterus, whether partial or complete, are not incompatible with normal pregancy, but he recommends that, when ovulation and properly-timed insemination have been adequately frequent throughout a period of, say, two years and uterine abnormality has been proven by hysterogram, a plastic procedure be considered. He also believes that retroversion resulting in anterior displacement of the cervix may be an important factor but that replacement of the fundus, if necessary under anesthesia, and proper downward and backward replacement of the cervix by the use of a constantly worn pessary can, except in some nullipara, usually be expected to correct the situation.

Rock also believes that only by laparotomy is one able to detect adhesions within the fimbriae of the oviduct. Though the gas of the Rubin test may pass through and around such adhesions and x-ray media may seem to escape normally, adhensions can sometimes be found at laparotomy that decrease the mobility of the tube by spreading of the fan-shaped fimbriae with fine, smooth-tipped forceps. He believes that such adhesions can be incised and if hemostasis is assured, the mobility of the fimbriae is likely to be improved. Rock emphasizes that special instruments are of considerable importance when attempting any plastic operation for tubal obstruction. He believes also, that cornual angle implantations are more likely to succeed if the isthmus portion of the tube is sacrificed, and polyethelene tubing is threaded through the oviduct into the uterine cavity, to be fixed later to the portio of the cervix and removed per vagina after six or eight weeks. Operations around the fimbriae might well include the use of the polyethelene hoods Rock has described, which, however, unfortunately require a second laparotomy for their removal.

Endometriosis may be expected in somewhat less than one-third of the infertility problems that are operated for suspected adnexal pathology. Only in about half of the cases, however, are the lesions such as would actually seem to interfere with adnexal function. When adnexal pathology (whether inflammation or endometriosis) is suspected but not clinically evident, it has been suggested that culdoscopy may demonstrate an explanation of the difficulty.

When unilateral adhesions result in mutilization of the ovary or tube on one side to a degree that seems to jeopardize that adnexa's ability to function, some authors have advised, in the interest of that individual's fertility, to remove a "useless" ovary, when it has been made useless by a distorted, functionless adjacent tube. Such oöphorectomy is said to assure greater frequency of ovulation from the remaining ovary that is adjacent to a normally-functioning tube. Such prophylactic removal of an ovary adjacent to a non-functioning tube, at least to us, suggests overemphasis on the procreative function of an ovary, with less than due consideration of the worth of every ovary as a gland of internal secretion.

Buxton and Mastroianni[1] have recently emphasized that what might well be considered transportation failure in the tube may occur though the tube appears to be open and suggests that such difficulties should remind us that there are limitations in the significance of both the radiographic method and the Rubin insufflation method of evaluating the tube's ability to function.

In a discussion of the relative merits of repeated Rubin tests versus tubal plastic procedures, in 1957 Greenhill[6] again stated an old conviction that no surgery should be attempted in an effort to restore tubal patency without first attempting to open the tubes by a series of Rubin tests. In 1937, Greenhill[7] collected a series of 818 plastic tubal operations performed by a number of American gynecologists and reported that such efforts had apparently resulted in the birth of only thirty-six live babies: one live baby per each 22.5 operations, a success rate of only 4.4 per cent. His more recent study, restricted to a group of operators who had performed at least ten operations for tubal closure, resulted in the collection of a total series of 2,113 such operations following which 313 live children were born: one child after each six and a half operations, or success in 15.1 per cent of cases operated. Siegler and Hellman[21] have reported the collection of 2,285 cases of attempted tubal repair following which 378 live births occurred, one baby per six operations or success in 16.6 per cent of cases.

Southam and Buxton[25] have recently reported a group of 1,437 patients studied for sterility, each followed for a minimum of one year. In the total group, 22.4 per cent became pregnant within one year. At least 39.2 per cent eventually became pregnant. Twenty-four per cent of all pregnancies occurred two months after the first interview, regardless of the duration of their sterility. These investigators noted a slight but significant trend

toward decreasing fertility with the patients' increasing age. They found that pelvic inflammatory disease was the only abnormality detrimental to conception which was demonstrable on routine pelvic examination. Seventy-one per cent of the known pregnancies in their series terminated in the birth of a live child. Among patients with secondary sterility there was less pregnancy wastage after sterility than there had been before.

Stone and Ward[26] have recently presented a study of 500 pregnancies occurring among patients examined and treated by the fertility service of the Margaret Sanger Research Bureau. Over one-half of the couples who became pregnant did so within six months of their first registration in the clinic: over 80 per cent of the conceptions occurred within the first year. The factors apparently responsible for the pregnancy were divided into groups. Treatment of multiple and psychologic factors accounted for 50 per cent of the pregnancies, and an additional 30 per cent were ascribed to the treatment of tubal and cervical disorders. Only 5 per cent were considered due to observed improvement in the fertility of the male. The remaining 15 per cent were distributed among six other factors. The outcome of the pregnancy was known in 465 instances. Including neonatal deaths and fetal defects, there was a total pregnancy wastage of 20.6 per cent, not significantly greater than the pregnancy loss among our population, at large.

We have recently reviewed the results of the management of 534 patients whose complaint of apparent sterility has been investigated in our own office within recent years. This experience represents the combined practices of a group of four obstetrician-gynecologists, and we believe that our figures may be regarded as an indication of the results one might expect when referring a sterility problem to the average obstetrician-gynecologist at the present time.

We have excluded from our data all instances in which the wife sought advice before the couple had been trying to achieve a pregnancy for at least two years.

It has been surprising to us to learn that approximately 25 per cent of our cases failed to complete even the investigation recommended. It is our impression that in many instances (perhaps through our failure to enumerate the items that would make the investigative phase relatively expensive) patients are discouraged from continuing the study. The fact that office calls do not later or repeatedly involve such procedures as biopsy or tubal insufflation should perhaps be emphasized at the earlier investigative visits. Moreover, while it is not logical to begin treatment before an investigation has been completed, such apparent efforts on our part would probably instill a greater confidence in some patients.

Endometrial biopsy—evaluated by the histochemical criteria of Hughes as well as by the usual histologic considerations—gave us evidence that an endometrial deficiency was at least partially responsible for the difficulty in 30 per cent of our cases. Infertility was considered due to relatively poor semen in 26 per cent of the males examined, but pregnancy occurring apparently as a result of an improvement in male fertility was very rarely observed. Tubal closure was demonstrable in but 7 per cent of our cases.

Our results, in terms of the pregnancies achieved, do not include pregnancies accomplished after these women failed to return to our office. We have made no attempt to obtain a follow-up of the patients who did not return.

Among cases of primary sterility, 30 per cent became pregnant while under observation whereas 62 per cent of those who had previously achieved one or more pregnancies again became pregnant during the period of observation or treatment. Over-all, a little over one-third of our cases became pregnant while under observation; 57 per cent of those became pregnant during the time investigation was being carried out, 12.5 per cent became pregnant while under treatment, and the remaining 30.5 per cent became pregnant after the recommended investigation had been completed—and while "on holiday" at least as regards all treatment and all semblance of really scientific effort to achieve a pregnancy. Among those who became pregnant, however, nearly one-third either aborted or for one reason or another failed to deliver a living baby at term. Ectopic gestation alone accounted for one-third of this fetal loss, terminating 7 per cent of the pregnancies achieved.

In conclusion, we believe there is reason to believe that even normal apparently stable individuals may at times be victims of tension due to financial responsibilities, excessive social or political stress—anything adding strain to their lives—which may account for instances of purely psychosomatic sterility.

We would suggest, therefore, that when sterility

seems apparent, an orderly investigation should include efforts to be helpfully reassuring to the patient. There is good reason to believe that the measures employed will utimately seem to have been of therapeutic value. When pregnancy is achieved but fetal loss occurs, investigative measures are less likely to seem of therapeutic value. In such instances, treatment to assure an optimal environment for an early embryo seems most effective when employed before conception is again evident.

References

1. Buxton, C. L., and Mastroianni, L.: Evaluation of tubal function. Fertil. & Steril., 8:561, 1957.
2. Corner, George W.: Laboratory and clinic in the study of infertility. Fertil. & Steril., 8:494, 1957.
3. Corner, George W.: Embryonic pathology in mammals, with observations upon intra-uterine mortality in pig. Am. J. Anat., 31:523, 1923.
4. Decker, A.: Culdoscopic observations on tubo-ovarian mechanism of ovum reception. Fertil. & Steril., 2:253, 1951.
5. deWatteville, Hubert: Psychologic factors in the treatment of sterility. Fertil. & Steril., 8:12, 1957.
6. Greenhill, J. P.: Repeated Rubin tests vs. tubal surgery for tubal block. Fertil. & Steril., 8:551, 1957.
7. Greenhill, J. P.: Evaluation of salpingostomy and tubal implantation for treatment of sterility. Am. J. Obst. & Gynec., 33:39, 1937.
8. Heiman, M.: Psychoanalytic evaluation of the problem of "one-child sterility." Fertil. & Steril., 6:405, 1955.
9. Hughes, E. C., Van Ness, A. W., and Lloyd, C. W.: The nutritional value of the endometrium for implantation and in habitual abortion. Am. J. Obst. & Gynec., 59:1292, 1950.
10. Hughes, E. C., Lloyd, C. W., and Ledergerber, C. P.: The role of preconceptional study and treatment in abortion and premature labor. Proc., Internat. Cong. on Obst. & Gynec., p. 715, 1954.
11. Javert, C. T.: Repeated abortion. Obst. & Gynec., 3:420, 1954.
12. Mall, F. P.: A study of the causes underlying the origin of human monsters. (Third contribution to the study of pathology of human embryos.) J. Morphol., 19:1, 1908.
13. Mall, F. P., and Meyer, A. W.: Studies on abortuses; a survey of pathologic ova in Carnegie embryological collection. Contributions to Embryology, 12:No. 56, 13, 1921.
14. Mann, Edward: Psychosomatic aspects of infertility and abortion. Paper presented to Buffalo Obst. & Gynec. Soc., April 4, 1958.
15. Marsh, E. M., and Vollmer, A. M.: Possible psychogenic aspects of infertility. Fertil. & Steril., 2:70, 1951.
16. Randall, C. L., Baetz, R. W., Hall, D. C., and Birtch, P. K.: Pregnancies observed in the likely-to-abort patient with or without hormone therapy before or after conception. Am. J. Obst. & Gynec., 69:643, 1955.
17. Reynolds, S. R. M.: Physiology of the Uterus. 2nd Ed. New York: Paul B. Hoeber, Inc., 1949.
18. Rock, John: Surgery for female infertility. Fertil. & Steril., 8:513, 1957.
19. Rogers, Joseph: Emotional factors in disorders of menstruation and infertility. Bull. Tufts New England Medical Center, 3:12. 1957.
20. Schoeneck, F. J., Hughes, E. C., and Sargent, C. A.: Obstetrical versus pediatric responsibility in prematurity. Am. J. Obst. & Gynec., 64:126, 1952. Annual Vital Statistics Report, 1952, Vol. 1, No. 13, 1953, Public Health Service, Washington 25, D. C.
21. Siegler, A. M., and Hellman, L. M.: Tubal plastic surgery. Fertil. & Steril., 7:170, 1956.
22. Smith, O. W.: Diethylstilbestrol in the prevention and treatment of complications of pregnancy. Am. J. Obst. & Gynec., 56:821, 1948.
23. Smith, O. W., Smith, G. V., and Schiller, S.: Estrogen and progestin metabolism in pregnancy; spontaneous and induced labor. J. Clin. Endocrinol., 1:461, 1941.
24. Smith, G. V., and Smith, O. W.: Prophylactic hormone therapy. Obst. & Gynec., 4:129, 1954.
25. Southam, A. L., and Buxton, C. L.: Factors influencing reproductive potential. Fertil. & Steril., 8:25, 1957.
26. Stone, Abraham, and Ward, Mildred E.: Factors responsible for pregnancy in 500 infertility cases. Fertil. & Steril., 7:1, 1956.
27. Streeter, G. L.: Development of egg as seen by embryologist. Scient. Month., 32:495, 1931.
28. Sturgis, Somers H.: Higher education, uterine fluid, and sterility. Fertil. & Steril., 8:1, 1957.
29. Sturgis, S. H., Taymor, M. L., and Morris, T.: Routine psychiatric interviews in a sterility investigation. Fertil. & Steril., 8:521, 1957.

216 Summer Street

DO MENTAL POWERS DEGENERATE?

There is mounting evidence that mental powers do not decline after middle age, reports a University of Michigan expert.

Popular belief in the inevitability of mental decline after age forty or fifty stems from early tests conducted on cross sections of the total population several years ago, explains Wilma Donahue, Ph.D., chairman of the University of Michigan Division of Gerontology. These early tests showed younger persons were more intelligent than their elders.

But now—thirty years after the first test—a recheck of some of the "youngsters" by Iowa State College researchers has shown a considerable gain in average intelligence scores. In fact, none of those taking the tests a second time did poorer than on their first attempt three decades ago. The tests were not used to measure changes in the same individuals over a period of time. Instead, they compared the performance of different people of different ages.

Dr. Donahue believes that plain, lazy habits of thinking—simple failure to use the "old noggin" regularly—are probably as great a threat to continued mental health as physical and emotional mishaps the individual may encounter.

Injury Reduction by Identification of the Accident-prone Worker

By Kermit T. Johnstone, M.D.
Saginaw, Michigan

THIS report deals with a method of injury control which has been used in a large malleable iron foundry for three years. During this time we have noted a 37 per cent reduction in the incidence of injuries and a 50 per cent lessening of injury severity as measured by the number of dispensary visits needed for their care. The reduction of dispensary visits has produced a savings of $38,000.00 worth of man-hours during the years of 1955, 1956 and 1957. During 1957, this item alone amounted to $1.46 for every 1,000 hours worked.

Many of the injuries are produced by unrecognized job hazards. Since the injuries happen at odd intervals, and to different men doing the same job, the foreman in charge does not realize that there is a job factor operating. These situations are revealed when the performance of the individual worker is compared with that of the plant as a whole. There will be an undue frequency of injury. The cause of this may be in the job itself or in the way the man is doing his work. We have found that a man will demonstrate his way of doing his job in a two-month period. The problem becomes: *How often can a man expect to be injured in a two-month period?* There is no pat answer to that question for the likelihood of injury varies too widely from one industry to another. If a worker reports one injury a year he presents no problem. However, if he comes in every other day with a fresh injury and we have seen just that occur there most certainly *is* a problem with him, his job, or both.

The man's record must be compared with that of the other workers in his plant. The record of the other employes is the over-all incidence of injuries in the plant. This is expressed as the number of injuries reported per thousand man-hours worked.

The number of injuries to be expected per man in a two-month period is easily computed. Based on a forty-hour week, it is .346 times the injury rate per thousand man-hours, plus two times the square root of that product. For a forty-eight-hour week, the decimal 0.412 is substituted for .346. For example: Let's take our 1954 injury rate. It was 3.92. We were treating four new injuries for every thousand man-hours worked during that year. The formula worked out this way:

> .346 x 3.92 plus two times the square root of that product.

This is 1.36 plus 2.34 or 3.70. The individual that reported four or more injuries in two months that year was sufficiently above plant average to justify asking *why*. We found in talking to these men that nine out of ten knew why they were getting hurt.

To put this program into effect several requirements had to be met.

1. We could not add any personnel to the payroll since we had a budget to live with. This, I understand, is a rather common situation.
2. The information had to be in such form that a supervisor knowing nothing about medical statistics could use it to interview a man.
3. It had to be current. To give a foreman a list of injuries that occurred four, five or six months ago is useless. The circumstances of the injuries by that time have been forgotten by the individual.
4. We wanted to identify *all* of the men that were involved, regardless of the job they were doing. At the same time we wished to leave undisturbed the others.

The following procedure has answered all of these requirements:

1. A simple method of coding reported injuries in the form of a fraction is used to indicate the part of the body involved and the type of injury. This code may be varied to accommodate injuries peculiar to any type of industry.

Presented at the Michigan Clinical Institute, Detroit, March 19-21, 1958.

INJURY REPORTING CODE

Injury Code

1. Abrasion—Contusion
2. Laceration—Puncture Wound
3. Sprain—Strain
4. Ache or Pain
5. Friction Burn
6. Thermal Burn
7. Ultra Violet Burn
8. Local Infection
9. General Infection
10. Heat Stroke—Exhaustion
11. Fracture
12. Foreign Body
13. Infectious Dermatitis
14. Contact Dermatitis
15. Amputation
16. Tenosynovitis
17. Bleeding
18. Hernia
19. Fumes—Co.
20. Arthritis
21. Disc—Cartilage
22. Dislocation
23. Bursitis
24. Concussion
25. Occupational Disease
26. Respiratory Illness
27. Intestinal Illness
28. Genito-Urinary Illness
29. Other Illness
30. Death

Anatomical Code

A. ARM
1. Fingers
2. Hand
3. Wrist
4. Lower Arm
5. Elbow
6. Upper Arm
7. Shoulder
8. Scapula

B. BACK
1. Lumbar
2. Sacral
3. Coccyx

C. CHEST
1. Front
2. Side
3. Back

E. EYE
1. Lid
2. Cornea
3. Sclera

Ea. EAR
1. Lobe
2. Canal
3. Drum

F. FACE
1. Brow
2. Cheek
3. Chin

G. GENITALS
1. Penis
2. Scrotum
3. Prostate
4. Labia
5. Urethra
6. Vagina
7. Rectum

H. HEAD
1. Top
2. Side
3. Back

L. LEG
1. Toes
2. Foot
3. Heel & ankle
4. Lower leg
5. Knee
6. Upper leg
7. Hip
8. Buttock

M. MOUTH
1. Lips
2. Teeth
3. Tongue

N. NOSE
1. Nose
2. Nostril
3. Bridge

Ne. NECK
1. Front
2. Side
3. Back

S. STOMACH
1. Front
2. Side
3. Groin

T. THROAT
1. Tonsils
2. Pharynx
3. Larynx

R—Right
L—Left
B—Bilateral
M—Moderate

S—Severe
SH—Sent Home
XR—X-ray
Px.—Physical Exam.

LDW—Last Day Worked
RW—Returned to Work

FILE CARD

11028	H. E.
8 / 5 /55	N/5
8 /19/55	RA2/5
8 /25/55	LA15/4
9 /20/55	LL3/5*
2 /23/56	LA2/1
4 /25/56	RA4/6
5 /24/56	BE/12
6 /15/56	BA3/1
6 /29/56	SRL3/6*
8 /22/56	M1/6
8 /27/56	RA12/1
9 /10/56	RA11/14*
9 /19/56	LA12/2
9 /26/56	LL5/1
2 /14/57	LE/12
2 /18/57	N/6
3 /19/57	H3/2
3 /26/57	LA4 & NE3/6*
4 /10/57	LA2/1
4 /23/57	BA11/5
5 /17/57	LA12/2
9 /26/57	LE/12
11/11/57	RA2/6
11/26/57	RA2/6*
12/12/57	RA2/6
12/18/57	F1/6
1 /23/58	LE/12

*Line Indicates Reported to Supervision.

2. When a worker comes in, the nurse notes the injury on her daily report, showing the badge number and the injury in code. Thus, the notation 35016 RA3/3 means a man having that number suffered a sprained right wrist.

3. An inexpensive 5 x 8″ file was set up with a card for each man, showing his name and badge number.

4. Each day the nurse or clerk posts the preceding day's injuries to these cards. The entry shows the date of injury and its code.

5. At the time of posting the cards showing more than the allowable number of injuries in the preceding two months are laid to one side. The others are refiled.

6. The selected cards are used to compose a report to the department superintendent and plant management, showing the man's name, badge number, dates and types of injuries.

7. Within twenty-four hours the superintendent or general foreman interviews the man regarding these injuries.

The tone of the interview is *most* important. The man is never criticized for being injured too often. The supervisor, instead, asks how the in-

LETTER FORM

CENTRAL FOUNDRY DIVISION
SAGINAW MALLEABLE IRON PLANT
GENERAL MOTORS CORPORATION
INTER-ORGANIZATION LETTERS ONLY
DATE 11-26-57

SUBJECT Individual Injuries

TO All Department Superintendents ADDRESS Saginaw Malleable Iron Plant

The following injuries have been reported by these individuals:

11028	H. E.	9-26-57	Foreign body—left eye
		11-11-57	Burn—right hand
		11-26-57	Burn—right hand
11012	R. R.	10-22-57	Burn—left ankle
		10-24-57	Laceration—left foot
		11-26-57	Abrasion—left wrist
12290	E. N.	11-13-57	Foreign body—both eyes
		11-22-57	Strain—left wrist
		11-26-57	Contusion—right ring finger
16685	McK. M.	11-14-57	Foreign body—right eye
		11-22-57	Foreign body—left middle finger
		11-26-57	Abrasion—left index finger

cc:
Corp
Karam
Orloff
Leppien
Gleffe
Phelan
Koval
Howard
Goodrich
File

(Signed) K. T. Johnstone, M.D.
Medical Director

juries occur and what he, the supervisor, can or should do about it. This approach has turned out to be very favorable from the psychological standpoint. All of us have at one time or another, longed for the day when we could tell the boss how the job could be done better. Approximately 97 per cent of the men interviewed knew exactly why the injuries occurred. Very often they had sensible suggestions as to how they could be avoided.

The oral interview is a much less formal approach than the suggestion plan. That requires the completion of a form. Writing does not come easy to the men with whom we work. For that matter, in writing this paper, I have found that it doesn't come easy to me either.

It has been our experience that the farther a man exceeds the expected number of injuries, the more definite is the operating cause. When these factors are recognized they can be corrected, not only for the man involved but also for the others doing the same work.

An unexpected bonus that we did not foresee has turned up in this program. All injuries are noted, even the most trivial. At first, this appears to be unnecessary. However, whether a shear blade skins a finger as it closes, or takes the finger off, is only the question of a fraction of an inch, or the fraction of a second. The stage has been set, so to speak, for either to happen. The men soon realize that the supervisor is just as interested in the scratched fingers as the amputated ones. The man that is careful enough to avoid scratches is not going to put his whole hand into a press. For this reason we have seen both the minor and more serious injuries decline.

Earlier, mention was made that about 97 per cent of the individuals were co-operative. The remaining 3 per cent were different.

1. Their injuries followed no pattern. In a group of five or six reported injuries they are scattered over the body and of different types, in-

(Continued on Page 134)

Tic Douloureux

By Austin E. Lamberts, M.D.
Grand Rapids, Michigan

TIC DOULOUREUX, also called trigeminal neuralgia, is usually relieved by diphenylhydantoin (Dilantin) given orally. Thirty patients with this diagnosis were given capsules of diphenylhydantoin, 1/10 gm. t.i.d., as specific treatment and in almost every instance relief from pain was complete within forty-eight hours, but usually not before twenty-four hours after treatment was begun. The dosage had to be doubled in two of these people before the pain disappeared and in only one woman was it ineffective initially.

In this present series, which was observed over a four-year period, the diagnosis was established by obtaining a history from each patient and then performing a neurologic examination to eliminate other causes of face pain. The patients were equally divided as to sex and with an age span from thirty-one to eighty-six years. The average age and the mean age was sixty years. All of these people had paroxysmal lancinating pains in the face occurring spontaneously or after mechanical stimulation of trigger points by eating, chewing, washing the face or even by exposure to a cold breeze. Various divisions of the trigeminal nerve were involved and, in general, the histories obtained were comparable to those given in any textbook of neurology where this subject is discussed. On neurological examination, none of these people had a neurologic deficit in the trigeminal pattern nor was the corneal reflex lost in any of them. Without exception, these people had had other forms of treatment including adjustments of the cervical spine, parenteral vitamin injections and foreign protein therapy. Some of them had had nerve blocks with alcohol with subsequent return of sensitivity, and all of them had undergone dental examinations. One patient had probable involvement of both the trigeminal and glossopharyngeal nerves.

After a clinical diagnosis has been established, each patient (as well as his family), was given a brief résumé of the known facts of the disease. He was told that the exact cause for the pain had never been established and that the only positive relief of symptoms could be obtained by sectioning the offending nerve roots intracranially. He was told that the disease is characterized by flare-ups of the pain and spontaneous remissions which have been known to persist as long as forty-two years. If any treatment is continued long enough, a remission will be forthcoming providing the patient can tolerate the pain that long. Our purpose as explained to each patient, was to produce a remission and not a cure. He was then given a prescription for Diphenylhydantoin to be taken one capsule of 1/10 gm. each, t.i.d., following meals.

The results of this treatment were gratifying. In most of these patients the pain left abruptly on the second day of treatment and could then no longer be precipitated by stimulation of the trigger points. Medication was continued for thirty days and symptoms were re-evaluated. Some of this group noted tiny twinges of pain early in the morning before they had taken the first capsule of Diphenylhydantoin but this served as a guide for continuation of treatment. For those who had no pain, treatment was discontinued unless there was an exacerbation of the discomfort. In several patients symptoms recurred within forty-eight hours after cessation of medication only to subside as treatment was resumed.

In spite of the favorable initial response many patients in this series eventually developed intractable tic douloureux which did not respond to further medication even when it was pushed to the point of intoxication. This segment included twelve patients and to these surgical treatment was recommended. In this dozen patients a trigeminal decompression as recommended by Taarnhøj[1] was performed with lasting relief of symptoms up to three years but without paraesthesias, numbness or the other unpleasant sequela which may follow section of the retro gasserian fibers.

The use of diphenylhydantoin for trigeminal neuralgia was advocated by Roques[2] in France in 1951 and again by Hans Peter Jensen[3] in Germany in 1954. These workers also concluded

that this was a valuable medication in producing remissions from the pain though they did not attempt to explain how it did so. Tic douloureux has been classed as a paroxysmal disorder and as such it is related to the convulsive disorders, but we do not believe that the basic cause of this condition has been discovered. It may be significant that an anti-convulsant medicine is effective in controlling this paroxysmal pain. The following cases may be of interest.

Case Reports

Case 1.—C. Mc. M. was about fifty-two years old when he had the onset of paroxysmal lightning-like stabs of pain in the left cheek. Initially he had spontaneous remissions for months at a time but eventually he looked for relief and had many treatments including injections of the nerve with alcohol and avulsion of the infraorbital division. After a remission of some months he had sudden onset of pain on September 1, 1954. When we saw him on September 20, 1954, he had had repeated hypodermic injections of narcotics and much oral barbiturates so that he staggered in—looking very unkempt. He was able, however, to give me a history. He talked about the twisting turning lightning pain which was so severe that he screamed with the onset of each new episode. The pain was precipitated by shaving, washing his face, touching the left cheek or by eating, so he tried to avoid all of these activities. His affliction was diagnosed as tic douloureux —2nd division on the left side—and diphenylhydantoin was prescribed, 1 gm., t.i.d., which he began at once. The following day at noon he had his final paroxysm and from then on he was pain-free and able to resume work as a tavern keeper. He occasionally had a mild flicker to remind him that his neuralgia was only dormant so he continued taking his medication until his sudden death from coronary occlusion on March 14, 1956. He had been free for one and one-half years. The longest remission since the disease had its onset.

Case 2.—L.S., a fifty-year-old housewife, developed severe pain in the left lower portion of her face about December 1, 1953. This was intermittent and touching a small area on the side of the tongue gave her an electric shock like pain through the tongue and left lower jaw. Talking, eating, drinking cold liquids or smoking all tended to set off a paroxysm of pain, although between times she was pain free. She had severe gingivitis and was convinced that this was the cause of her discomfort. The oral surgeon she consulted referred her to us for treatment of her tic douloureux. After performing a neurologic examination we concurred in this diagnosis and prescribed diphenylhydantoin, .1 gm. t.i.d. She obtained complete relief of symptoms almost immediately, but within two weeks she had a recurrence of pain so increased the dosage of her medication to .2 gm. t.i.d., which gave her relief of the trigeminal neuralgia, but this caused such intoxication that she could no longer walk unassisted. However, she preferred this state to the painful state. Eventually she elected to have surgery performed and on October 8, 1954, a trigeminal decompression was performed under general anesthesia. Through a left subtemporal approach, the dura matter over the retrogasserian roots was opened wide and the petrosal sinus was divided. She tolerated this procedure well and postoperatively had no recurrence of her tic douloureux. There was no motor weakness and the corneal reflexes were retained. This lady had in previous years had numerous complaints relating to almost every body system and postoperatively these continued unabated; however, she is able to do her housework as before and has had total relief of trigeminal discomforts to the present time.

Diphenylhydantoin has been given to other patients with face pain in similar dosage with no relief of symptoms. In this way we have learned that it is ineffective in trigeminal neuritis where there is a demonstrable neurologic defect, in paroxysmal vascular headaches, in derangements of the temporomandibular joint with secondary face pain or in other atypical face pains. We advised this medication for a seventy-seven-year-old woman who had trigeminal pain that we conjectured was due to a cerebello-pontine angle tumor. Her feebleness and lack of other evidences of disability dictated this course which gave a partial but satisfactory relief of symptoms.

Best results with this conservative management of tic douloureux have been in the older groups, and in these patients no intolerance to the medication was noted. We recommend this as a satisfactory means of giving relief to a high proportion of patients with acute tic douloureux.

References

1. Taarnhøj, Palle: Decompression of the trigeminal root. Neurosurg., 11:299-305 (May) 1954.
2. Rouques, L.: Treatment of facial neuralgia with derivatives of hydantoin. Presse méd., 59:523 (April 18) 1951.
3. Jensen, Hans-Peter: Treatment of trigeminal neuralgia with diphenylhydantoin. Arztl. Wchnschr., 9:105-108 (January 29) 1954.

Reconstructive Operation for Urethral Stricture

By Harry E. Lichtwardt, M.D., F.A.C.S.
Birmingham, Michigan

URETHRAL STRICTURE implies a pathologic diminution in the caliber of the urethral lumen and may be congenital or acquired. The acquired stricture, which is the result of infection or trauma, may be a crippling condition especially when complicated by fistulae, diverticula, urethral calculi, periurethral abscesses or urinary extravasation. Many methods have been proposed for its definitive treatment but most have met with little success.

In 1953, Bengt Johanson[3] devised a reconstructive operation which now refutes the old adage of "once a stricture always a stricture."

In 1949, Denis Browne[2] presented the buried-strip method for repair of hypospadias. He used the principle that a buried strip of skin will form a tube. Johanson incorporated this principle in his two-stage urethroplasty.

In the first stage of the procedure, he incised the strictured urethral mucosa and anastomosed it to the adjacent skin, in effect creating a hypospadias. A suitable period of time was allowed to elapse before the next stage was accomplished. In the second stage of the procedure, a strip of mucosa and adjacent skin was isolated and buried. In fourteen days a new urethra of adequate caliber was formed.

At Wayne County General Hospital, Eloise, Michigan, we have completed sixteen Johanson urethroplasties. Our indications for urethroplasty are:

1. Patients who require dilatations more often than every two months.
2. Patients who require general anesthesia for each dilatation and who require dilatations more frequently than every three months.
3. Patients with strictures complicated by urethral diverticula or urethro-cutaneous fistulae.
4. Patients thirty years or younger who require dilatations more often than every six months.
5. Patients with impassable strictures.

Presented at the annual meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

Technique

Panendoscopy, cystoscopy and urethrograms are performed when possible to further evaluate the extent and severity of the stricture.

Depilation of the scrotal hair was done prior to the first stage, in the first thirteen cases, to prevent hair being incorporated into the buried skin strip. To some, this represents the first stage of the operation because of its tedious nature. Four to seven days are allowed for healing of the depilated scrotum.

The first stage is accomplished in strictures of the penile and distal bulbous urethra by making a longitudinal incision directly over the point at which a No. 26 French sound cannot pass. The incision is made through the skin, corpus spongiosum and urethral mucosa for the entire length of the stricture. The stricture is considered to be adequately incised when a No. 28 French sound can be passed with ease through the portion of urethra distal and proximal to the original stricture. The skin is anastomosed to the urethral mucosa with interrupted 3-0 chromic catgut sutures. A Foley catheter is passed into the bladder through the urethrostomy and left indwelling twenty-four to seventy-two hours.

Strictures of the deep bulbous and membranous urethra are approached through an inverted U perineal incision. The bulbous urethra is exposed and a longitudinal incision made over the entire stricture. The proximal extension can be made to the verumontanum without fear. If fistulae are present they should be completely excised at this point. Instead of anastomosing the incised urethra to adjacent skin, as is done for stricture of the pendulous urethra, it is necessary to draw a flap of scrotal skin down between the incised borders of the bulbous urethra. This maneuver will make it possible to anastomose the urethra to skin.

The scrotal flap is made by making a transverse incision midway between the perineal incision and the penoscrotal junction. The lower edge of the skin is then grasped and drawn down into the scrotum in an inverted manner. The remainder

of the scrotal skin is sutured to the urethra until a funnel-shaped urethrostomy is formed. Drains are placed in the scrotum for about three days and an indwelling Foley catheter left in the urethrostomy for forty-eight to seventy-two hours.

The second stage is performed a minimum of six weeks later depending upon the completeness of healing and vascularization. At the beginning of this stage the urine is diverted by a suprapubic cystostomy.

A strip of urethral mucosa and adjacent skin is incised which has the width of the circumference of a No. 28 French sound. This is contrary to the belief of Browne and Johanson, who feel that there is secondary epithelialization and the eventual circumference of the tube is greater than the width of the original buried skin strip. Studies by Nesbit and Butler[4] revealed that the eventual circumference of the buried skin tube is but little greater than the width of the original strip.

The lateral skin edges are undermined so they can be approximated over the buried skin strip without tension. Tension sutures of No. 32 wire[1] are used with pearl beads and aluminum tubing threaded over the wire. By this method the tubing may be cut, loosened and recrimped to allow for postoperative edema. The skin edges are closed with No. 5-0 nylon sutures. In our more recent cases, this type of tension suture has been replaced by three layers of No. 32 wire sutures placed in a subcuticular manner, with excellent results. The wire sutures are removed on the seventh postoperative day and the nylon sutures three days later. The suprapubic tube is then clamped and the patient allowed to void through the newly-formed urethra. If voiding is satisfactory the suprapubic tube is removed and calibration is done in about six weeks.

Results

In analyzing the results of the sixteen Johanson urethroplasties performed at Wayne County General Hospital, thirteen were excellent. Two developed spontaneous closure of the proximal urethrostomy eight to ten weeks after the first stage, and have required periodic dilatations following the second stage. There is little mention of this complication in the literature. In our experience this seems to indicate that when spontaneous closure occurs, the first stage should be redone. In one patient a diverticulum developed at the proximal portion of the repair. His symptoms were eliminated by instructing him to apply perineal pressure postvoiding and thus emptying the diverticulum.

Summary

The indications and technique of the Johanson urethroplasty for urethral stricture are described. The results of sixteen cases performed at Wayne County General Hospital are briefly reviewed.

References

1. Bobbitt, J. M.: Retention sutures in urethroplasty. J. Urol., 76:406-407, 1956.
2. Browne, Denis: Hypospadias. Postgrad. M. J. (London), 25:367-372, 1949.
3. Johanson, B.: Reconstruction of male urethra in strictures. Acta. Chir. Scandinav., Suppl. 176, Stockholm A53.
4. Nesbit, R. M., Butler, W. J., Whitaker, W. L.: Production of epithelial lined tubes from buried strips of intact skin. J. Urol., 64:387-395, 1950.

606 N. Woodward Ave.

ANEURYSMS OF THE POPLITEAL SPACE

(Continued from Page 83)

5. Janes, J. M. and Ivins, J. C.: A method of dealing with arteriosclerotic popliteal aneurysms. Surgery, 29:398-406, 1951.
6. Julian, Ormand C., Dye, W. S., David, H., and Grove, William J.: The use of vessel grafts in the treatment of popliteal aneurysms. Surgery, 38:970-980. (July-Dec.) 1955.
7. Linton, Robert R.: A report of fourteen patients treated by a preliminary lumbar sympathetic ganglionectomy and aneurysmectomy. Surgery, 26: 41-58 (July-Dec.) 1949.
8. Lord, Jerome W., Jr.: Clinical behavior and operative management of popliteal aneurysms. J.A.M.A., 163:1102-1106. (March 30) 1957.
9. Milroy, Paul: Aneurysm of the popliteal artery from perforation by a cancellous exostosis of the femur. J. Bone & Joint Surg., 35b:270-272. 1953.
10. Silverman, Jacob J. and Hurwith, Elliott, S.: Subcutaneous rupture of a popliteal aneurysm with a diagnostic Roentgen sign. A.M.A. Arch. Int. Med., 100:314-318. (Aug.) 1957.

344 Glendale Avenue
Highland Park, Michigan

"You Gotta Have Heart"

The title is colloquial, a song lyric direct from Tin-pan Alley, but the philosophy is as old as nature.

As medical men, we are concerned with the heart as an organ of the body and to good purpose we dedicate an issue of our Journal to its scientific exploration.

However, through the ages "heart" also has come to mean courage. And courage is often not a physical thing at all. This kind of "heart" is harder to evaluate scientifically, if indeed it can be. But it is equally as important to the patient as the organ itself.

I think this is true of the medical profession, too. Our organic heart is the medical society and its kindred constituent, component, and ancillary organizations. The proper functioning of this complex is dependent upon our decisions maintaining a delicate balance of interest, a smooth flow of information and the proper timing of action.

Sometimes, under attack by outside forces, this "heart" tries to crowd in an extra beat to keep up with the new irritation. It has extra systoles as the organization rises to meet the challenge.

Meanwhile, the other "heart," the fraternally-knit spirit of the profession, carries on with the same undaunted courage, the same confidence in itself and its ability to solve the problems of disease, of disruption and discouragement.

"You Gotta Have Heart" . . . both "hearts." And they're both yours!

Delbert D. Donaldson

President, Michigan State Medical Society

President's



Message

Editorial

NEW PROBLEMS—NEW RESPONSIBILITIES

With the opening of this new year, the medical profession in Michigan and in the United States generally faces new problems and new responsibilities but never yet has hesitated to meet the future. There have been some tremendous advances in medicine reported in the various assemblies, conferences and meetings—especially at the two American Medical Association sessions held annually and the two meetings sponsored by the Michigan State Medical Society (the Annual Session in September and the Michigan Clinical Institute in March.)

The Journal of the Michigan State Medical Society and other journals throughout the land have published these new reports. We are proud of what has been presented in Michigan, and we are proud of the tremendous amount of research work that our two medical schools have been doing. We are anticipating even greater rewards in the immediate future. The science of medicine has continued to advance and the medical practitioner must of necessity keep abreast of this work in order to give his patients his best and most skillful attention.

MEDICAL EDUCATION

During the year, Wayne State University has accepted an extra fifty students in the freshman class, due in great measure to the activities of the Michigan State Medical Society and its representations to the legislature. An increase in the student body was authorized in an effort to supply the increased need of medical men in our state. The medical population is increasing much slower than our total population. Wayne State University Medical School will be graduating an extra fifty students when this class has passed through its training period. That is only the first step.

We must remember that the John Dale Russell report to the legislature regarding higher education in the State of Michigan emphasized the fact that Wayne State University Medical School should be brought to its fullest potentiality and should be supported strongly before any serious and economic thought be taken regarding the establishment of a third medical school. Physical facilities and an enlarged faculty can be more economically and readily acquired when Wayne State College of Medicine reaches its maximum capa-

AN HISTORIC DOCUMENT!!

Supplementary Report H of Council on Medical Service—Voluntary Health Insurance or Prepayment Coverage for the Aged.

—Your reference committee believes this report should be approved with the changes as underscored in the following:

"For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health *insurance* or *prepayment* plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens.

"Therefore, the Council on Medical Service recommends to the House of Delegates the adoption of the following proposal: That the American Medical Association, the constituent and component medical societies, as well as physicians everywhere, expedite the development of *an* effective voluntary health insurance *or prepayment program* for the group over sixty-five with modest resources or low family income; that physicians agree to accept a level of compensation for medical services rendered to this group, which will permit the developemnt of such *insurance and prepayment plans* at a reduced premium rate.

"This recommendation has been studied and restudied by the Board of Trustees and has received its wholehearted endorsement."

Your reference committee recommends that in order to effect the immediate implementation of such a program, copies of this report be distributed to medical society approved plans, including Blue Shield and private insurance programs, requesting their co-operation. (*Passed unanimously*)

city for training medical students before starting the third medical school.

A most important revision of the curriculum is soon to be announced by the College of Medicine involving a study over the past two years by the faculties of the Medical School, the College of Liberal Arts, and visiting medical educators with the objective of improving some of the most troublesome features of the "lockstep" medical curriculum.

* * *

During this past year, the University of Michigan has taken an enormous step forward. Dean Furstenberg and his advisors have recognized the tremendous increase in volume of the material available and the fields open for teaching medical students. A study has been made and reports given looking to an evaluation of the scientific material, the teaching necessities, and suggestions for improving the curriculum in the near future. At the earliest possible moment, we shall publish a paper outlining and giving to our membership a picture of the program and plans being developed at one of the nation's medical colleges. The University of Michigan Medical School, in addition to its 762 students in the four undergraduate classes, has under instruction graduate medical students, interns, house physicians, specialty and board trainees, research workers, postgraduate and other students from closely allied professional groups, totalling more than 2300 persons in training.

In 1954, the problem of shortage of Doctors of Medicine in Michigan and our gross negligence in providing and training them prompted a survey. (See editorial, Page 1346, November, 1955). During the ten years ending in 1954, the Michigan State Board of Registration in Medicine had registered a total of 4,321 Doctors of Medicine as follows: 1,057 from the University of Michigan School of Medicine; 601 from Wayne University College of Medicine; 2,635 from other states, and twenty-eight foreign. Of course, some Michigan graduates went to other states, but the net difference was 2,663. The State of Michigan needed and secured an average each year of 266 medical men more than our own economy produced.

We have just completd a resurvey of the past five years. In the years from 1954 to November 21, 1958, the State Board of Registration in Medicine has licensed 2,476 medical graduates. Of these, 805 were graduated from the University of Michigan; 318 came from Wayne University; 1,185 were from other states, and 168 were from foreign schools, other than United States and Canada. We imported a net of 1,353, or an average per year of 271. During the last five years, the University of Michigan has graduated 871, indicating that a total of sixty-six went to other states. Michigan is in no way carrying its proportion of the educative and training burden to provide medical doctors for the care of her people (45.3 per cent)!

THIRD MEDICAL SCHOOL?

A third medical school is still being considered, with several possibilities. A new medical school of necessity would demand close affiliation with a functioning University or College of Literature, Science and Arts in order to supply much of the undergraduate and premedical training necessary. Grand Rapids has been mentioned as a locale for a medical school. The Collegiate or University Association could be developed from the several colleges at present available there.

Kalamazoo was at one time mentioned as a suitable city for the projected medical school. It has Western State University, with the collegiate and scientific facilities—also Kalamazoo College, and Nazareth Academy—three collegiate institutions. Lansing, with its Michigan State University, was mentioned as a suitable site. In both these cities, hospital construction would be essential, and importation of clinical material for teaching and demonstration. Flint should also be mentioned, but it is understood that this is ambitious planning at present.

The Detroit area cannot be ignored. Detroit is the only great city in the United States with only one medical school. Collegiate or University bonds could be used. The University of Detroit or Dearborn Junior College might be available; at least, they are there and now functioning. In Detroit, there are many hospitals whose beds and patients could readily furnish clinic and research needs, including probably the world's largest free or relief and welfare concentration of patients at Eloise. In this situation, a medical science building would be needed.

BLUE SHIELD

Blue Shield throughout the United States and Canada is now suffering from growing pains. The original concept and "raison d'etre" was to provide essential medical care for the lower income group to whom, at that time, any considerable medical

attention constituted a calamity. Only limited but extremely essential surgical services were provided on a prepayment basis. The program was so successful that it expanded of its own efforts. During the years, demands for extended services and more coverage as well as "fringe benefits" have changed the very modest and unpretentious beginning into a "public trust," privately operated by the medical profession on nonprofit insurance principle basis, as well as stimulating a gigantic commercial insurance business.

For several years, leaders in the movement have been considering and advising the inclusion of many more benefits, and the elimination of certain inequalities and abuses. In the beginning, only hospitalized care was offered, in the belief that hospitalization with its proportionately greater impact on the family budget would aid in establishing the emergency and need for the surgery contemplated—the primary need. During the years, it became evident that many conditions could be cared for outside the hospital; that changing social trends were producing a demand for much broader benefits including hospital outpatient and office care, thus releasing hospital beds for more serious cases and reducing the overall costs.

In September, 1956, the House of Delegates of the Michigan State Medical Society officially appointed a study committee to take a new look at Michigan Medical Service, to co-operate with a committee already established by The Council for a similar purpose, with instructions to bring in a report at the 1957 Annual Session. The intervening period included a special session of the House of Delegates, authorization for a Market Study Survey, the reports of these two committees which furnished material and bases for the House of Delegates in September, 1957, to adopt a set of principles and give instructions for a complete modernization and elaboration of the prepaid medical care policy. In accordance with these principles and directives, a new medical care program, known as M-75, was created. Every effort was made to conform meticulously to the principles and directives and to establish a satisfactory fee schedule. All groups and specialties were invited to submit suggestions, but too many overlooked the deadline.

A temporary working relative value scale was established and a continuing study committee appointed. The new Relative Value Fee Scale Committee is expending thousands of hours and dollars in an attempt to give us an independent Michigan schedule completely representative of our membership. Every known medical specialty has been invited to appoint representatives and confer with this basic committee.

It is appreciated that advances in medical science and changes in procedure will necessitate changes in any fee schedule through the months and years, since the relative value will change. For this reason, the House of Delegates has set up this permanent study committee, whose duty it is to suggest changes as they seem necessary. Counsellor District Committees also have been established all over the state with a permanent secretary. These committees are to confer with individual members who have problems or who consider that they have been inadequately paid for certain special services. Every attempt has been made to make available individual consideration for all unusual and problem cases.

Such is the accomplishment up until the year 1959. This year could be just as strenuous and just as vital to the non-profit medical care concept of the medical profession as the past years. In Michigan, our new program already covers over two million people, some of whom are certain to be very critical of the administration and functioning of our contracts.

There have always been and always will be members of our profession who have not and will not conform to the plans and programs set up by and for the majority. The Insurance Commissioner, before allowing our Blue Shield program to work, has demanded that a sufficient proportion of our members be participating in order to guarantee the adequate function of the plan. Our patients, including labor and management, have faith in us and will continue to have if we, as individual doctors or groups, give services, avoid abuses, and make the program work.

The next eight or ten months will be the time of decision. Will the medical profession continue to set its own rules of procedure, of service, of relationship with the public? Twenty or twenty-five years ago, the threat of the federal government to take over and administer a cradle-to-the-grave health program was very real. Some of our medical statesmen believe that that basic philosophy could again become rampant. It surely will, if the medical profession doesn't run its own business—and run it to the benefit of the people.

A STATEMENT OF PRINCIPLES

One thing of importance to remember is that you all become representatives and officers of the AMA when you are seated as delegates in this House. You are chosen by your state or territorial association, or section to sit in this body and to decide what is the best for American medicine. You must have a general understanding of what your local group desires, yet you should vote as your intelligence and conscience dictate. If every delegate were to vote only as instructed, possibly weeks or even months before the meeting of the House, there would be little point in holding any meeting or convention. You could stay home and mail in your instructions to the central office where they would be summarized and the results announced. I have always found the members of this House to be men and women of the highest calibre, and we are proud of your actions.—E. Vincent Askay, M.D., Speaker of the AMA House of Delegates.

HEALTH CARE FOR OUR SENIOR CITIZENS

Prepayment of medical care for the elderly has long been a matter of urgent and continuing concern to the medical profession and its Blue Shield Plans. Within the past year, however, this problem has been made something of a political issue through the introduction of such legislation as the Forand Bill, which, if adopted, might radically affect the future of the entire voluntary health care movement in America.

What are the facts concerning Blue Shield coverage of senior citizens? What has the medical profession accomplished, through Blue Shield, to meet this challenge?

The answers to these questions will be of immediate interest as a New Congress meets—a Congress in which social welfare programs are certain to be accorded a high priority.

Some of these answers, as reported recently to the AMA Council on Medical Service by the national association of Blue Shield Plans, are truly encouraging.

Thus, in 1951, among a total Blue Shield enrollment of 21 million persons, nearly a million (a little less than 5 per cent) were over sixty-five years of age. Six years later, in 1957, among the total of 40 million persons enrolled, 2.5 million (6.5 per cent) were over age sixty-five. Thus, in these six years, the number of Blue Shield members over sixty-five increased 170 per cent, while total Blue Shield enrollment increased only about 85 per cent.

Attention was called also to the fact that of the total number of people past sixty-five who have medical-surgical insurance coverage, about two-thirds are covered by Blue Shield.

Of all the people in the United States, it is estimated currently that about 15 million are over sixty-five years old, and are not cared for by an established institution or agency. This represents approximately 8 per cent of the total population. Thus Blue Shield's ratio of 6.5 over age sixty-five is reasonably related even now to the ratio of the total population in that group—and rapidly approaching parity with it.

Blue Shield has always sought to serve medicine's inescapable responsibility to the whole community. It was until recently almost an exclusively Blue Shield feature that any member on retirement, or on leaving an insured group, could retain his coverage by "conversion" to a "direct-pay" basis. Few Plans impose any age limits on initial group enrollment, and an increasing number of Plans are accepting non-group members regardless of age.

Blue Shield is aware of medicine's responsibility to our senior citizens, and is prepared to follow the guidance and leadership of the profession in helping it meet this challenge.

STOMACH ULCERS

Charles J. Tupper, M.D., assistant professor of internal medicine told physicians attending a postgraduate course is gastroenterology that during an eighteen-month period, forty-one university students were found to have stomach ulcers.

The average age of the patients was twenty-three, while the youngest was seventeen. All but two were men.

The finding may open new doors for the diagnosis and treatment of both gastric and duodenal ulcers.

Ulcers are characterized by a long history of indigestion and stomach trouble. In these forty-one cases, the patients often had no previous difficulty.

They all responded rapidly to treatment and in one case, the acute stage lasted only six days. This quick recovery made us wonder how often an ulcer, in its early stages, may be overlooked by both the patient and his physician?

Early diagnosis and proper education of the patient can minimize the number and severity of recurrences in later life, and can reduce the possibilities of complications.

American Medical Association

Actions of the House of Delegates

Twelfth Clinical Meeting

Health care of the aged, the report of the AMA Commission on Medical Care Plans, osteopathy, expansion of medical education facilities, the Association's administrative changes, the report of the Committee to Study AMA Objectives and Basic Programs, and voluntary health organization fund raising were among the wide variety of issues considered by the House of Delegates of the American Medical Association's Twelfth Clinical Meeting held December 2-5 in Minneapolis, Minnesota.

The scientific meetings were all held in the Municipal Auditorium and congregated into four procedures, panel discussions, papers, exhibits, from Michigan contributors included the following (all are M.D.'s unless otherwise specified):

John M. Weller, Ann Arbor—Participant, Panel Discussion on "Acute Renal Shutdown"; W. E. Redfern, W. L. Lowrie, M. A. Block and Brock E. Brush, Detroit—"The Care and Treatment of Diabetic Feet"; Russell N. De Jong, Ann Arbor—Participant, Panel Discussion on "Stroke: Hemorrhagem Thrombosis, Spasm?"; John W. Sigler, Detroit—Round Table on "Common Problems in Managing the Arthritic Patient"; William H. Beierwaltes, Ann Arbor—Participant, Panel Discussion on "Diagnosis and Treatment of Thyroid Disease"; William J. Schull, Ann Arbor—Participant, Panel Discussion on "Hazard Versus Diagnostic Yield in Radiologic Procedures."

Franklin V. Wade, Flint—Assistant in Presenting Exhibit on "Fractures Encountered by the Front Seat Passenger in a Crash"; Hubert C. Peltier, Harold L. Upjohn, Robert O. Stafford, and Robert H. Levin, The Upjohn Company, Kalamazoo—Scientific Exhibit, "The Improvement of Steroid Preparations"; W. L. Lowrie, H. L. Johnson, W. E. Redfern, J. B. Bryan, F. W. Whitehouse, and E. A. Kish, Henry Ford Hospital, Detroit—Scientific Exhibit, "Preserving the Diabetic Foot from a Triple Threat"; Donald R. Korst, VA Hospital, and Ronald C. Bishop, Simpson Memorial Institute, University School of Medicine, Ann Arbor—Scientific Exhibit, "Oral Iron Absorption and Iron Depleted Subjects: A Radioisotope Method Using Fe-59"; Frank Cox Jr., E. A. Timm, E. L. Quinn, J. M. Colville and I. William McLean, Henry Ford Hospital, Detroit — Scientific Exhibit, "Adenovirus-A-Serologic Study."

Several Michigan men had somewhat important positions to fill and services to render. William Bromme again served as delegate in place of W. D. Barrett who could not attend. Robert L. Novy, as a member of the Council on Medical Service, had many duties to perform in helping to prepare the reports and resolutions from that Council, including endless hours in writing, rewriting, consulting and finally arriving at the statement of Principles of the American Medical Association in regard to care of the needy aged. Grover C. Penberthy, Detroit, served as he has for several years, as delegate from the Section on Surgery, General and Abdominal.

The reference committees from the House of Delegates are the groups in which the most important work is done. Resolutions and reports are referred to the reference committees which meet in specified places at specified but long continued hours for the purpose of hearing all discussion and arguments pro and con for the measure under consideration. After this, the committee in executive session determines what report to recommend to the House.

John S. DeTar served as chairman of the Reference Committee on Medical Service, to which were referred many most imporant problems, including the care of the aging adult citizen. Grover C. Penberthy was chairman of the Reference Committee on Medical Education and Hospitals, to which was referred the resolution on osteopathic status and the various resolutions on payment to house physicians. Both these reports were masterfully done, concise and definite, with specific recommendations.

William A. Hyland, Grand Rapids, was chairman of the Michigan delegation and in almost constant conference with various interests, committees and councils. He was much occupied with the administrative program developing from the Hyland committee report on the Heller report presented to the House a year ago at Philadelphia and last summer at San Francisco.

Lonnie A. Coffin, M.D., of Farmington, Iowa, was named the 1958 General Practitioner of the Year for his outstanding contributions to the health and civic affairs of his home community. Dr. Coffin, who is the first Iowan to receive the annual GP award, accepted his gold medal on behalf of "all the men who have dedicated their lives to the general practice of medicine."

Speaking at the Tuesday opening session of the House, Gunnar Gundersen, M.D., of La Crosse, Wisconsin, AMA President, called upon the medical profession to exert leadership and imagination in meeting the problems of these changing times. Urging practical actions to solve medico-economic challenges, Dr. Gundersen declared that "the time has passed for policies based on generalities, platitudes and flag-waving." He also suggested that the Association offer support and co-operation to proposals for an International Medical Year.

Governor Orville L. Freeman of Minnesota, who also addressed the opening session, asked for "the help of the leaders of the medical profession in working out a program that will most adequately meet the needs of our older citizens for health care and services of the highest quality."

With half a day still to go, total registration Thursday evening had reached 4,880, including 2,870 physicians.

Health Care of the Aged

Responding to Dr. Gundersen's call for action and Governor Freeman's plea for help in meeting the health care needs of the aged, the House of Delegates adopted the following proposal submitted by the Council on Medical Service and endorsed by the Board of Trustees:

"For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health insurance or prepayemnt plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens.

"Therefore, the Council on Medical Service recommends to the House of Delegates the adoption of the following proposal: That the American Medical Association, the constituent and component medical societies, as well as physicians everywhere, expediate the development of an effective voluntary health insurance or prepayment program for the group over 65 with modest resources or low family income; that physicians agree to accept a level of compensation for medical services rendered to this group which will permit the development of such insurance and prepayment plans at a reduced premium rate."

In order to effect the immediate implementation of such a program, the House directed that copies of the proposal be distributed to medical society approved plans, including Blue Shield and Private insurance programs, requesting their co-operation.

Commission on Medical Care Plans

The long-awaited report of the Commission on Medical Care Plans, appointed at the 1954 Clinical Meeting in Miami, was discussed for two hours at a reference committee hearing, but the House decided to defer action until the June, 1959, meeting. In so doing, the delegates adopted this statement:

"We respectfully suggest to the constituent associations reviewing the report in the interim, that their attitude regarding the report will be clarified if they arrive at some decisions in regard to the following basic points:

"1. *Free Choice of Physician.*—Acknowledging the importance of free choice of physician, is this concept to be considered a fundamental principle, incontrovertible, unalterable, and essential to good medical care without qualification?

"2. *Closed Panel Systems*—What is or will be your attitude regarding physician participation in those systems of medical care which restrict free choice of physician?

"These suggestions acknowledge that the policy of the American Medical Association to encourage and support the highest quality of medical care for all patients remains unchanged. They question, however, whether attitudes toward the free choice of physician and the closed panel system may be undergoing evolutionary change."

The House recommended that the Board of Trustees invite the constituent associations to forward their replies to these questions to the Executive Vice President sixty days in advance of the June, 1959, meeting.

Osteopathy

Considerable discussion centered on a resolution which would have recognized that constituent medical associations have the right to establish the relationship of the medical profession to the osteopathic profession within their respective states. The House decided, however, that the resolution in question did not offer the appropriate solution to the osteopathic problem. Instead, the delegates requested the Judicial Council to review past pronouncements of the House on osteopathy and the status of the laws of the various states in this regard. The Council was asked to present its report and recommendations at the June, 1959, meeting. The House "noted with favor that the American Osteopathic Association has amended its objectives as stated in its constitution by deleting reference to the cultism of Andrew J. Still."

Medical Education

The House approved a statement by the Council on Medical Education and Hospitals supporting the development of additional facilities for basic medical education, and it urged the entire profession to give that policy strong support in order to correct misinterpretations of the Association's viewpoint regarding the supply of physicians.

"American medicine," the statement points out, "fully recognizes the needs being brought about by the increasing population, social and economic trends, and the changing dimensions of medical knowledge and its application." Urging careful analysis of those needs, the statement says that existing medical schools should consider the possibility of increasing their enrollments and developing new facilities. It also declares that American medicine has the responsibility to encourage the creation of new four-year medical schools and two-year basic science programs by institutions of higher education which can provide the desirable setting.

AMA Administrative Structure

A Board of Trustees report on the administrative structure of the Association was approved by the House, which termed the reorganization of the headquarters staff as a long and important step in the right direction. The report informed the House that the Chicago staff has been divided into the following seven divisions: Business Division, Law

Division, Communications Division, Field Division, Division of Scientific Publications, Division of Socio-Economic Activities and Division of Scientific Activities. The latter two are still in the process of development and are temporarily under the direction of the Assistant Executive Vice President. The Board also reported that the Committee on Legislation has been renamed the Council on Legislation Activities, with the Director of the Law Division as Council secretary. This new council will undertake an enlarged, strengthened legislative program, closely co-ordinated with the activities of the new field staff and the Washington Office. The latter also has been reorganized, with overall direction coming from Chicago.

AMA Objectives and Basic Programs

The House received and commended the report of the Committee to Study AMA Objectives and Basic Programs, which it said may be a significant milepost in the Association's history. In approving one of the committee's recommendations, the House referred to the Council on Constitution and Bylaws the following suggested amendment of Article II of the Constitution:

"The objectives of the Association are to promote the science and art of medicine and the betterment of public health and an understanding of the socio-economic conditions which will facilitate the attainment of these objectives."

The House also recommended that the Board of Trustees establish a mechanism which will assume the responsibility for promoting active liaison with each national medical society. "In the scientific fields," the House declared, "the role of the AMA should be primarily that of leadership, but every endeavor should be made to bring about coordination of the special fields of scientific interest of the other national medical organizations." The delegates also approved a recommendation that the Board of Trustees give serious consideration to opening the publications of the Association to a free and open discussion of socio-economic problems applicable to medicine.

Fund Raising

Once again considering fund raising problems which have arisen since development of the concept of united community effort, the House passed a resolution which pointed out that the action taken last June in San Francisco has been interpreted by some as disapproving the inclusion of voluntary health agencies in United Fund drives. It then stated that "the American Medical Association neither approves nor disapproves of the inclusion of voluntary health agencies in United Fund drives." The resolution also requested the Board of Trustees to arrange a top-level conference with the voluntary health agencies, the United Funds and other parties interested in the raising of funds for health causes, with a view toward resolving misinterpretations and other difficulties in this area.

Miscellaneous Actions

In dealing with a wide variety of other subjects, the House also:

. . Took notice of the recent restrictive changes in the *Medicare* program; expressed regret at the substitution of federal facilities for private care in the areas mentioned, and urged the Association to encourage the re-establishment of services under the free choice principle to accomplish the original intent of the act.

. . Recommended that the Social Security Act be amended by Congress to permit states to combine the present four *Public Assistance* medical programs into a single medical program, administered by a single agency and making available uniformity of services to all eligible Public Assistance recipients in the state.

. . Authorized the Council on Medical Service to sponsor at the earliest practicable date a *Congress on Prepaid Health Insurance.*

. . Approved a plan to develop *"Buyers' Guides"* which will be sent to physicians to help their patients analyze the merits of available health insurance programs.

. . Approved a Bylaw amendment which will allow *dues exemptions* for interns and residents serving in training programs approved by the Council on Medical Education and Hospitals.

. . Called to the attention of all individuals or institutions responsible for *intern and resident* training that medical services provided to patients in hospitals are the responsibility of duly licensed physicians.

. . Encouraged the voluntary registration of the *paramedical personnel* who assist physicians, but opposed the extension of governmental licensure and governmental registration at this time.

. . Heartily approved and lauded the purpose, content and format of *The AMA News* and recommended continuance of the publication under its present and established policies.

. . Agreed with the Committee on Medical Practices that *relative value studies* should be conducted by each constituent medical association but not on a national or regional basis by the AMA.

. . Urged each constituent society to establish a committee on *rehabilitation* to carry out activities recommended by the Board of Trustees.

(Continued on Page 109)

Addictions to Alcohol, Narcotics and Barbiturates Among Physicians

NARCOTIC ANALGESICS AND THEIR ADDICTIVE PROPERTIES

The threat of narcotic addiction is an ever-present problem to the physician administering or prescribing such drugs. It becomes doubly dangerous when the physician, through self-administration of these potentially addicting drugs, unwittingly becomes addicted himself.

The Michigan State Board of Registration in Medicine is concerned over the considerable increase in narcotic addiction among doctors in Michigan. Several doctors have appeared before the Board during the past several years because of addiction to alcohol, narcotics and barbiturates. This serious situation is the result of: (a) a widespread lack of appreciation of the addicting properties of these new narcotic drugs; (b) publicity given to early over-optimistic claims that the synthetic analgesics were non-addictive; and (c) usual lag in appearance of clinical reports attesting to their ability to cause addiction.

It is our desire to alert the physicians in Michigan to this serious problem and to acquaint them with the relative addicting properties of some of the narcotic analgesics. Protect yourself, your fellow physicians, your family and your patients by knowing the facts!

Classification and Comparison of Addictive Narcotics

The narcotic analgesics belong to two groups:

1. The Opiate Alkaloids: such as morphine and codeine and their synthetic derivatives. Very closely related chemically.
   (a) Morphine derivatives:
      (1) Heroin (1910)
      (2) Dionin or Ethylmorphine (1915)
      (3) Dilaudid (1926)
      (4) Metopon (1946)
      (5) Dromoran (1948)
   (b) Methadone (Dolophine) (1948)
      (1) Dihydrocodeinone (Dicodid, 1930, Hycodan, 1940)
      (2) Dihydrohydroxycodeinone (Percodan, 1945) (Nucodan, 1948)
2. The Synthetic Analgesics
   (a) Demerol (1940)
   (b) Methadone (Dolophine) (1948)
   (c) Nisentil (1950)

Just what particular actions or effects of a narcotic analgesic are responsible for the development of addiction are unknown. It is true, however, that those narcotics which have a short-lasting duration of analgesic effect are more likely to become addicting, so that a comparison may be made on this basis as has been done here.

Members of the Michigan State Medical Society

Dear Doctor:

The Board wishes to inform you concerning a problem which has come to our attention frequently during the past several years. This problem concerns addiction to alcohol, narcotics and barbiturates among the physicians. The Board does not believe that you, as a licentiate of the Board, fully realize the seriousness of the problem.

There has been an increase in the number of revocation hearings conducted by this Board over the past few years which has been based on alcohol, narcotic and barbiturate violations on the part of licentiates. When a licentiate has appeared before the Board, a very firm stand has been taken in the matter of addiction. The license of the individual has been invariably revoked or at least suspended for a period of time.

We wish to emphasize the fact that this Board is primarily concerned with its ability to render to the public and the licentiates the best possible service. We believe with your help and co-operation in this field that progress can be made in eliminating to some degree the problem of addiction of the physician and the patient.

A. Doctors of medicine should conform to all state and Federal narcotic regulations. (A copy of the same is attached).

B. Physicians should know the addictive properties of the various narcotic drugs, also that they be cognizant of the habit forming characteristics of the amphetamines and barbiturates. (A copy of the same is attached).

C. Support programs endeavoring to prevent and cure addiction.

D. If you observe a fellow physician acting as if he might be subject to the use of narcotics, other drugs or alcohol discuss the matter with physicians who are close to him and determine what steps should be taken to assist this individual in seeking the proper medical care.

This problem may seem like it is a distant one, as far as you personally are concerned. The Board believes this is a serious problem. We wish to thank you for your time and trust you will co-operate in this matter so important to everyone concerned.

Sincerely yours,
MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE
E. C. SWENSON, M.D., *Executive Secretary*

In the text matter the narcotics are arranged under their classification as synthetic or opium derivatives and are listed approximately according to their relative addicting properties. To support this classification, references are cited at the end of this article.

Narcotics and Their Addictive Properties

I. Synthetic Narcotic Drugs:
   1. Meperidine Hydrochloride, U.S.P. XIV Demerol, N.N.R. (Winthrop-Stearns and George E. Breon). Aver. Dose: 50-100 mgs. orally or hypo.

   Addiction dangers:
   (a) Analgesic effect only 2-3 hours; frequent medication required.

(b) Few side-reactions; feeling of mild elation and well-being.
(c) Rapid condition-reflex, tolerance, and dependence develops, leading to larger doses, greater tolerance, and definite addiction.
(d) Doses of 50-100 mgm., orally or by hypo, 4 or more times daily, can produce addiction in cases of chronic pain or opiate habituation, in 2-3 weeks.
(e) Considered by some authorities as addict-forming as heroin.

2. Methadone Hydrochloride, N.N.R. Dolophine—
—(Lilly); Adanon H Cl—(Winthrop-Stearns).
Aver. Dose: 10 mgs. oral or hypo.

Addiction dangers:
(a) Analgesic effect of 4-5 hours.
(b) Less euphoria than M.S.
(c) Probably the least addicting synthetic narcotic.
(d) Doses of 10 mgm., orally or by hypo, every 4 hours, 4 times daily, produce tolerance and addiction in about 6 weeks.
(e) Less addicting than Morphine or Demerol, but more so than Codeine.

3. Nisentil H Cl, N.N.R. (Hoffmann-LaRoche). Aver. Dose: 40 mgm. in 1 cc. ampuls (hypo only).

Addiction dangers:
(a) Short-lasting analgesic 1-2 hours.
(b) Used mainly during labor.
(c) Restricted use precludes it from being a narcotic problem.

II. Opium Derivatives and New Morphine and Codeine Substitutes: (In order of addictive properties).

1. Dihydromorphinone Hydrochloride, U.S.P. Dilaudid (Bilhuber-Knoll).
(a) Analgesic action of 3-4 hours at best.
(b) More rapidly addicting than Morphine.
(c) Doses of 1/16 gr. (4 mgm.) 4-5 times daily produce rapid addiction.
(d) Sl. lower incidence side effects but more euphoric than morphine.
Best used in chronic pain or the terminal carcinoma patient when M.S. is no longer effective in ½ gr. (30 mgm.) doses, or where less objectionable side effects are sought.

2. Morphine
(a) Less addictive than dilaudid.
(b) Analgesia lasts 5 hours.
(c) Tolerance develops rapidly.
(d) Oral use—too many side effects.

3. Methorphinan Dromoran (Hoffmann-La-Roche). Aver. Dose: 5 mgms. Two forms are now in use, the dldromoran and the newly introduced 1-dromoran.
(a) Less addictive than morphine.
(b) Long-lasting analgesia—5-6 hours.
(c) Few undesirable side effects.
(d) Tolerance and addiction develop slowly in chronic pain patients.
(e) No cases of "primary" addiction yet seen.

4. Metopon, N.N.R. (Parke, Davis & Sharpe & Dohme). Aver. Dose: 6 mgms. (Oral Capsule only).
(a) About similar to or less addictive than Dromoran.
(b) Available only in capsule form.
(c) Tolerance develops slowly and is rapidly broken upon cessation of drug for 1-2 days.
(d) Low incidence side effects and euphoria.

5. Codeine Derivatives.
(A) Dihydrocodeinone.
Dihydrocodeinone Bitartrate, N.N.R.
Hycodin—(Endo).
Dicodid—(Bilhuber-Knoll).
Aver. Dose: 4 mgs. (for cough); 10 mgs. (for pain).
(a) N.N.R. says on basis of weight, more addicting than codeine.
(b) No advantages over codeine as cough suppresant.
(B) Dihydro-Hydroxy Codeinones
Percodan—(Endo). Aver. Dose: 1-2 Tabs. 3-4x/day.
(a) More addictive than similar ASA Cmpd. with codeine grs. ½.
(b) Includes homotropine as a mild antispasmodic and anti-emetic agent.
(C) Nucodan—(Endo).
(a) Perhaps sl. less addictive than ASA Cmpd. No. 3.
(b) Contains metrazol as a mild respiratory stimulant.

Selected References

1. *(Codeine)* Gruber, C. M. and Nelson, G. M.: Codeine addiction. Ann. Int. Med., 29:151 (July) 1948.
2. *(Demerol)* Isbell, H.: The newer analgesic drugs: their use and abuse. Ann. Int. Med., 29:1003 (Dec.) 1948.
3. *Dolophine (Methadone)* Isbell, H., et al: Narcotics, tolerance and addiction liability of methadone. J.A.M.A., 135:888 (Dec. 6) 1947.
4. *(Dromoran)* Fraser, H. F. and Isbell, H.: Addiction liabilities of morphinan and dihydrocodeinone. J. Pharm. Exp. Thera., 100:128 (Oct.) 1950.

Compiled jointly by the Liaison Committee of the Michigan State Board of Pharmacy and the Michigan State Medical Society at the request of the Michigan State Board of Registration in Medicine.

DIGEST OF FEDERAL AND STATE LAWS AND REGULATIONS RELATING TO NARCOTICS AND BARBITURATES

Recommendation.—The responsibility for the prescribing and dispension of narcotics, drugs and barbiturates is upon the physician, but a corresponding responsibility rests with the pharmacist who fills the prescription. An understanding of mutual problems will result in more improved medical care.

Narcotics

I. *Prescription*
A. Must be written in ink, or indelible pencil, or, if typewritten, must be signed in ink or indelible pencil.
B. Must contain:
1. Name and address of physician and designation of healing art.
2. Physician's narcotics registry number.
3. Name and address of patient; if transient or traveler, immediate local address at the time of prescribing.

4. (a) Name of narcotic.
   (b) Weight and quantity.
   (c) Followed by directions for use.
5. Date and signature as of date issued.

II. *Exempt Narcotic Preparations*
- A. Refilling:
  1. Michigan law:
     (a) Those containing no more than one grain of codeine or its salts in one avordupois ounce may be refilled by the pharmacist with the sanction of the physician. All other narcotics as listed by the Federal law are to be filled only once from the original written prescription.

III. *Office Supply*
- A. Official order form must be employed. It is illegal to procure by writing prescription for hypothetical person or for "self."

IV. *Office Record*
- A. Physician:
  1. Must for two years keep a record of all narcotics dispensed and retain duplicate order forms.
  2. Record must contain:
     (a) Name of drug.
     (b) Quantity.
     (c) Name and address of patient; as above.
     (d) Date of issuance.
  3. Exception:
     (a) No record required when drug is personally administered by physician.
     (b) Pharmacist:
        (1) Must retain all prescriptions and duplicate order forms for two years.

V. *Lawful Prescribing*
- A. Narcotics are to be prescribed only for legitimate medicinal purposes. They may be also prescribed in any amount in the case of incurable diseases according to accepted medical practice.

VI. *Unlawful Prescribing and Dispensing*
- A. Addicts:
  1. It is illegal to prescribe or dispense narcotics to gratify addiction.
- B. Telephone orders:
  1. It is illegal to prescribe or receive prescription for narcotics over the telephone unless the pharmacist receives the signed prescription before or at the time of delivery of the medication.

VII. *Prescription Pads*
- A. It is suggested that these should never be left where they can be stolen. Addicts are on the lookout for loose pads which enable them to forge prescriptions.

Barbiturates

(Michigan Law)

I. *Prescription*
- A. It is unlawful for the pharmacist to dispense any drug commonly referred to as barbiturates in any manner other than upon written order.
- B. Must contain:
  1. Follow substantially requirements as to narcotics prescriptions.

II. *Exempt Barbiturates Preparations*
- A. Refilling:
  1. Drug phenobarbital and preparations containing phenobarbital must be dispensed originally on prescription but may be refilled provided caution is used.
  2. All other barbiturates are to be filled only once from the original written prescription.

III. *Office Record*
- A. Pharmacist:
  1. Must retain all prescriptions for two years.
  2. Must maintain a record of number and quantity of refillings of phenobarbital prescriptions.

IV. *Unlawful Prescribing and Dispensing*
- A. Telephone orders:
  1. Written order must be retained by pharmacist for all barbiturates dispensed.

(Compiled by Michigan State Board of Pharmacy at request of Michigan State Board of Registration in Medicine)

ACTIONS OF AMA HOUSE OF DELEGATES

(Continued from Page 106)

. . Called for continued activity at all levels to stimulate the development of effective *poliomyelitis inoculation programs.*

. . Suggested that the Association take immediate steps toward developing a plan whereby reserve medical units and individuals not immediately involved in military operations could be used to supplement *civil defense* operations.

. . Expressed gratitude and appreciation for the long years of devoted service by *Dr. Austin Smith,* who has resigned as Editor of *The Journal of the American Medical Association.*

At the opening session, six state medical societies contributed a total of almost $250,000 to the American Medical Education Foundation. The gifts were: California, $150,305.75; Indiana, $35,110; New Jersey, $25,000; New York, $19,608; Utah, $9,977.50 and Arizona, $8,657.50. In addition, the American Medical Association announced a contribution of $100,000 to the Foundation.

It also was announced on the opening day of the meeting that W. Linwood Ball, M.D., of Richmond, Virginia, AMA Vice President, had been appointed to the Board of Trustees to fill the vacancy caused by the recent death of Warren Furey, M.D., of Chicago. Dr. Ball, who will serve on the Board until next June, said he will not be a candidate to succeed himself.

For portions of this report, we are indebted to F. J. L. Blasingame, M.D., Executive Vice President, American Medical Association.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

HOW HEALTH ADDS UP

Highlights of 1959-60 Budget Request

Public health in Michigan has established a good record, stretching back over eighty-five years. However, our immediate concern is with our failures and what can be done about them. The following are some highlights from the Michigan Department of Health Budget Request for 1959-60—six proposals signed out which would tackle some of our worst shortcomings.

Crippling Polio

A survey made by local health departments shows protection for school children ranging from 38 per cent in one area to 96 per cent in another. Protection for adults ranges from 11 to 28 per cent. An over-all estimate:

Protection with Three Doses of Vaccine

	Per Cent
Age through Fours Years	43%
Five through Fourteen	75%
Fifteen through Forty	20%

We now know we need 80 per cent to 90 per cent protection. We need a renewed campaign to make polio immunization readily available through private physicians and local health clinics—the same pattern which has worked so well for so many years against other diseases. We recommend:

Immediate—$400,000 appropriation to provide polio vaccine for use through physicians and local public health clinics before the next polio season starts in mid-June. This vaccine to be used to immunize pre-school children —the high risk group.

Next Year—$400,000 appropriation to buy polio vaccine in 1959-60, with continued emphasis on immunizing children. If a quadruple vaccine becomes possible, these funds to be used as needed to buy polio vaccine for combination with products we now produce.

Sanitation

People have broken down old sanitation safeguards. They have pushed out farther than sanitation facilities reach. Health department services are not keeping pace. We are behind in supervising water supplies—in assuring safe sewage treatment—in supervising trailer parks. As a minimum to help meet the need, we recommend: Five added engineers, plus travel: $39,679.

Old and Sick Number 18,000

Many homes and institutions for the sick and aged offer good care, support further improvement and fully co-operate with community and state groups. Some offer bleak surroundings with storage described as care. A few are intolerable. Department responsibilities include helping local departments supervise homes and directly approving nursing care standards in 130 homes, sanitation facilities in 149 homes and plans in 277 homes. The problem is a big one and it is growing. Minimum needed: $48,265.

Long-Term Illness

Long-term illness confines increasing numbers to homebound and bedfast worlds. Many times this could be avoided or postponed. We propose that specialists be hired to conduct patient evaluation clinics upon the request of physicians and local health departments. This would help introduce new care techniques, help cut expensive hospital bills for taxpayers. Also needed is better understanding of chronic diseases, the importance of early detection and the returns from low-cost home nursing care. Minimum required: $23,146.

Radiation and Other Industrial Dangers

Under recently adopted radiation regulations, the Department is called upon to help health professions and industry safeguard some 10,000 x-ray machines and to give supervision to the use of radioactive substances and nuclear reactors. In addition there are air pollution hazards, dangers from poisonous sprays, explosive plastics and other chemical and industrial processes. Available manpower cannot keep up with the work needed to protect against such hazards. Minimum needed: 2 added engineers: $17,200.

Local Nursing and Sanitation Services

Strong local health departments are the core of effective public health practice. Today many departments are crippled by lack of funds. They must be reinforced if we are to meet public health needs. A Citizens Community Health Advisory Committee, after intensive evaluation, recommended: "$500,000 for state assistance for local health departments for 1959-60 instead of $319,500 provided this year, and further added funds be made available to areas of greatest financial need." Proposed distribution plan:

Basic Grant—$315,000 to provide $4,500 per county for each of the 70 counties contributing to support of a county or multi-county health department—same per county as this year.

Special Need—$185,000 to 48 counties sharing in support of multi-county health departments. Grant would not exceed an added $4,500 in any county and would be based upon work programs in basic sanitation or nursing.

All but four of the forty-eight counties are in the upper part of Michigan. There are only twenty-eight sanitarians and seventy-three nurses serving a population of over 800,000 plus thousands of tourists in this large area. The request is based upon getting practical basic

(Continued on Page 130)

In smooth muscle spasm...



• controls *stress*

• relieves *distress*

Pro-Banthīne® with Dartal®

Pro-Banthīne—
unexcelled for relief of cholinergic spasm—
has been combined with
Dartal—
new, well-tolerated agent for stabilizing emotions—
to provide you with
Pro-Banthīne with Dartal—
for more specific control of functional gastrointestinal disorders, especially those aggravated by emotional tension.

Specific Clinical Applications: Functional gastrointestinal disturbances, pylorospasm, peptic ulcer, gastritis, spastic colon (irritable bowel), biliary dyskinesia.

Dosage: One tablet three times a day.

Availability: Aqua-colored tablets containing 15 mg. of Pro-Banthīne (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride). G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

SPONTIN IN SERIOUS

A Special Report from Abbott to the Medical Profession on a Year's Clinical Experience with SPONTIN®

(Ristocetin, Abbott)

In a Spanish province, a patient lay dying of endocarditis. A short wave radio appeal for SPONTIN was intercepted by a Baltimore physician. The antibiotic was immediately flown to this faraway land, and 10 days later—the patient had recovered.

In Chicago, a moribund patient had been administered 18 combinations of 10 different antibiotics without success. Involved was a hospital-acquired staphylococcal pneumonia—plus complications. SPONTIN was substituted and the patient lived.

A five-week-old infant was critically ill with staphylococcal enteritis. Treatment failures included erythromycin and chloramphenicol. Three days of SPONTIN saved this life. The list is long and impressive and it grows daily.

Recently, a study[1] was made of serious and resistant staphylococcal infections reported to Abbott Laboratories. Many of these cases had serious complicating diseases—many were moribund, or almost so, at the time SPONTIN was started. Yet, out of the 160 staphylococcal cases studied, 93 were reported cured and 38 improved after the administration of SPONTIN.

Out of the total of 251 patients with severe infections caused by gram-positive or mixed organisms, 149 were reported cured and 53 others improved. And the record for pediatric practice was every bit as good.

Additionally, SPONTIN continues to exhibit exceptional bactericidal activity against coccal infections[2]. And, according to another study, SPONTIN provides successful short-term therapy in endocarditis[3].

901066

Only last October, at the Antibiotics Symposium in Washington, D. C., a panel of six leading antibiotic experts placed SPONTIN at the top of all other commercially-available antibiotics for treating serious staphylococcal infections. Also, six papers—all dealing with the effectiveness of ristocetin (SPONTIN®) in treating staphylococcal infections—were presented at the Symposium.

One of the most encouraging aspects of the year's literature on SPONTIN is the increasing testimony to its safety. As the months have passed and cases have accumulated by the hundreds, it has become apparent that careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals.

A recent report[4] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a [well tolerated] and potent agent to employ in the treatment of staphylococcal infections." And in another study, after successfully treating 28 patients with a variety of staphylococcal infections, the authors reported[5], "No serious complications were noted."

Few more dramatic records have been written in such a short space of time. SPONTIN has proved itself to be a good answer, perhaps the best answer at present, to the resistant staphylococcal problem—and of real value in other serious coccal infections. It may well be your answer when you're confronted with a serious infection.

Abbott

Say you saw it in the Journal of the Michigan State Medical Society

STAPHYLOCOCCAL INFECTIONS

Excerpts from Reports Read at the Antibiotics Symposium

Spontin In Treating Severe Respiratory Infections —"In 13 of 20 patients the results were excellent, with clinical response being evident within one to four days after institution of therapy. In three additional patients, there was some degree of improvement in pneumonic processes superimposed on tuberculosis in two cases and on pulmonary neoplasm in one. In all other cases, serious antecedent pathology undoubtedly influenced the negative or equivocal response to ristocetin therapy.[6]"

Spontin In Treating Staphylococcal Infections—After successfully treating 28 patients, the authors wrote, "Ristocetin or Spontin has proved to be bactericidal and bacteriostatic, particularly for the *Staphylococcus aureus,* which is often resistant to many other antibiotics.[5]"

Spontin In Treating Seven Difficult Cases — "Ristocetin has produced excellent results in eradicating, mitigating or preventing infection in seven selected difficult cases. Six of the seven cases involved *Staphylococcus aureus* which did not respond to chemotherapy with other antibiotics.[7]"

Spontin Blood Levels In Children — "Ristocetin was administered as a single intravenous injection of 12.5 milligrams per kilogram. This resulted in serum levels ranging from 1.3 to 10.6 mcg. after two hours with a gradual fall to a level of 0.7 mcg. per cubic centimeter or less after 12 hours.[8]"

Spontin In Treating Staphylococcal Pneumonia —"Ristocetin was used in the treatment of 24 patients with staphylococcal pneumonia, 17 of whom had failed to respond to previously administered antibiotics. Complete clearing of pneumonitis was obtained in 16 patients and significant improvement occurred in two others. Two patients died of pneumonia; four others succumbed to other lethal diseases.[9]"

Spontin In Treating Children and Adults — "Ristocetin completely controlled severe staphylococcal infections in 11 adults and six children who received adequate therapy.[10]"

1. Totals represent published reports and personal communications to Abbott Laboratories.
2. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
3. Romansky, M. J., and Holmes, R., Successful Short-Term Therapy of Enterococcal and Staphylococcal Endocarditis with Ristocetin—Seven Patients. Preliminary Report, Antibiotics Annual, 1957-58, p. 187.
4. J. A. M. A., 167:1584, July 26, 1958.
5. Bush, L. F., et al., The Use of Ristocetin (Spontin) in Staphylococcal Infections, In Press, Antibiotics Annual, 1958-59.
6. Billow, F. J., et al., Clinical Observations on Ristocetin—A Preliminary Report on its Efficacy and Toxicity in 20 Unselected Severe Respiratory Infections, In Press, Antibiotics Annual, 1958-59.
7. Miller, J. M., et al., Ristocetin in the Treatment of Seven Selected Difficult Cases, In Press, Antibiotics Annual, 1958-59.
8. Asay, L. D., et al., Ristocetin Serum Levels in Children, In Press, Antibiotics Annual, 1958-59.
9. Schumacher, L. R., et al., Experiences with Ristocetin in Staphylococcal Pneumonia: Observations in 23 Cases, In Press, Antibiotics Annual, 1958-59.
10. Terry, R. B., Ristocetin in Children and Adults, In Press, Antibiotics Annual, 1958-59.



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Mathew Alpern, Ph.D., Paul Ellen, Ph.D., and **Robert I. Goldsmith, M.D.,** Ann Arbor, are the authors of an article entitled "The Electrical Response of the Human Eye in Far-to-Near Accommodation," published in the AMA *Archives of Ophthalmology,* October, 1958.

Edward A. Wishropp, M.D., Detroit, is the author of an article entitled "Changing Trends in Pediatric Practice," presented before the Detroit Academy of Medicine, December, 1957, and published in *Harper Hospital Bulletin,* September-October, 1958.

Louis A. Schwartz, M.D., Detroit, is the author of an article entitled "Application of Psychosomatic Concepts by a Liaison Psychiatrist on a Medical Service," published in *Harper Hospital Bulletin,* September-October, 1958.

Ralph Johnson, M.D., Detroit, is the author of an article entitled "The Economic Advantages of Private Practice," published in *Harper Hospital Bulletin,* September-October, 1958.

Geoffrey Falkson, M.B., Ch.B. and **Boy Frame, M.D.,** Detroit, are the authors of an article entitled "Phosphate Diabetes," published in *Henry Ford Hospital Medical Bulletin,* September, 1958.

Thomas Baumgartner, M.D. and **J. Martin Miller, M.D.,** Detroit, are the authors of an article entitled "A Previously Unreported Effect of the Prolonged Administration of Desiccated Thyroid," published in *Henry Ford Hospital Medical Bulletin,* September, 1958.

John W. Ditzler, M.D., Detroit, is the author of an article entitled "Physiological Trespass in Anesthesia," published in *Henry Ford Hospital Medical Bulletin,* September, 1958.

Ernest W. Reynolds, Jr., M.D. and **Franklin D. Johnston, M.D.,** Ann Arbor, are the authors of an article entitled "The Management of the Cardiac Arrhythmias," published in *GP,* November, 1958.

Fred M. Davenport, M.D., is the author of an article entitled "Vaccination Against Respiratory Diseases Caused by Viruses," published in THE JOURNAL of the Michigan State Medical Society and condensed in *American Practitioner and Digest of Treatment,* November, 1958.

Harry Lamb, M.D., is the author of an article entitled "The Use of Nisentil in General Practice," published in THE JOURNAL of the Michigan State Medical Society, and condensed in *American Practitioner and Digest of Treatment,* November, 1958.

Gordon C. Brown, ScD., is the author of an article entitled "Current Investigations of Immunization Against Poliomyelitis," published in THE JOURNAL of the Michigan State Medical Society, and condensed in *American Practitioner and Digest of Treatment,* November, 1958.

* * *

Russell Meyers, M.D., one of the world's outstanding neurosurgeons, of the State University of Iowa Medical School, addressed students, faculty and guests of the University of Michigan Medical Center, November 13, on the subject of cerebral palsy. Dr. Meyers is a member of the Society of Neurological Surgeons, of the advisory council on neurosurgery of the American College of Surgeons, and of numerous medical and research associations. He is chairman of the Division of Neurosurgery at Iowa and has specialized in this field since graduating from Cornell Medical College in 1932.

Surgeons at the University of Michigan say there is widespread professional interest in Dr. Meyers' current research. He is seeking to control abnormal movements (such as those caused by cerebral palsy and Parkinson's disease) by using supersonics to create lesions in the brain. His talk was co-sponsored by the University of Michigan Medical Center and the United Cerebral Palsy Association of Michigan.

* * *

Approval of a proposed affiliation agreement between Wayne State University and Sinai Hospital has been given by the University's Board of Governors.

With the acceptance of Sinai as an affiliate, the College of Medicine now has three private Detroit Hospitals available for all phases of teaching, research, and patient care. The other private affiliates are Children's Hospital of Michigan and Harper Hospital. Grace and Detroit Memorial Hospitals have had departmental arrangements with the College of Medicine for several years.

Public hospitals used extensively by the College of Medicine for teaching are Detroit Receiving, Herman Kiefer, and the Veterans Administration Hospital in Dearborn.

Sinai is a 230-bed hospital located in northwest Detroit. Stipulations of the agreement will be maintained through a permanent standing committee appointed jointly.

* * *

Managing Breast Cancer.—Oral administration of hydrocortisone has proved successful in relieving some

women sufferers of advanced breast cancer, three surgeons from the University of Michigan Medical Center reported, November 20, 1958, before a meeting of the Western Surgical Society at the Mayo Clinic. George E. Block, M.D., one of the researchers, said that some patients who received at least 100 milligrams of the chemical each day underwent remissions.

Five women whose ovaries had previously been removed were studied. Four received relief ranging from three months to over thirteen months, in the form of "renewed vigor, increased appetite and a general sense of well being." Relief paralleled a drop in the excretion of estrogens normally created by the adrenal glands. The drop was brought about by hydrocortisone.

Heretofore, surgical removal of the adrenal glands was one of the chief methods of bringing relief to women with advanced breast cancer. However, the general condition of some patients prevents surgery. Hydrocortisone can then be used in the treatment of these patients to achieve similar results.

* * *

University of Michigan Theratron.—A powerful new charge of radioactive cobalt was loaded into the "Theratron" at the University of Michigan Medical Center in December. It contains 2,000 curies of radioactivity, equivalent in power to $75,000,000 worth of radium.

Specialists estimate the delicate transfer will take about six hours. The "hot" charge will replace the original source which has been in constant use for the past four years.

Charles S. Simons, Ph.D., of the Medical Center, will visit the Atomic Energy Commission's reactor at Oak Ridge, Tennessee, early this month to supervise the placement of the new source into a protective casing.

The piece of cobalt, about the size and weight of nine copper pennies, is so potent it must be guarded by two tons of lead during its trip to the University.

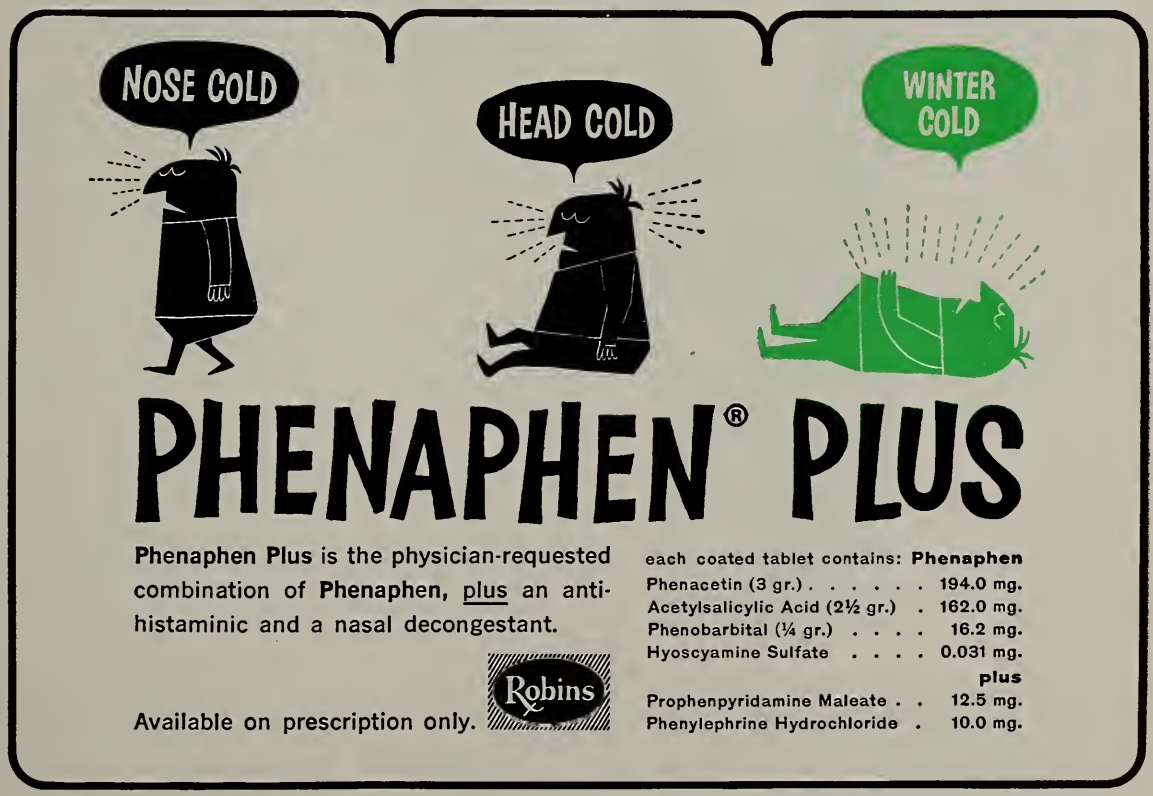
* * *

Symposium on Trauma.—More than 250 Michigan doctors attended the Seventh Annual Symposium on Trauma, December 3, at the Wayne County Medical Society's headquarters. Sponsors were Wayne State University College of Medicine and the Michigan Committee on Trauma of the American College of Surgeons.

Actual problem cases of hand, facial and knee injuries were moderated in the morning sessions by Joseph Posch, M.D., William Lange, M.D., and A. Jackson Day, M.D. Consultants for these sessions were: Michael Mason, M.D., Chicago, and Harold Woughter, M.D., Flint—hand injuries; Wallace Steffensen, M.D., Grand Rapids—facial injuries; Maurice Castle, M.D., and Joseph Fleming, M.D., Detroit—knee injuries.

Michael Mason, M.D., internationally known authority, spoke on "Tendon Injuries of the Hand."

Others who spoke in the afternoon sessions were Bernard Krakauer, M.D., Highland Park General Hospital; John Lichtwardt, M.D., Wayne County General Hos-



from intensive research...

Burdick



MODERN EQUIPMENT
for the
MEDICAL PROFESSION

ELECTROCARDIOGRAPHY — After 10 successful years in the manufacture of electrocardiographs, we are proud to present the new dual-speed EK-III. The higher speed facilitates the study of rapid electrocardiographic deflections.

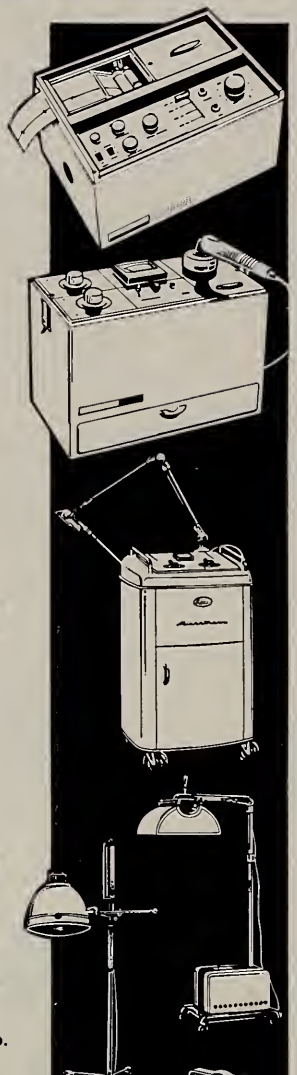
ULTRASOUND — The all-new UT-400 provides *continuous* ultrasonic energy or *pulsed* energy where a greater proportion of mechanical effect to thermal is indicated.

DIATHERMY—The Burdick line includes the MW-1 Microtherm® and the MF-49 short wave unit.

INFRARED THERAPY—The Zoalite series has become the standard of quality and performance for the hospital, physician's office and home use on prescription.

ULTRAVIOLET — Burdick hot quartz mercury arc lamps assure effective treatment with a minimum of exposure time.

CARDIAC MONITOR — The Telecor monitors the heart beat electrically with needle electrodes, or mechanically through a digital pulse pickup.



THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices:
NEW YORK • CHICAGO
ATLANTA • LOS ANGELES

Dealers in all principal cities

THE G. A. INGRAM COMPANY

4444 Woodward Avenue, Detroit 1, Michigan

pital; Gordon Simpson, M.D., Bon Secours Hospital; William Lange, M.D., Grace Hospital; Donald Economy, M.D., Providence Hospital and H. M. Frost, M.D. and Robert S. Knighton, Henry Ford Hospital.

* * *

Blood Analysis.—A machine which handles many of the monotonous tasks in laboratory blood testing is being used at the University of Michigan Medical Center. Chemical analysis of blood has long proved valuable in detecting many human diseases. Yet, until recently, this job has been one of the most tedious chores of laboratory technicians. The new machine automatically analyzes blood.

One girl can run 200 or more blood tests a day in the laboratory by machine, compared with three girls doing the same number of tests a day by hand. "Some tests can still be done better by hand," Professor Chandler said. "The machine has taken over the monotonous, routine work, leaving technicians time for handling the more complicated tests. It represents the beginning of what may be a very big change in chemical testing."

* * *

The Gordon B. Myers Award in Internal Medicine has been established at Wayne State University College of Medicine in recognition of Dr. Myers' inspiring leadership as Chairman of the Department of Medicine for over twenty years. The Award has been made possible by contributions from former residents and fellows who received postgraduate training under Dr. Myers. An Award of one hundred dollars and a scroll is to be made annually to the graduating senior who has distinguished himself above all others in his class in courses given by the Department of Medicine. The recipient of the award will be chosen by the chairman and the full-time faculty of the Department of Medicine.

* * *

The Fellows Medical Manufacturing Company, an old established institution, has moved its complete operation from New York City to Detroit, Michigan, after operating from Christopher Street, famous Greenwich Village landmark, for the last ninety-four years.

Taking over the complete operation, manufacturing and executive staff, under an agreement is Testagar & Company, Inc., pharmaceutical chemists of Detroit. Sid Heinrick, president of Testagar, who will also assume the posts of general manager and treasurer of the Fellows Company, stated that both companies will operate from 1354 W. Lafayette, Detroit, headquarters of Testagar & Company.

The Fellows Company, which started its medical products manufacturing back in 1866, is one of the country's oldest ethical pharmaceutical manufacturers. Its most famous product is Fellows Syrup, a worldwide tonic that doctors have been prescribing over the many years of Fellow's operation.

* * *

American Board of Obstetrics and Gynecology.—The next scheduled examinations (Part II), oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through 19, 1959. Formal notice of the exact

(Continued on Page 118)

in

URTICARIA

Family Physicians use



specific desensitization for

*lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patients, request the specific assortment of activated allergens which may include foods, epidermals, dusts, fungi, bacteria or pollens. A brief history of your patient will permit us to select the assortment your patient requires. This is a safe, simple, time-proven technique and comes to you complete with directions for use by your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing your patient for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction for each. Specific desensitization against irritants such as foods, epidermals, dust, fungi, bacteria and pollens immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For your patients that have already been skin tested by any means, simply send their list of offenders to the Allergy Division. Prompt 7-10 day service on all Rx's.

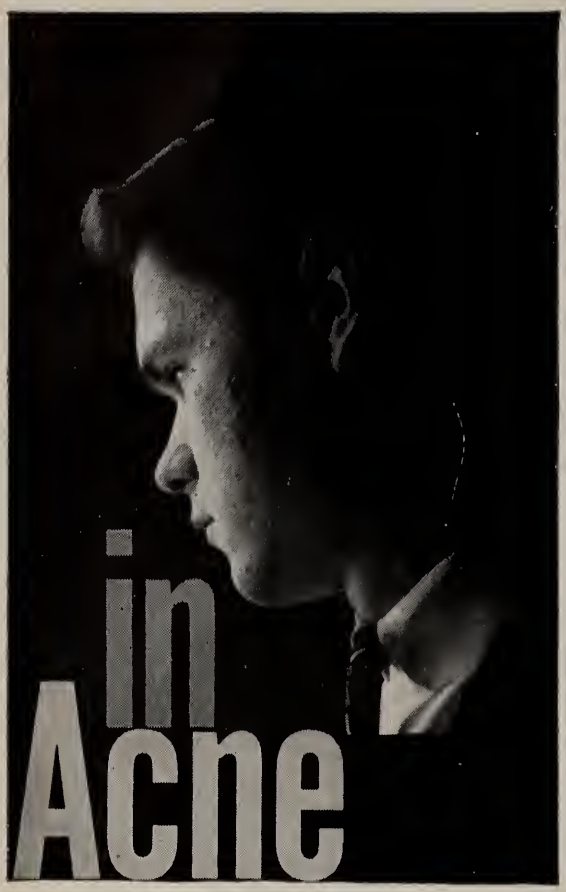
*write for free literature

FREE

For the physician
Complete HANDBOOK OF ALLERGY FOR THE GENERAL PRACTITIONER
For the nurse
ALLERGY TESTING, A MANUAL FOR THE NURSE ASSISTANT
Send for yours today

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

BARRY
since 1928



"No patient failed to improve."[1]

pHisoHex washing added to standard treatment in acne produced results that "...far excelled...results with the many measures usually advocated."[1]

pHisoHex maintains normal skin pH, cleans and degerms better than soap. In acne, it removes oil and virtually all skin bacteria *without scrubbing.*

For best results—four to six washings a day with pHisoHex will keep the acne area "surgically" clean.

1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

pHisoHex®

Sudsing nonalkaline antibacterial detergent—nonirritating, hypoallergenic. Contains 3% hexachlorophene.

Winthrop LABORATORIES New York 18, N. Y.

(Continued from Page 118)

City institution. Dr. Dundon comes to Traverse City State Hospital from Menninger Clinic, Topeka, Kansas.

* * *

The New York State Medical Society on December 1, announced the appointment of a new Executive Director of the Medical Society of the State of New York, Dr. Herbert T. Wagner of Bronxville, a forty-six-year-old physician who will assume part of the duties of W. P. Anderson, M.D., who will continue as Secretary, a position he has held for many years.

* * *

The American Federation of Government Employees, along with other union groups, is making its prime legislative goal for 1959, the enactment of medical care insurance for some five million Federal employees and dependents. The present strategy is for employees to demand that the government pay full premium for major medical or catastrophic expense coverage and assume at least 50 per cent of the cost of basic health insurance, including hospitalization benefits. Health insurance for these groups has been under consideration for several years through Blue Cross-Blue Shield, but this amount of government donations is new.

* * *

Norman F. Miller, M.D., chairman of the Department of Obstetrics and Gynecology at the University of Michigan Medical Center, served as visiting professor at Indiana University School of Medicine November 10-15, 1958.

Selected to open the Indiana University series of George A. Ball Visiting Professorships in Surgery, Dr. Miller participated in clinics, ward rounds, and conferences with the medical students and staff. He also was guest speaker at the Indianapolis Medical Society meeting, November 11.

The week-long visiting professorship was established five years ago as a memorial to a prominent Muncie industrialist and philanthropist. It has been held by a number of leading surgeons from the United States, England and Sweden.

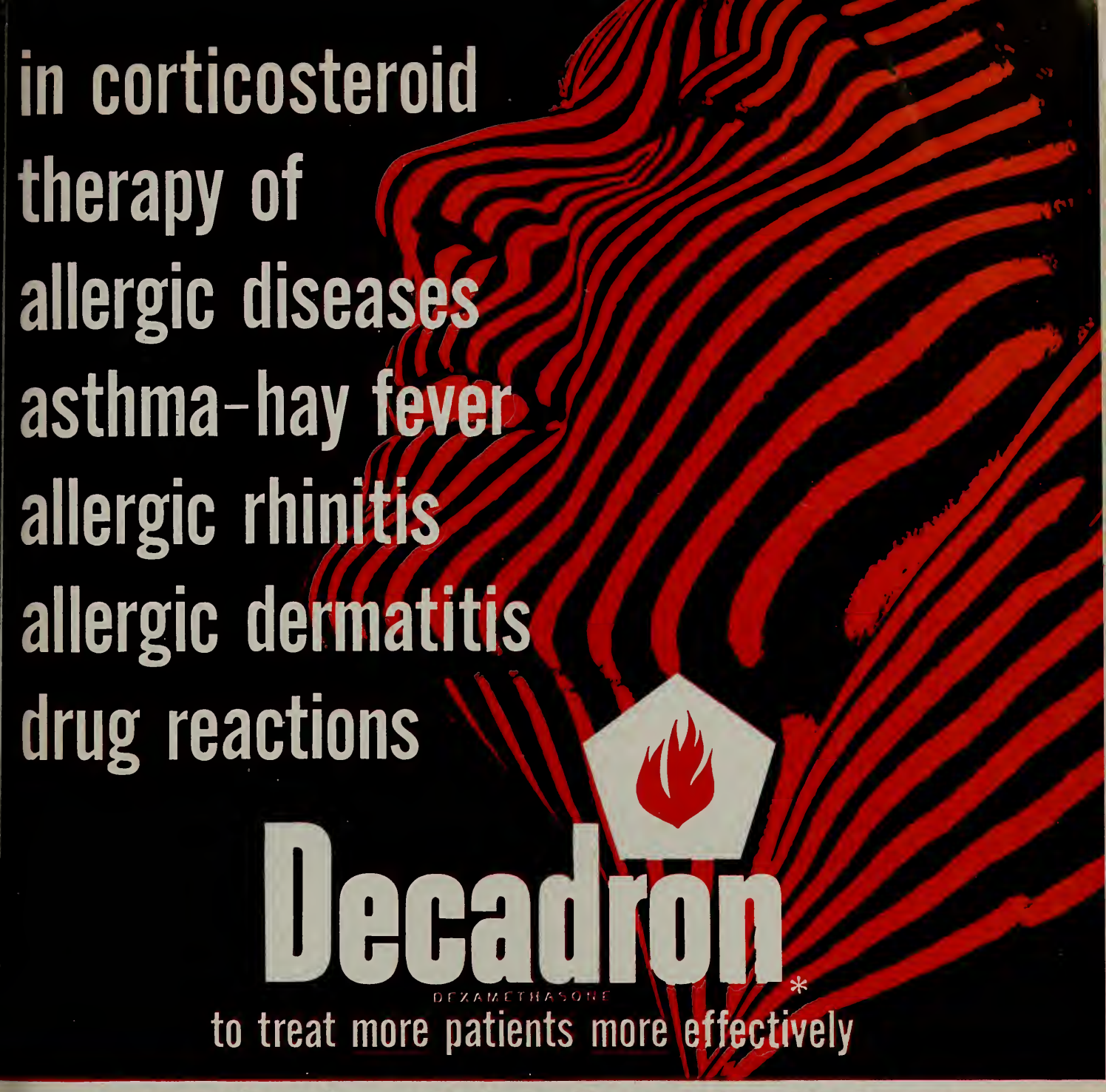
* * *

Kiwanis International unanimously adopted a resolution at its recent national convention in Chicago calling upon all of its clubs to actively support Red Cross and community blood banks as an "unparalleled field service." A Kiwanis Club in the Portland, Oregon, area has injected fun and fanfare into its action. Designated donors were "I've been tagged" cards to meetings. After giving blood, they are issued "I've been drained" cardboard pocket handkerchiefs.

* * *

One Man's Family.—A thrilling moment in the history of Muskegon (Michigan) County Chapter's blood center occurred when eight Becklin brothers came to replace blood used by the wife of one of them. The youngest was eighteen. In addition to two sisters-in-law and a brother-in-law, the Becklin brothers—Eugene, Ralph, Armand, James, Robert, Donald, Lloyd, and

(Continued on Page 122)



a new order of magnitude in therapeutic effectiveness
a new order of magnitude in margin of safety

Excellent and good-to-excellent results are reported† with DECADRON in nearly all of 362 patients with various allergic disorders, including a number of cases who had failed to respond to other corticosteroids. **No major reactions** were observed in these extensive clinical studies even after four months of continuous therapy—DECADRON produced no peptic ulcer, no diabetes, no significant hypertension, no sodium retention, no potassium depletion, no edema, no undesirable psychic reactions, and no unusual or new side effects. Less than five per cent of patients experienced minor reactions, none of which prevented continuing administration of DECADRON.

Moreover, several investigators report that side effects induced by previous corticosteroid therapy such as gastric intolerance, peripheral edema, headache, vertigo, muscle weakness, ecchymoses, flushing, sweating, moon facies, hypertension, hirsutism, and acne often disappeared during **therapy with DECADRON.** †Analysis of clinical reports.

Dosage: One 0.75 mg. tablet of DECADRON will replace one 4 mg. tablet of methylprednisolone or triamcinolone, one 5 mg. tablet of prednisone or prednisolone, one 20 mg. tablet of hydrocortisone, or one 25 mg. tablet of cortisone.

Detailed information on dosage and precautions is available to physicians on request.

Supplied: As 0.75 and 0.5 mg. scored, pentagon-shaped tablets in bottles of 100.

©1958 Merck & Co., Inc. *DECADRON is a trademark of Merck & Co., Inc.

MSD MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

(Continued from Page 120)

Charles—brought along two friends, thus making a total contribution of thirteen pints of lifesaving blood.

* * *

At the annual meeting of the Association of Medical Record Consultants in Boston, October 17, 1958, the Association arranged for its first scientific assembly to be held in Chicago in January, 1960. The meeting will be open to anyone interested in the consulting phases of medical record library science and will extend over a two-day period. The objectives of this group emphasizes research, education and the evaluation and appraisal both qualitatively and quantitatively of medical records in all types of medical facilities to the end that there may be an improvement in the quality and efficiency in medical record departments in such facilities.

* * *

M. K. Newman, M.D., Detroit, addressed the Eastern Section of the Detroit District Dental Society at the Whittier Hotel on December 1, 1958. His topic was "Occupational Neuromuscular Hazard in Relation to the Practice of Dentistry."

* * *

Educational Council for Foreign Medical Graduates.—The results of the first worldwide American Medical Qualification Examination held September 23 in thirty United States examination centers and thirty foreign centers were announced late in November. The foreign centers were established in Latin America, the Far East, the Middle East and Europe. Statistics reveal that of the 844 foreign-trained physicians taking the examination, 418 passed and will receive the educational certificate. These physicians are certified as possessing medical knowledge reasonably equivalent to that expected of graduates of approved American and Canadian medical schools and as having satisfactory facility in the English language. There were 226 candidates who came close to passing, in spite of language difficulties, to earn temporary certificates which will qualify them to study not more than two years as interns or residents in United States hospitals approved for internship and residency training. The American Medical Qualifications Examinations for 1959 are scheduled for February 17 and September 22. On March 25, 1958, the council administered the first examination of this type in seventeen stations in the United States, 51 per cent of the 300 applicants passing this initial test. Sponsoring organizations for the council are The Association of American Medical Colleges, the American Hospital Association, the American Medical Association and the Federation of State Medical Boards of the United States.

* * *

Henry Krystal, M.D., Assistant Clinical Director, Department of Psychiatry, Detroit Receiving Hospital, was this year's recipient of the Research Award from the Michigan Society of Neurology and Psychiatry, for his paper, "The Physiological Basis of the Treatment of Delirium Tremens," which he presented to the Society on November 21, 1957. Dr. Krystal was educated at Goethe University, Frankfurt-am-Main, Germany, and

(Continued on Page 124)

Annual Clinical Conference

CHICAGO MEDICAL SOCIETY

March 2, 3, 4, and 5, 1959

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics — **Teaching Demonstrations**

Medical Color Telecasts — **Instructional Courses**

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

FOR THE SLOW-TO-GROW CHILD B-VITAMIN SUPPORT...PLUS THE PROTEIN-POTENTIATING ACTION OF L-LYSINE..PLUS THE EXCEPTIONALLY WELL-TOLERATED HEMATINIC PERFORMANCE OF FERRIC PYRO-PHOSPHATE...AND THE IRON AND B_{12} ENHANCING ACTION OF SORBITOL IN DELICIOUS CHERRY FLAVORED

INCREMIN® WITH IRON SYRUP

Lysine–Vitamins

BUILDS IRON RESERVES

BOOSTS APPETITE

PROMOTES GROWTH

Each daily teaspoonful dose (5 cc.) contains:	
l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.
Alcohol	0.75%

Bottles of 4 and 16 fl. oz.

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 122)

received his B.S. and M.D. degrees at Wayne State University in Detroit. He received his psychiatric training at Detroit Receiving Hospital.

This award is an annual presentation for outstanding research in neurology, psychiatry, neurosurgery, neuropathology, neurophysiology, neuroanatomy, pharmacology pertaining to the nervous system, and other allied fields of interest. Competition is open to physicians living in Michigan, north-central Ohio in the area contiguous to the southern border of Michigan, and the Province of Ontario, Canada, in the area contiguous to the State of Michigan. Any desired information may be obtained by writing to Edgar A. Kahn, M.D., Chairman Research Award Committees, University Hospital, Ann Arbor, Michigan.

* * *



C. G. Child, III, M.D.

Charles Gardner Child, III, M.D., became Professor of Surgery and Chairman of the Department of Surgery at the University of Michigan on January 1, 1959.

Doctor Child came to Michigan from Tufts University School of Medicine, Boston, where he served as Professor of Surgery and Chairman of the Department since 1953. At Ann Arbor, he will fill the post left vacant by the retirement of Frederick A. Coller, M.D.

Doctor Child was born February 1, 1908, in New York City and received his medical degree from Cornell in 1934.

Welcome, Doctor Child!

* * *

The Chicago Ophthalmological Society will hold its Annual Clinical Conference on February 13-14, at the Drake Hotel in Chicago. For program and full information, write the Society (Mrs. Edward J. Ryan, Registrar), 1150 North Lorel Avenue, Chicago 51. (Registration fee $45.00).

* * *

The American College of Chest Physicians will present its Fourth Annual Postgraduate Course on Diseases of the Chest at the Sir Francis Drake Hotel, San Francisco, February 16-20, 1959. For program, write the College at 112 East Chestnut Street, Chicago 11.

* * *

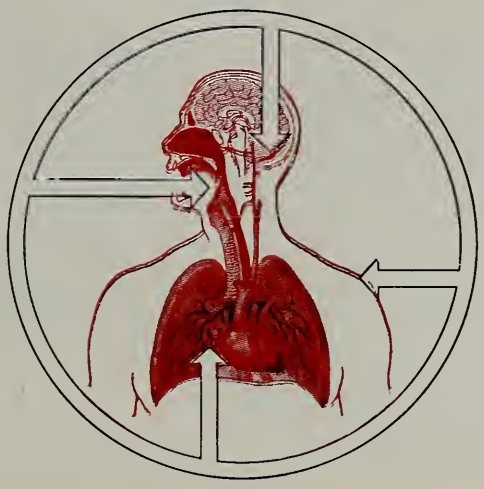
The New Orleans Graduate Medical Assembly will be held March 2-5, 1959, at the Roosevelt Hotel. For full information, write Maurice E. St. Martin, M.D., Secretary, 1430 Tulane Avenue (Room 103) New Orleans 12, Louisiana.

* * *

The University of Michigan has granted 10,252 Doctor of Medicine degrees since 1851—out of a total of 20,037 doctoral-level degrees granted since the University was founded. Runner-up to the medics are the den-

(Continued on Page 126)

Now—All cold symptoms can be controlled



Provides Triaminic for more complete and more effective relief from nasal and paranasal congestion because of systemic transport to *all* respiratory membranes—without drawbacks of topical therapy.†

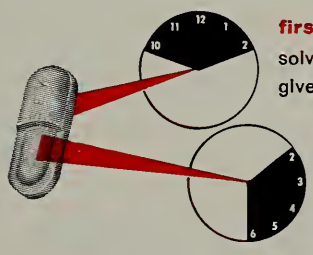
Provides well-tolerated APAP (N-acetyl-p-aminophenol) for prompt and effective analgesic and antipyretic action to make the patient more comfortable.

Provides Dormethan (brand of dextromethorphan HBr) for non-narcotic antitussive action on the cough reflex center in the medulla—as effective as codeine but without codeine's drawbacks.

Provides terpin hydrate, classic expectorant to thin inspissated mucus and help the patient clear the respiratory passages.

†Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

Special "timed release" design



first—the outer layer dissolves within minutes to give 3 to 4 hours of relief

then—the inner core releases its ingredients to sustain relief for 3 to 4 more hours

also available for those patients who prefer liquid medication: **Tussagesic suspension**

Each TUSSAGESIC tablet provides:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Dosage: One tablet in the morning, midafternoon and in the evening, if needed.

Tussagesic* *timed-release tablets*

**Contains* TRIAMINIC *to* STOP *running noses and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

RESEARCH

Research directed at the creation of new, more effective therapeutic agents and support of basic research concerned with new therapeutic concepts are obligations that confront pharmaceutical industry.

Ordinarily small pharmaceutical concerns do not engage in these activities.

It is with pride, therefore, that we wish to point toward the fact that Meyer and Company are presently supporting four research projects in recognized institutions in the United States and Canada, and that these grants are proportionately far in excess of the funds ordinarily allocated by other pharmaceutical concerns.



MEYER AND COMPANY

Pharmaceutical Manufacturers

Detroit 24, Michigan

(Continued from Page 124)

tists with 4,765 degrees and doctors of philosophy with 4,612.

* * *

The University of Cincinnati announces a four-day course in "Industrial Eye Problems" March 9-12, 1959. For program, write Secretary of Institute of Industrial Health, Kettering Laboratory, Eden and Bethesda Avenue, Cincinnati 19.

* * *



S. D. Steiner, M.D.

S. D. Steiner, M.D., Lansing, was appointed Medical Director of General Motors, effective December 1, 1958. Doctor Steiner succeeds Max R. Burnell, M.D., Flint, who retired November 1.

Since 1946, Doctor Steiner has been Medical Director of Oldsmobile in Lansing.

Congratulations and all success, Doctor Steiner.

* * *

H. Marvin Pollard, M.D., Ann Arbor, directed an American College of Physicians postgraduate course in gastroenterology at Ann Arbor recently at which sixty-five physicians were in attendance. This program was the third in a series of eight being held at major medical centers in the East and Midwest. Thirty members of the University of Michigan staff and fourteen visiting lecturers were the "teachers" at this seminar, including J. Edward Berk, M.D., Audrey K. Brown, M.D., Louis A. Schwartz, M.D., of Detroit.

* * *

Coleman Mopper, M.D., Detroit, was invited to present a scientific address at the University of Mexico, Mexico City, on November 19—in Spanish! Doctor Mopper accepted, realizing that he would have to master the Spanish language in a little over two months. How he did it is best described in his own words: "I immediately gave up golf and practically gave up medicine and studied nothing but Spanish. The vast majority of my studying was done in my automobile as I installed a tape recorder and purchased a course of Spanish records. After I presented my talk, the University of Mexico Professor of Dermatology complimented me both on my subject matter and my Spanish—and I must say I blushed with pride."

* * *

A. E. Schiller, M.D., of Detroit addressed the American Academy of Dermatology in Chicago on December 9 on the subject "Voluntary Prepaid Medical Care in Michigan."

* * *

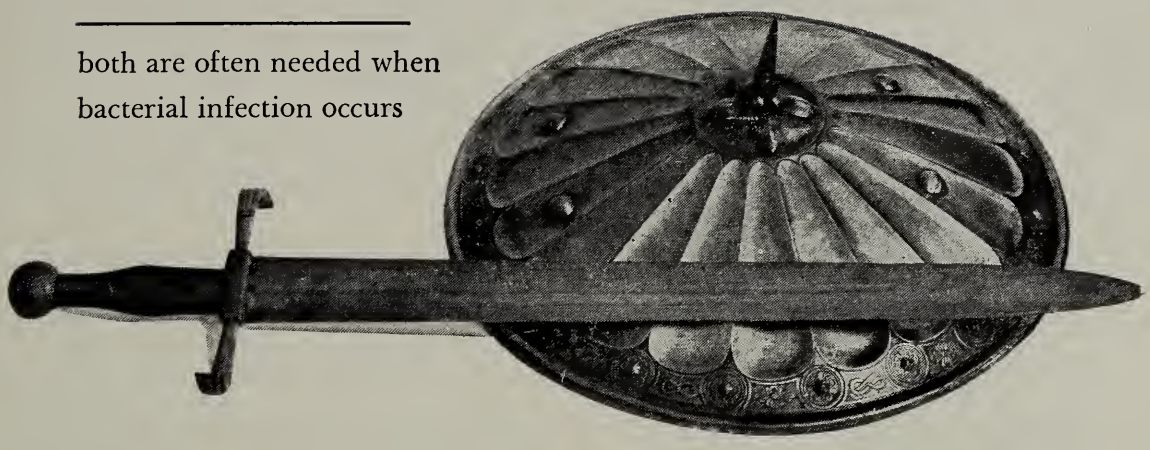
"Compulsory Temporary Disability Insurance Programs" is the title of a new brochure developed by the Committee on Medical Care for Industrial Workers, a joint committee of The Council on Industrial Health and The Council on Medical Service of the American Medical Association. This new booklet is of interest

(Continued on Page 128)

▪ prompt, aggressive
antibiotic action
▪ a reliable defense against
monilial complications

---

both are often needed when
bacterial infection occurs



for a direct strike at infection

Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

It provides the new chemical form of the world's most widely prescribed broad spectrum antibiotic.

It provides unsurpassed initial blood levels — higher and faster than older forms of tetracycline — for the most rapid transport of the antibiotic to the site of infection.

for protection against monilial complications

Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.* Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

SQUIBB *Squibb Quality — the Priceless Ingredient*

'MYSTECLIN'®, 'SUMYCIN'®, AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 126)

to all physicians and may be obtained by writing the American Medical Association Council on Medical Service (or Council on Industrial Health) 535 North Dearborn St., Chicago 10, Illinois.

* * *

"A Happy Solution to the Problem of Alcoholism" is the title of a very instructive and interesting brochure distributed by the Committee on Alcoholism of the Genesee County Medical Society (Flint, Michigan).

For copies of this excellent eight-page booklet, write the Genesee County Medical Society, 900 Begole Street, Flint 3, Michigan.

* * *

Enrollment at Wayne State University totaled 24,430 during the last semester, including an increase in the College of Medicine from 274 to 319.

COMING MEETINGS

The American Association of Physicians and Surgeons will hold its sixteenth annual meeting at the Hilton Hotel, Fort Worth, Texas, April 2, 3 and 4, 1959.

The American College of Allergists Graduate Instructional Course and Annual Congress will be held March 15-20, 1959, in the Mark Hopkins Hotel, San Francisco, California. For additional information, write John D. Gillaspie, M.D., Treasurer, 2049 Broadway, Boulder, Colorado.

American College of Surgeons (Meetings in 1959):

January.—Sectional Meeting, Francis Marion Hotel, Charleston, South Carolina. January 19-21. Dr. Kenneth M. Lynch, Jr., Charleston, Local Chairman.

February.—Sectional Meeting, Shamrock Hilton Hotel, Houston, Texas, February 2-4. Dr. J. Griffin Heard, Houston, Local Chairman.

Sectional Meeting, Hotel Vancouver, Vancouver, B. C., February 26-28. Dr. T. R. Sargeant, Local Chairman.

March.—Four-Day Sectional Meeting for Surgeons and Nurses, Kiel Auditorium, St. Louis, Missouri, March 9-12. Dr. Frank McDowal, St. Louis, Local Chairman for Surgeons Meeting. Miss Joyce Brueggeman, R.N., Local Chairman for Nurses Meeting.

April.—Four-Day Sectional Meeting for Surgeons and Nurses, The Queen Elizabeth Hotel, Montreal, Quebec, April 6-9. Doctors Harry S. Morton and Charles Edouard Hebert, Montreal, Local Chairmen for Surgeons Meeting, Miss Moyra Allen and Sister Denise Lefevre, Montreal, Local Chairmen for Nurses Meeting.

September.—Annual Clinical Congress, Atlantic City, New Jersey, September 28-October 2.

Additional information concerning any of the above meetings may be obtained from Dr. Michael L. Mason, Secretary, 40 East Erie Street, Chicago 11, Illinois.

The Fifty-fifth Annual Congress on Medical Education and Licensure will be held at the Palmer House in Chi-

(Continued on Page 130)

A workhorse "mycin" for common infections



respiratory infections

prompt, high blood levels

consistently reliable and reproducible blood levels

minimal adverse reactions

With well-tolerated CYCLAMYCIN, you will find it possible to control many common infections rapidly and to do so with remarkable freedom from untoward reactions. CYCLAMYCIN is indicated in numerous bacterial invasions of the respiratory system—lobar pneumonia, bronchopneumonia, tracheitis, bronchitis, and other acute infections. It has been proved effective against a wide range of organisms, such as pneumococci, H. influenzae, streptococci, and many strains of staphylococci, including some resistant to other "mycins." Supplied as Capsules, 125 and 250 mg., vials of 36; Oral Suspension, 125 mg. per 5-cc. teaspoonful, bottles of 2 fl. oz.

new

CYCLAMYCIN®

Triacetyloleandomycin, Wyeth

PHYSICIANS' COUNCIL FOR INFORMATION ON CHILD HEALTH

Conforms to Code for Advertising

Wyeth®
Philadelphia 1, Pa.



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

(Continued from Page 128)

cago, February 7-10, 1959. The first day's session will deal largely with specialism in medicine. The second day will deal with the role of research in the education of all physicians, and the third day will deal with the role of medical education in civilian and defense mobilization. All sessions are followed by open discussion or workshop.

* * *

Type is Type: Just before the American Revolution, the head of a leaden statue of England's King George III that had been destroyed in Bowling Green, New York, was melted down and converted into type to be used in printing a pamphlet protesting British rule!

SUBMISSION OF BILLS FOR SERVICES RENDERED TO ARMY MILITARY PERSONNEL BY CIVILIAN HOSPITALS AND PHYSICIANS

As a general rule, civilian medical agencies are aware of the appropriate channels for submission of their charges for care furnished Army military personnel. They are informed of the correct procedure, either by prior arrangement with the appropriate military authority for routine medical care of personnel under their jurisdiction, or through notification to the patient's Commanding Officer, or the Surgeon of the Army area in which emergency type of service is rendered.

In situations where the above does not apply or when the civilian medical agency is in doubt concerning the normal procedure, bills may be submitted directly to Headquarters Fifth US Army, Office of Army Surgeon, 1660 East Hyde Park Boulevard, Chicago 15, Illinois, with a request that they be placed in appropriate channels for settlement.

Such bills should show name, rank, service number, organization and duty station of the patient, disease or disability treated, inclusive dates and nature of the services, and a brief statement of the incident leading to the treatment.

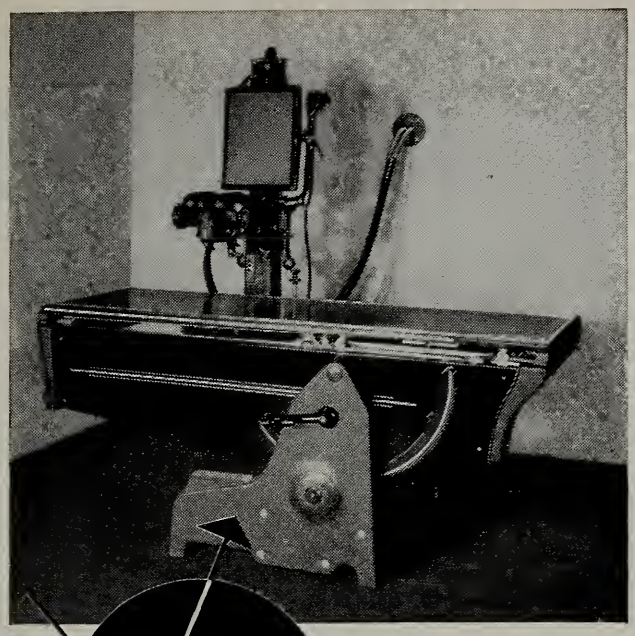
The above pertains *only* to care of military personnel, and should *not* be confused with the established procedures for the processing of claims for care of eligible military dependents under MEDICARE.

MICHIGAN'S DEPARTMENT OF HEALTH

(Continued from Page 110)

jobs done in those areas where a small increase in state aid will buy real gains.

The above proposal would protect many more children from crippling polio . . . get people out of their own sewage . . . help 18,000 old folks in nursing homes and similar institutions . . . make a measurable effort to reduce losses from long-term illness . . . protect against x-ray and other industrial hazards . . . improve basic local sanitation and nursing services where these needs are greatest. The request is conservative in the face of what is needed to guard the health and lives of eight million Michigan people.

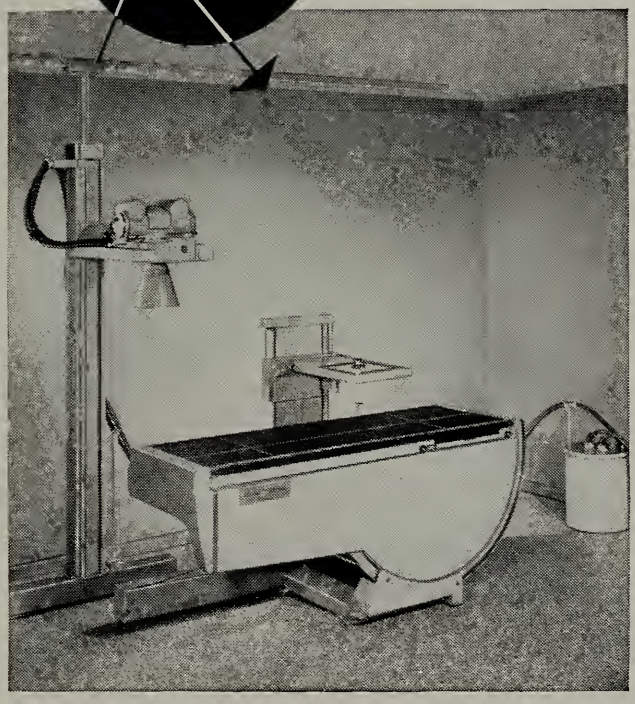


All this for one monthly fee

- Enjoy the most modern x-ray facilities . . . avoid obsolescence losses
- No surprise "extras" — covers periodic inspection, maintenance, replacement tubes, parts
- Freedom to add or replace equipment as improvements appear
- G.E. pays for insurance . . . assumes problem of collecting for equipment damage
- G.E. pays local property taxes

From This to This

without capital outlay



the difference is Maxiservice®

rental

Here's the perfect answer for a cost-saving x-ray installation, easy to keep abreast of important new developments. G-E Maxiservice ties up *none* of your capital . . . eliminates trade-in losses — progress determines your time for exchange, not finances. In effect, you contract for *utility, convenience, flexibility* and *service,* not for just equipment.

For complete details, contact your G.E. X-Ray representative listed below.

Progress Is Our Most Important Product

GENERAL ELECTRIC

DIRECT FACTORY BRANCHES

DETROIT

18801 W. 7 Mile Rd. • KEnwood 7-6300

DULUTH

928 E. 2nd St. • RAndolph 4-8648

RESIDENT REPRESENTATIVES

FLINT

E. F. PATTON, 1202 Milbourne • FLint 5-0842

GREEN BAY

J. J. VICTOR, 1242 S. Quincy St. • HEmlock 5-5742

JACKSON

E. J. RHINEHART, 231 N. Wisner St. • STate 4-1986

EAST GRAND RAPIDS

J. E. TIPPING, 1044 Keneberry Way, S.E. • GLendale 2-5283



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

In Memoriam

PHILIP H. BROUDO, M.D., seventy-one Detroit physician, died November 23, 1958. Born in Toronto, Doctor Broudo graduated from the University of Chicago and received his medical degree at the University of Illinois in 1910. He was active in the Zionist organization and a member of Congregation B'nai Moshe.

CHARLES P. DOYLE, M.D., eighty-seven, Lansing physician, died November 21, 1958. Born in Grand Rapids, where he obtained his early education, Doctor Doyle made history when he became one of the first students to graduate from the first four-year medical class at the University of Michigan. He established his first medical practice in Milford, later moving to Frankfort before going into the Army Medical Corps during World War I. In 1918, Doctor Doyle moved to Lansing, where he helped the medical profession grow from the "horse and buggy" days to today's modern era. He was twice Chief of Staff at St. Lawrence Hospital. His affiliations included St. Mary's Cathedral, Lansing Lodge No. 196 B.P.O. Elks, Knights of Columbus, and the Country Club of Lansing.

AARON R. EDWARDS, M.D., forty-six, Ann Arbor pediatrician, died November 9, 1958, in a fire at his home which also took the lives of his two daughters. Doctor Edwards was born at Marysville, Ohio, was graduated from Cornell University College in 1933, and received his medical degree from that institution's Medical College in 1941. He served during World War II as a Captain in the U. S. Army Air Corps and upon his discharge did residency work at Harper Hospital in Detroit and at University Hospital in Ann Arbor. He had operated a private practice in Ann Arbor since 1946 and was a member of the pediatrics staff at St. Joseph Mercy Hospital.

HENRY B. STEINBACH, M.D., seventy, Detroit physician, died November 21, 1958. Doctor Steinbach was born in Dorchester, Iowa, and graduated in 1920 from University of Iowa Medical School. He interned at Grace Hospital before setting up his practice in Detroit in 1921.

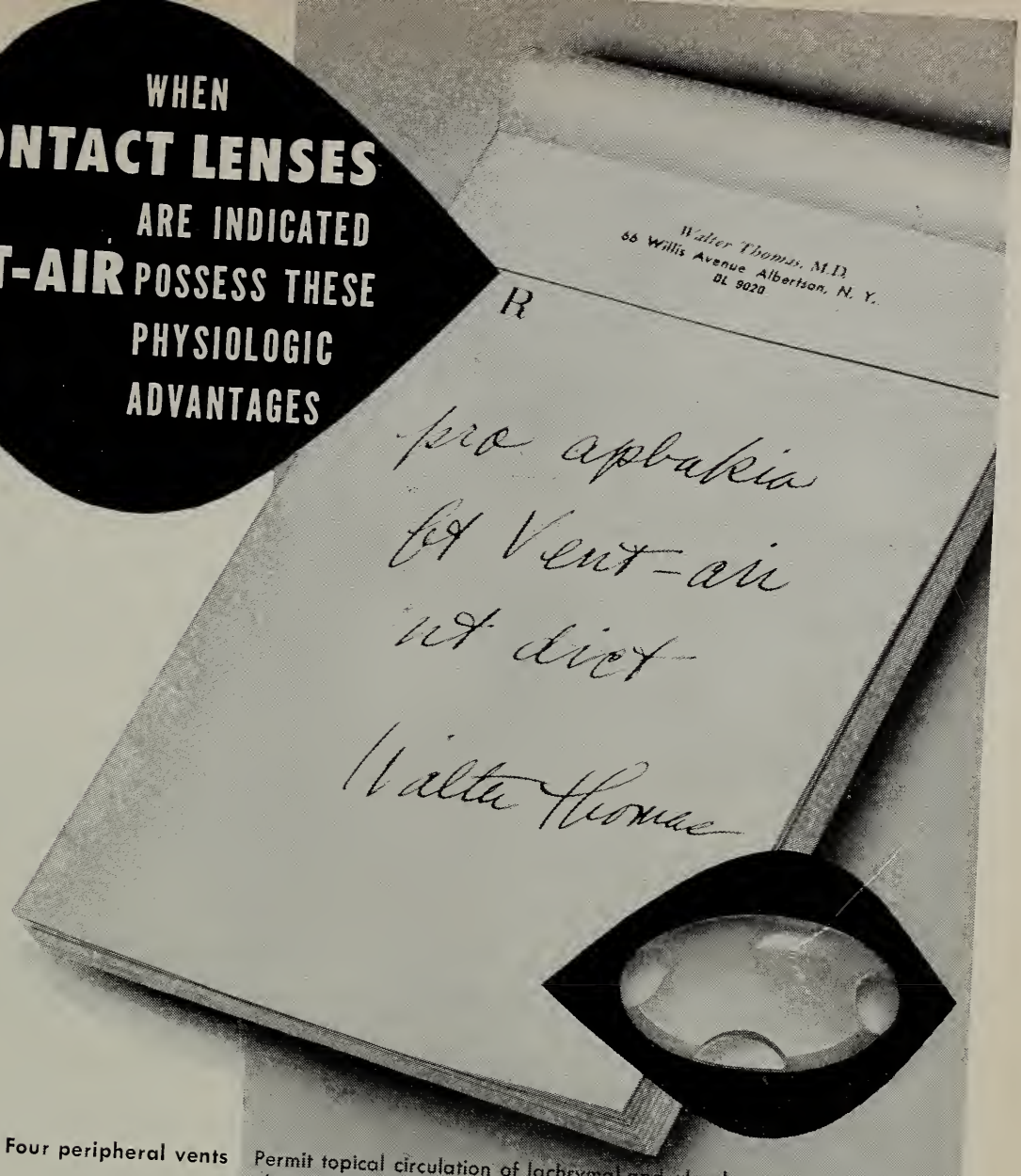
J. ORVILLE THOMAS, M.D., eighty-one, Lapeer County physician, died October 20, 1958.

Doctor Thomas, a native of Forest, Ontario, was a graduate of the Detroit College of Medicine and served a year's internship at Charing Cross Hospital in London, England. He practiced medicine in Lapeer County, Michigan, for more than sixty years, and, in 1949, the residents of North Branch organized a "Dr. Thomas Day," in appreciation.

Doctor Thomas served as president of the local school board and as health commissioner. He was a Mason and a Rotarian.

Say you saw it in the Journal of the Michigan State Medical Society

WHEN CONTACT LENSES ARE INDICATED VENT-AIR POSSESS THESE PHYSIOLOGIC ADVANTAGES



Four peripheral vents	Permit topical circulation of lachrymal and glandular secretions without excessive motility
Corneal apical clearance	Favors normal corneal metabolism and oxygenation
Ultra-Smoothness of Inner and Outer Surfaces	Avoid limbal epithelial and tarsal conjunctival exacerbation
Highly absorptive methyl-methacrylate composition	Simulates "wetting" and moisture-retention properties of cornea (of military specification)
Precision-ground	Prescriptive qualities exact to ± 0.12 D. with precise allowance for vertex refraction and lachrymal factor (exact to .02 mm radius in inner curvature)
Custom-fitted	In uni-, bi-, or tri-curve radii conforming to corneal peripheral asphericities
Hyper-thinness of edge or center	Maintains uniform thickness in high myopia or hyperopia approximating .20 mm irrespective of power
Widest range of inner radii	From 5.0 to 10.00 mm providing for extremes of keratoconic and megaloglobic dimensions
Cosmetic, pin-hole and tinted effects	For leucomatous, polyopic, iridodialytic and albinic conditions or other corneal or media anomalies.

VENT-AIR CONTACT LENS LABORATORIES • NEW YORK, N. Y.

INJURY REDUCTION BY IDENTIFICATION OF THE ACCIDENT-PRONE WORKER

(Continued from Page 94)

stead of being clustered about say, the right hand and forearm.

2. This variance in type and location of injury is presumptive evidence that there is no consistent operating factor in the situation.

3. The underlying cause is carelessness or inattention.

As might be expected, the ego of these persons will not permit them, when approached by the foreman, to admit why the accidents happen. As a result, they seek refuge in a "devil-may-care" or aggressive attitude. In either event, the supervisor is aware of what he is up against. The interview affords an opportunity for him to attempt correction of the man's attitude toward the work. If this does not succeed, he can arrange for assignment to work where the individual's predeliction for injuries will cause the least interruption to the production program of the department.

Prior to 1955, we relied on the usual safety program to control the incidence of injuries. During that period we were not able to demonstrate any consistent reduction in injury rates.

We have found that a personal interview with the individual who has exhibited a need of help regarding injuries he has had is a much more effective means of reducing accidents.

Our injury rate, as I have said, in 1954 was 3.92. In 1955, 3.60; 1956, 3.30, and in 1957 it dropped to 2.48 per thousand man-hours. All these reductions are statistically significant. The number of dispensary visits necessitated by plant injury, fell from 12.05 per thousand man-hours in 1954 to 6.30 in 1957.

We believe that this method of injury control is applicable to industry at large, and that its use would result in an improvement in manpower efficiency.

37 Florence Street

It's an "OPEN AND SHUT CASE" for sandura



The new WELCH ALLYN instrument case that offers you far greater

- **DURABILITY**
- **CLEANLINESS**
- **COMPACTNESS**
- **BEAUTY**

ILLUSTRATED — Welch Allyn Otoscope - Ophthalmoscope Set No. 983, complete with Sandura Case.

The Sandura Case is molded in reinforced material to stand great shock or abrasion, with tarnish-proof soft rubber lining which protects instruments from shock. The entire case can be washed or sterilized with alcohol.

THE MEDICAL SUPPLY CORPORATION

OF DETROIT

3502 Woodward Avenue **TEmple 1-4588** **Detroit 1, Michigan**

"It is concluded that the addition of buffering agents to acetylsalicylic acid in the concentrations used serves no clinically detectable useful purpose."[1]

[1]Sadove, Max S. and Schwartz, Lester: An Evaluation of Buffered Versus Nonbuffered Acetylsalicylic Acid, Postgraduate Medicine; 24:183, August, 1958.

Nonbuffered Material Used—Bayer® Aspirin.

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company
233 Washington S. E. Phone GL 9-8274
Grand Rapids 2, Mich.

Medical Arts Pharmacy
20-24 Sheldon S.E. Phone GL 9-8274
Grand Rapids 2, Mich.

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

HUMAN PARTURITION—Normal and Abnormal Labor. By Norman F. Miller, B.S., M.D., F.A.C.S., A.C.O.G., Professor of Obstetrics and Gynecology, University of Michigan Medical School; T. N. Evans, A.B., M.D., F.A.C.S., A.C.O.G., Late Associate Professor of Obstetrics and Gynecology, University of Michigan Medical School; R. L. Haas, A.B., M.D., F.A.C.S., A.C.O.G., Late Associate Professor of Obstetrics and Gynecology, University of Michigan Medical School. Baltimore: The Williams & Wilkins Company, 1958. Price $7.50.

This is a very comprehensive treatment of the subject of labor and obstetrics. It includes the anatomy of the female pelvis and its relationship to the fetus in both normal and abnormal conditions. There are two excellent chapters, "Induction of Labor" and "Bleeding in Late Pregnancy." The chapters are written in an outline form with the main topic stated. This is followed by various headings with detailed explanations. This book is an ideal supplement to the standard texts on Obstetrics and is of great value to any doctor doing obstetric work.

J.E.P.

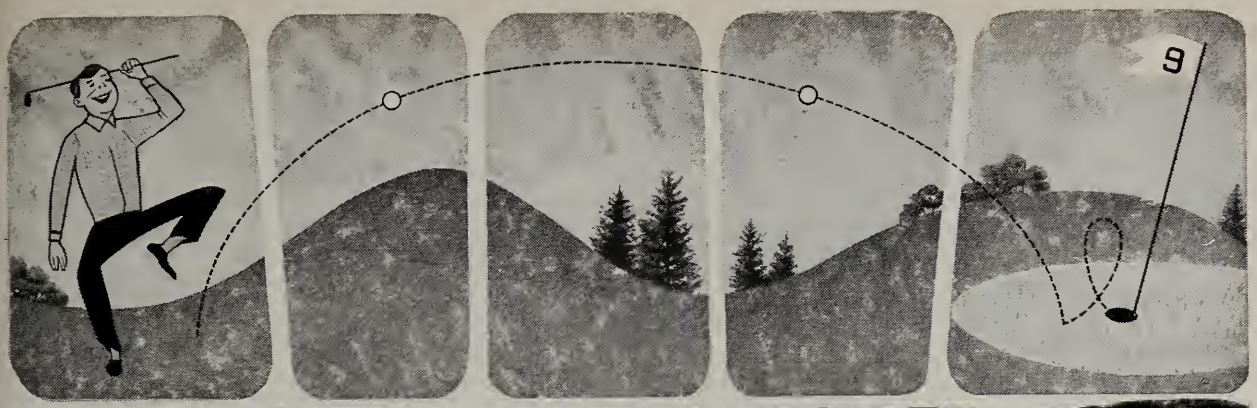
HENRY FORD HOSPITAL INTERNATIONAL SYMPOSIUM—RETICULAR FORMATION OF THE BRAIN. Editors, Herbert H. Jasper, Montreal Neurological Institute; Lorne D. Procter, Division of Neurology and Psychiatry, Henry Ford Hospital; Robert S. Knighton, Division of Neurosurgery, Henry Ford Hospital; William C. Noshay, Section of Neurology, Henry Ford Hospital; Russell T. Costello, Department of Medicine (Neurology), Wayne State University. 766 pages. Boston and Toronto: Little Brown and Company, 1958. Price $16.00.

This distinguished volume provides up-to-date knowledge of the brain's reticular formation system, that part of the nervous system which now appears to serve as a chief center of neurophysiological integration and function. In this system, the authors include the nonspecific thalamic nuclei and related gray matter in the diencephalon, septal region, and amygdala, "with reverberating circuits of enormous complexity."

Seventy-two specialists from different parts of the world pooled their laboratory and clinical findings on the reticular system during this truly "memorable symposium," held at Henry Ford Hospital, March 14, 15, and 16, 1957. Although the program devoted itself also to neuro-anatomy and behavioral studies, by far its largest division was that of neurophysiology.

This council may be conceived as a progressive development of the symposium on Brain Mechanisms and Consciousness held at Quebec, 1953. The names of its renowned contributors and their comprehensively ranging topics, are too numerous even to list here. It is but further tribute to this excellent digest to wish that the work of many others might have been included in it. The

(Continued on Page 138)



LEAVES NOTHING TO BE DESIRED

HYCOMINE® Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / antihistamine / expectorant

- relieves cough and related symptoms in 15-20 minutes
- effective for 6 hours or longer • promotes expectoration
- rarely constipates • cherry-flavored

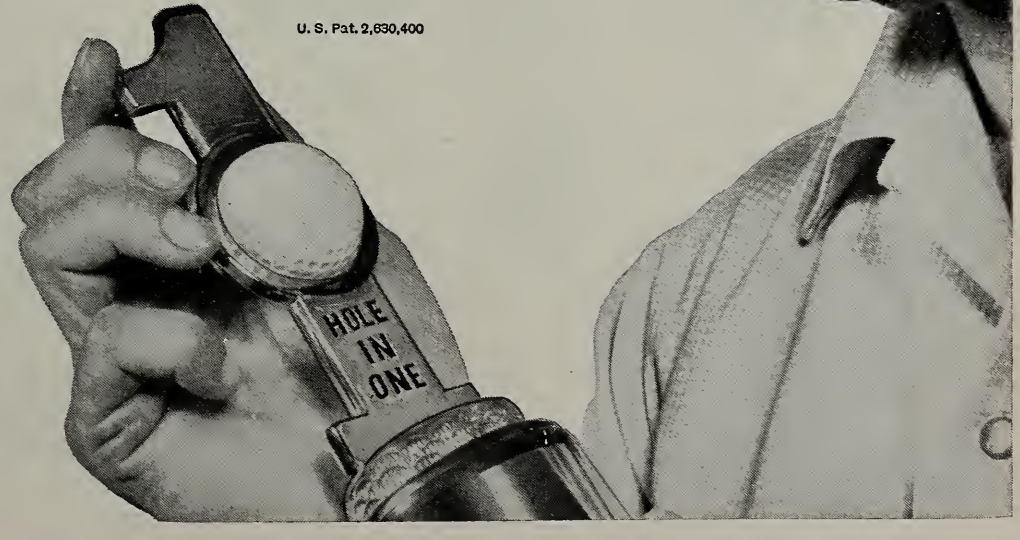
Each teaspoonful (5 cc.) contains:

Hycodan®		
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Adult Dosage: one teaspoonful q. 6 h. May be habit-forming.
Federal law permits oral prescription.

Endo®

Literature on request
ENDO LABORATORIES
Richmond Hill 18, New York



U. S. Pat. 2,630,400

(Continued from Page 136)

multiple authorship succeeds in reflecting the high-spirited keen-mindedness lived in each one of the conference sessions. The book is packed with helpful insights regarding neurophysiological behavior and the integration of elements of the nervous system.

To illustrate, Herbert H. Jasper observes, "When the brain really does act as a whole with uniformity of electrical pattern throughout, as during petit mal seizures, we may have unconsciousness. Differential organization of activity is required for conscious integrative function. If the reticular system is of importance in such consciousness processes, it must possess properties of differential organization. In this process, inhibitory mechanisms probably play a leading role.

The Introduction expresses the sincere hope that scientific investigation of the reticular formation "will provide a means, through experimental psychology and psychiatry, for a more scientific basis for understanding the dynamics of these disciplines." Certainly one cannot study this faithful report of careful research without wholesomely marvelling at the power of the human mind.

This brief review can hardly do justice to this basic compilation which justifies the publisher's claim for it as being "a landmark in neurological literature." It properly belongs in every well developed behavioral science library.

The volume is of pleasing format. Extensively it uses well done and clear diagrams, illustrations, and black and white plates. It also includes a fairly comprehensive subject index.

J.M.D.

PATHOPHYSIOLOGY IN SURGERY. By James D. Hardy, M.S. (Chem.), M.D., F.A.C.S., Professor and Chairman, Department of Surgery, and Director of Surgical Research, University of Mississippi Medical Center; Surgeon-in-Chief, Hospital of the University of Mississippi; Chief Surgical Consultant, Jackson Veterans Hospital and Mississippi Tuberculosis Sanatorium. Baltimore: The Williams & Wilkins Company, 1958. Price, $19.00.

This is a rather specialized book of physiology, of vital importance to anyone doing general surgery. The author has condensed a vast amount of literature that has appeared since World War II on the general subject of surgical physiology and pathophysiology. He has covered an immense amount of material that has appeared in surgical literature and has organized and condensed it so the reader is kept abreast of the present trend of thought without having to be overwhelmed by the vast amount of extraneous material encountered in the current literature. The book is well illustrated and the pros and cons of various physiological problems are presented. The author cleverly uses charts and sketches to summarize and correlate pathophysiological data.—J.M.H.

(Continued on Page 140)



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

MOTOR CARS...
are among the finest products of MICHIGAN *industry...*
just as quality PHARMACEUTICALS *are the constant product of*
MARION LABORATORIES

Marion's Oyster Shell, In Four Combinations with Vitamins and Iron

- No Leg Cramps
- More Ionized Blood Calcium
- Fewer Secondary Anemia Problems
- Better Tolerated Iron Therapy
- Economical Medication

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

MARION LABORATORIES, Inc.

2910 Grand Ave. • Kansas City, Missouri

*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis
Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

(Continued from Page 138)

THE MANAGEMENT OF EMERGENCIES IN THORACIC SURGERY. By John Borrie, M.B.E., Ch.M., F.R.C.S. (Eng.), F.R.A.C.S., Thoracic Surgeon, Dunedin Hospital and Southern Metropolitan Region, New Zealand; Senior Lecturer in Thoracic Surgery, University of Otago Medical School, Formerly, Hunterian Professor and Jacksonian Prizeman, Royal College of Surgeons, England; Assistant Thoracic Surgeon, Newcastle upon Tyne, England; New Zealand Nuffield Surgical Fellow. Foreword by Sir Russell Brock. New York: 1958. Appleton-Century-Crofts, Inc. Price, $10.00.

This beautifully arranged text approaches thoracic procedures from the anatomic, physiological and pathological aspects. The book is extremely well written, being very concise and practically in outline form, each chapter being summarized at the end. The approach to thoracic emergencies is taken up methodically from the chest well into the pleural cavity, lungs, esophagus, mediastinum, diaphragm and cardiac areas. This book is very practical and would be an important addition to the library of any physician concerned with thoracic emergencies. Its concise form and organization lend it well to use for students.—J.M.H.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY, Volume 12. Hormone Production in Endocrine Tumors. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Conner, B.A. With 58 Illustrations and Cumulative Index to Volumes 1-12. Boston: Little, Brown & Co. Price $9.00.

The papers deal primarily with biochemical studies using micromethods of chemical assay of the hormone substances. The book brings together valuable background material for the research worker, the biochemist, and the endocrinologist. Each paper is followed by a general discussion. A wide range of endocrine tumors is discussed.

This book is recommended for the library of research institutions, primarily, and to those researchers in this field of special interest. An extensive bibliography is presented.

R.W.B.

MECHANISMS, DIAGNOSIS AND MANAGEMENT HEAD INJURIES. By E. S. Gurdjian, M.D., Professor of Neurological Surgery and Chairman of the Department of Neurosurgery, Wayne State University College of Medicine; Department of Neurosurgery, Grace and Detroit Memorial Hospitals, and J. E. Webster, M.D., Associate Professor of Neurological Surgery, Wayne State University College of Medicine; Department of Neurosurgery, Grace and Detroit Memorial Hospitals. Boston and Toronto: Little, Brown and Company, 1958. Price $14.00.

The authors present an interesting, rather brief survey on the historical aspects of head injuries in their treatment from prehistoric up to the present time. The book summarizes the clinical, experimental and neurosurgical

(Continued on Page 142)

...to postpone the "G" point*...

℞.....Geritag

For patients over 40, The G POINT (point of declination in life) can be postponed!

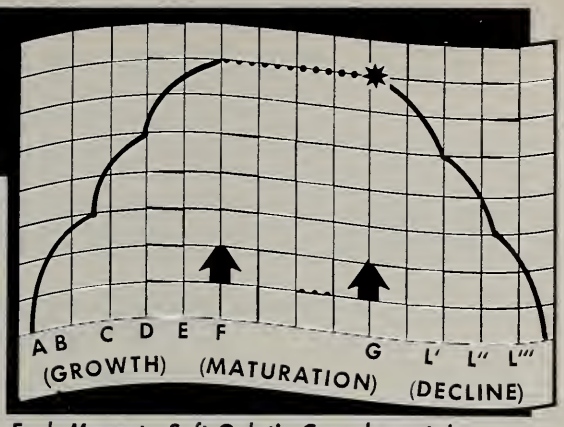
Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

Write for Latest Technical Bulletins.



Each Magenta Soft Gelatin Capsule contains:

Methyltestasterane	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estradial	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridaxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascarbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Chaline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methianine	20 mg.
Vitamin E	1 I.U.	Inositol	20 mg.
Cal. Pantothenate	3 mg.		

Also available as injectable.

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

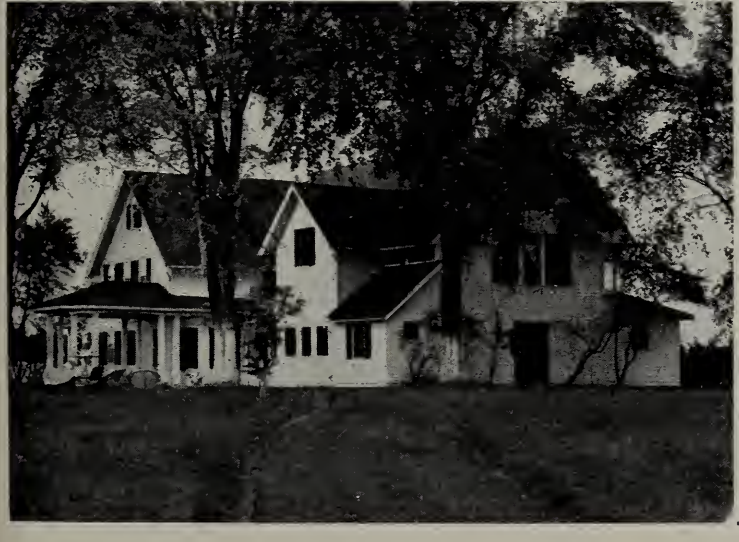
BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

The HAVEN SANITARIUM, Inc.

Rochester, Michigan

In operation since 1932

M. O. Wolfe, M.D.
Director of Psychotherapy

Ralph S. Green, M.D.
Clinical Director

Graham Shinnick
Manager

A private psychiatric hospital for the intensive treatment of mental and emotional illnesses.

Telephone: OLive 1-9441

(Continued from Page 140)

experiences of the authors. The anatomy, pathology and physiology are well presented and discussed. Many of the diagnostic technics, clinical manifestations and treatment are demonstrated by means of photographs and drawings. They have correlated the experimental work done in trauma with the clinical material available, which has resulted in a very practical manual.

The book is well illustrated, and pictures demonstrate the underlying mechanisms clearly. This book should be valuable to every doctor treating present-day head injuries.—J.M.H.

THE NEUROLOGIC EXAMINATION. Incorporating the Fundamentals of Neuroanatomy and Neurophysiology. Second Edition. By Russell N. DeJong, M.D., Professor of Neurology and Chairman of Department of Neurology, University of Michigan Medical School. 1078 pages. 368 illustrations. New York: Hoeber-Harper, 1958. Price, $20.00.

This praiseworthy exceptional textbook on the fundamentals of neurology and neurologic diagnosis, is one in which every Michigan physician may justly take personal satisfaction and fraternal pride. It stands as a worthy revision of the first edition (1950), which found acceptance and acclaim throughout the medical world, and it duly realizes advantages accruing from originating upon that kind of eminence. It is built around a finely discriminating appreciation of neurologic structure and function (rather than around the neurological disease entity), demonstrating nice recognition of the workings of the nervous system as its basic frame of reference. It correlates neurological organization and utility in a way that enables the explanation of neurologic disorder as consisting of functional deviation understandably necessitated by structural change.

It is a scholarly work basically oriented around health, for the purpose of understanding the deviation of health. Its life-affirming orientation distinguishes it from the traditional text which tends to be oriented around disease, thus obscuring the significance of "disease" as health deviation. Dr. DeJong's method of presentation of the neurological disorders safeguards itself against the ever-present possibility of overlooking man in order to study disease process. This scientific methodology upholds a wholesome insight: thorough appreciation of what health is, is indispensable for the humane study of health's vicissitudes.

Like the first edition, this second edition is divided into ten parts. The first six parts cover history taking, neurological physical and mental examinations, and thorough studies of the several neurological systems (sensory system, cranial nerves, motor system, reflexes, and autonomic nervous system). Parts seven and eight include diagnosis and localization of disease of the peripheral nerves, nerve roots, spinal cord, and intracranial region. Part nine contains special methods of examination in the states of disordered consciousness, suspected hysteria and malingering. Part ten covers spinal puncture and the examination of the cerebrospinal fluid.

The author's studious detailing of anatomy, physiology, and methods of examination, is most helpful for the practical guidance of every pupil and practitioner of medicine. His careful consideration of the particulars as well as of the whole of neurological structure and functioning, is of special importance for every reader who is interested in finding out the sum and substance of his subject. A basic work reporting established neurological findings, it does not purport to detail therapy, except in the sense that it plainly implies: to be able to make an accurate diagnosis points the direction to the most helpful therapeutics currently available.

The book has a pleasing format. Its print is very legible, and its illustrations are clear. In addition to lists of references following individual chapters, it has a General Reference section. Its Index is helpfully full, containing a goodly number of cross references. Its purchaser will get his money's worth on an economical investment. True to its publisher's claim, "as a practical, complete, and lucid integration of basic neuroanatomy and physiology and their clinical implications, this volume stands unique."

J.M.D.

EMERGENCY WAR SURGERY. U. S. Armed Forces Issue of Nato Handbook Prepared For Use By the Medical Services of NATO Nations. United States Department of Defense. For sale by the Superintendent of Documents. Washington, D. C.: U. S. Government Printing Office, 1958. Price, $2.25.

This compact book, which is designed to fit in the pocket of a field uniform, is concise and practical. It is a carefully written book and covers the care of casualties from foreward areas on the battlefield through to the

Say you saw it in the Journal of the Michigan State Medical Society

evacuation hospitals. The principles and practices described are well adapted to the treatment of trauma such as occurs in modern civilian life. It is a "must" for those interested in traumatic surgery.

Each chapter contains a summary detailing the practical application of the special procedures and principles described. It covers injuries ranging from missile, thermal, cold, crush, blast, chemical, radiation, and multiple injuries. The amount of material in this small volume is so vast it is practically in outline form. It is practical, and contains charts that are handy in that they translate anesthetics, narcotics, antibiotics and drugs of various kinds with their commonly used names in the United States, United Kingdom, and France. It contains many useful conversion tables on weights and measures. The index is rather complete and handy.

This is probably one of the most practical and concise textbooks that has ever been published on emergency war surgery, and well deserves a place in the library of those interested in traumatic surgery.

J.M.H.

THE ETERNAL SEARCH. The Story of Man and His Drugs. By Richard R. Mathison. New York: G. P. Putnam's Sons, 1958. Price, $5.95.

This is a most unusual and highly entertaining account of medical and pharmaceutical lore, of interest not only to the physician, bu tto those in allied professions of pharmacy, nursing, and medical technology as well. It is medical history at its best, written in a form that is light, interesting, and easy to pick up for spare moments of short perusal, for bedtime reading, or the like. It will hold your interest from the time you first crack the cover, for it is not a text book.

It is developed and organized by ailments and types of drugs, and not chronologically. Primitive remedies and customs, old myths and beliefs, quackeries, sexual practices and rites, embalming, midwifery, and many other topics in addition to the many various old drugs, remedies, and even cosmetics are discussed. Many of the words and expressions of medical lore are traced to their origin.

This book is heartily recommended to every physician.

R.W.B.

PEDIATRIC METHODS AND STANDARDS. Department of Pediatrics, School of Medicine, University of Pennsylvania. Edited by Fred H. Harvie, M.D., Associate Professor of Clinical Pediatrics. Third Edition. Philadelphia: Lea & Febiger, 1958. Price, $4.50.

This concise booklet is a pediatric dictionary. It cannot be reviewed; it has to be used. There are twenty-three chapters covering all the pediatric essentials, including History Taking, Laboratory Tests, Tables of Normal Values, Studies of Renal, Neurologic, Endocrine and Liver Functions, Therapy, Dosages and Pediatric Surgery. All the material is well up to date and a guide to good current pediatric practice in hospital and office.

R.S.S.



Communications

DRIVERS, NOT CARS

I'm disturbed by recent *Free Press* editorial comment which tended to minimize the importance of driver failure in car accidents in favor of mechanical defects of the cars themselves.

Mechanical shortcomings are important and, of course, should be prevented by all means possible. Admittedly no statistics are 100 per cent accurate, but at present we have no other choice than to take the available figures arrived at by the responsible law enforcement and safety agencies which study the accidents you and I get into.

Their present conclusions are that mechanical defects account for only about 8 per cent of traffic accidents.

In three years, Michigan has made unusual progress in reducing highway deaths.

No safety expert will give all the credit to any one factor, but certainly we cannot overlook a student driver training program which already is bearing fruit, a state speed law to caution our enthusiasm with the accelerator, more state troopers to remind us of our mistakes, and an educational program (participated in actively by the *Free Press*) aimed to help every driver be a better driver.

Cars are safer than they were three years ago, but that alone has not accounted for the decreased deaths, else the same degree of improvement would be noted nationwide, which it isn't.

How many of us in the last year have never been careless behind the wheel, have never passed when we should not have, have never driven too fast, have never taken a chance, have never been discourteous to one of our fellow motorists, and have always observed all the traffic rules? I am sure that most of us have been guilty. I know I have.

JOHN R. RODGER, M.D.
Chairman, Traffic Safety Committee of The Michigan State Medical Society

Bellaire

—From *Detroit Free Press*, Oct. 26, 1958

MSMS DEVELOPMENT OF SEAL OF ASSURANCE PLAN AND RESULTING M-75 CONTRACT

Excerpts from a letter written by the Medical Director of one of our largest commercial insurance companies, sent to his friend, Dr. I.M.W.

"You and I realize full well that if the Blues go to the wall, the commercial carriers are next. Then the Government will move in."

"I am glad of your activity. As a proponent of indemnity plans, I would plead with you to be tolerant with those of us who are in the insurance business with no desire to dictate or interfere in any way with the way in which medicine is practiced. Our job is to insure. Our advantage, we feel, in competition with the service plans is that we can be much more flexible. We try to sell the insured what he wants. We guarantee him nothing but money."

"Change is inevitable. The Michigan State Medical Society has shown virility by trying to meet the changing conditions. More power to you all. As long as we live, there will be change; and we must be ready to meet it, if we are to survive."



Portable Ultrasonic Generator. F.C.C. Type Approved.

Portable ULTRASONIC Generator

1. Federal Communications Commission Type approval No. U-153
2. Underwriters' Laboratories Approval
3. Genuine Quartz Crystal of five square centimeters
4. Output up to fifteen Watts, total
5. Intensity selected on Indexed Rotary Switch with steps of 0.2, 0.5, 1.0, 1.5, 2.0 and 3.0 Watts per square centimeter, each of which is calibrated.
6. Handle for easy carrying and wrap-around for cables
7. Bracket furnished for wall mounting.
8. Cabinet also fits standard size Mobile Utility Stand
9. Cabinet dimensions: 16⅝" long, 10" deep, 5¾" high
10. Weight 28 pounds

H. G. FISCHER & CO.
OF DETROIT
21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE 7-4140

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 FEBRUARY, 1959 NUMBER 2

Contributors to This Issue



FRANCIS C. BROWN, LL.B., LL.M.



BROCK E. BRUSH, M.D.



JAMES E. CROUSHORE, M.D.



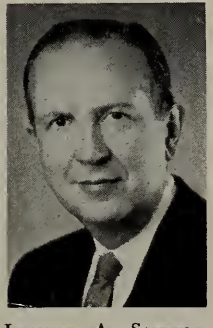
DAVID C. ENGLISH, M.S., M.D.



JOHN B. HARTZELL, M.D.



JOSEPH L. POSCH, M.D.



LEONARD A. SCHEELE, M.D.

Table of Contents

The State of the Nation's Health and Health Problems
Leonard A. Scheele, M.D. 197

Marsilid and Pacatal in the Treatment of Depressive Schizophrenic Reactions
David C. English, M.S., M.D. 205

Foreign Bodies of the Hand
Alfred N. Gerein, M.D., and *Joseph L. Posch, M.D.* 212

Management of the Swollen Arm Following Mastectomy
Brock E. Brush, M.D., John H. Wylie, M.D., Joseph Beninson, M.D., Melvin A. Block, M.D. and *Thomas J. Heldt, M.D.* 216

Fractures in Children
James J. Horvath, M.D. 220

Advances in Knowledge of the Physiology of Wound Healing
John B. Hartzell, M.D., and *Carlos Mota, M.D.* 223

Industry's Skill and Mankind's Benefit
Francis C. Brown 229

Tympanoplastic Procedures for Chronic Ear Infections
James E. Croushore, M.D. 235

President's Message:
The Community: A Challenge in Responsibility 239

Editorial:
The Doctor As a Citizen 238
The Doctor Is a Citizen 238
Aged Care Plan 240
National Legislation 241
Blue Shield Administration 242
Tribute to Willing Workers 242
Medicine and Blue Shield Accept the Challenge 243

Michigan Clinical Institute 244
Michigan Department of Health 252
In Memoriam 256
News Medical 260
Communications 289
Legal Opinion 290
The Doctor's Library 291

You and Your Business 156
Cancer Comment 184
AMA Washington Letter 186
PR Report 190

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 FEBRUARY, 1959 NUMBER 2

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
C. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage; Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
R. L. Novy, M.D., Detroit.....1960
W. D. Barrett, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

W. W. Babcock, M.D., Detroit.....1959
E. F. Sladek, M.D., Traverse City.....1959
O. J. Johnson, M.D., Bay City.....1959
L. R. Leader, M.D., Detroit.....1960
Wm. Bromme, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit



† as designated by the A.M.A. Council On Drugs, 1958

Specific Antihistaminic Effect
reduces—erythema, excoriation and extent of lesions[1-4]

Recommended Oral Dosage:
50 mg. q.i.d. initially; adjust according to individual response.

References: 1. Feinberg, A. R., et al.: J. Allergy *29*:358 (July) 1958. 2. Eisenberg, B. C., Clinical Medicine *5*:897-904 (July) 1958. 3. Robinson, H. M., et al.: J.A.M.A. *161*:604-606 (June 16) 1958. 4. Robinson, H. H., et al.: So. Med. J. *50*:1282 (Oct.) 1957.

*Trademark

Psychotherapeutic Potency
relieves—tension, anxiety and itching.[1-4]

Supplied as:
Vistaril Capsules—25 mg., 50 mg., 100 mg.
Vistaril Parenteral Solution—10 cc. vials and 2 cc. Steraject® Cartridges, each cc. containing 25 mg. hydroxyzine (as the HCl)

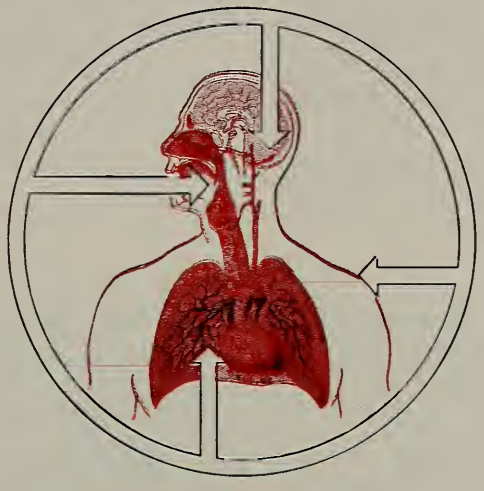
Pfizer *Science for the world's well-being*

PFIZER LABORATORIES Division, Chas. Pfizer & Co. Inc., Brooklyn 6, N. Y.

COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY
ALLEGAN	A. P. Brachman, M.D., Allegan	H. E. Schneiter, M.D., 111 Locust St., Allegan
ALPENA-ALCONA-PRESQUE ISLE	S. L. Cohn, M.D., Alpena	Harold Kessler, M.D., 312 E. Chisholm, Alpena
BARRY	T. W. Myers, M.D., Nashville	E. L. Phelps, M.D., 118 W. Walnut St., Hastings
BAY-ARENAC-IOSCO	G. L. Hagelshaw, M.D., Bay City	H. T. Knobloch, M.D., 1102 Columbus Ave., Bay City
BERRIEN	F. A. Kennedy, M.D., Benton Harbor	R. L. Landgraf, M.D., 122 Grant St., Niles
BRANCH	H. C. Mitchell, M.D., Coldwater	J. C. Heffelfinger, M.D., 292 E. Chicago, Coldwater
CALHOUN	D. L. Finch, M.D., Battle Creek	S. A. Yannitelli, M.D., 1331 W. Michigan Ave., Battle Creek
CASS	J. K. Hickman, M.D., Dowagiac	G. E. Loupee, M.D., 110 W. Division, Dowagiac
CHIPPEWA-MACKINAC	E. S. Rhind, M.D., Sault Ste. Marie	T. B. Mackie, M.D., 300 Court St., Sault Ste. Marie
CLINTON	A. C. Henthorn, M.D., St. Johns	B. C. Cook, M.D., Westphalia
DELTA-SCHOOLCRAFT	O. S. Hult, M.D., Gladstone	N. L. Lindquist, M.D., 205 S. Tenth St., Escanaba
DICKINSON-IRON	D. T. Anderson, M.D., Iron Mountain	R. D. Cecconi, M.D., 110 W. "B" St., Iron Mountain
EATON	A. W. Myers, M.D., Potterville	J. L. Riley, M.D., 201½ S. Cochran, Charlotte
GENESEE	J. E. Livesay, M.D., Flint	J. B. Rowe, M.D., 202 Paterson Bldg., Flint
GOGEBIC	D. L. Davidson, M.D., Bessemer	W. H. Wacek, M.D., Ironwood
GRAND TRAVERSE-LEELANAU-BENZIE	J. W. Hall, M.D., Traverse City	W. W. Cline, M.D., 436 W. Front St., Traverse City
GRATIOT-ISABELLA-CLARE	L. R. Wickert, M.D., Mt. Pleasant	P. H. Ringer, Jr., M.D., 314 S. Brown, Mt. Pleasant
HILLSDALE	J. A. MacNeal, M.D., Hillsdale	F. M. Wessels, M.D., Hillsdale
HOUGHTON-BARAGA-KEWEENAW	F. E. Kolb, M.D., Calumet	M. S. Williams, M.D., 1412 E. Houghton, Houghton
HURON	P. R. Turner, M.D., Harbor Beach	R. C. Dixon, M.D., Pigeon
INGHAM	H. W. Harris, M.D., Lansing	W. D. Cheney, M.D., 1215 E. Michigan, Lansing
IONIA-MONTCALM	J. G. Haarer, M.D., Ionia	C. E. Stevens, M.D., Greenville
JACKSON	J. B. Meads, M.D., Jackson	H. W. Porter, M.D., 505 Wildwood, Jackson
KALAMAZOO	J. G. Malone, M.D., Kalamazoo	R. D. Warnke, M.D., 909 Am. Nat'l Bank Bldg., Kalamazoo
KENT	J. W. Logie, M.D., Grand Rapids	G. A. Mulder, M.D., 26 Sheldon Ave. S.E., Grand Rapids
LAPEER	T. K. Buchanan, M.D., Imlay City	J. R. Doty, M.D., 315 Clay St., Lapeer
LENAWEE	J. W. Berghuis, M.D., Adrian	R. T. Hammel, M.D., 401 E. Chicago Blvd., Tecumseh
LIVINGSTON	R. F. Hauer, M.D., Fowlerville	R. M. Duffy, M.D., 250 E. Main St., Pinckney
LUCE	R. E. Gibson, M.D., Newberry	R. P. Hicks, M.D., 210 W. John St., Newberry
MACOMB	D. L. Rousseau, M.D., Mt. Clemens	Peter V. Kane, M.D., 67 Cass, Mt. Clemens
MANISTEE	Ruth E. Lalime, M.D., Bear Lake	J. J. Loughrin, M.D., 90 Maple St., Manistee
MARQUETTE-ALGER	L. W. Howe, M.D., Marquette	Louis Rosenbaum, M.D., 540 E. Division, Ishpeming
MASON	J. R. Carney, M.D., Ludington	A. F. Boon, M.D., 203 N. Ferry St., Ludington
MECOSTA-OSCEOLA-LAKE	J. L. Tyson, M.D., Big Rapids	J. E. Walters, M.D., 1014 S. State St., Big Rapids
MENOMINEE	Arthur Gonty, M.D., Menominee	G. H. Hopson, 100 Tenth St., Menominee
MIDLAND	J. A. Bernier, M.D., Sanford	B. B. Holder, M.D., Dow Chemical Co., Midland
MONROE	W. A. Meier, M.D., Monroe	R. A. Frary, M.D., 423 E. Elm, Monroe
MUSKEGON	N. A. Fleishman, M.D., Muskegon	H. C. Tellman, M.D., 706 Hackley Union Bank Bldg., Muskegon
NEWAYGO	Jess DeYoung, M.D., Fremont	R. W. Emerick, M.D., Gerber Mem. Hosp., Fremont
NORTH CENTRAL	L. F. Hayes, M.D., Gaylord	Paul Dosch, M.D., Grayling
NORTHERN MICHIGAN	R. G. Martin, M.D., Charlevoix	T. R. Kirk, M.D., Burns Clinic, Petoskey
OAKLAND	R. R. Wessels, M.D., Birmingham	J. A. Read, M.D., 175 E. Hickory Grove Rd., Bloomfield Hills
OCEANA	W. G. Robinson, M.D., Hart	W. G. Robinson, M.D., 219 State St., Hart
ONTONAGON	Ross Vilardo, M.D., White Pine	W. F. Strong, M.D., Ontonagon
OTTAWA	W. S. Kuipers, M.D., Holland	P. J. DeVries, M.D., 214 Washington, Grand Haven
SAGINAW	D. V. Sargent, M.D., Saginaw	C. G. Kramer, M.D., P.O. Box 2248, Saginaw
ST. CLAIR	A. C. Gholz, M.D., Port Huron	G. E. Mohney, M.D., 311 Pine St., Port Huron
ST. JOSEPH	J. H. O'Dell, M.D., Three Rivers	C. G. Porter, M.D., 226 East St., Three Rivers
SANILAC	E. W. Blanchard, M.D., Deckerville	M. H. Jayson, M.D., Marlette
SHIAWASSEE	N. F. Bach, M.D., Owosso	J. F. MacGregor, M.D., 113 E. Williams, Owosso
TUSCOLA	L. L. Savage, M.D., Caro	E. N. Elmendorf, M.D., Vassar
VAN BUREN	J. A. Kleber, M.D., South Haven	A. E. Parks, M.D., Lawton
WASHTENAW	D. A. Campbell, M.D., Ann Arbor	G. H. Bauer, M.D., 2015 Manchester Rd., Ann Arbor
WAYNE	C. I. Owen, M.D., Detroit	H. M. Fuller, M.D., 1010 Antietam, Detroit
WEXFORD-MISAUKEE	M. D. Bentley, M.D., Cadillac	Benjamin Koepke, M.D., McBain

Now- All cold symptoms can be controlled



Provides Triaminic for more complete and more effective relief from nasal and paranasal congestion because of systemic transport to *all* respiratory membranes—without drawbacks of topical therapy.†

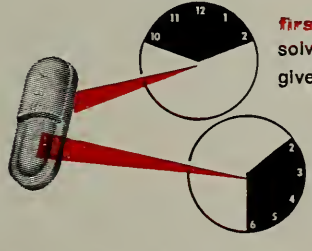
Provides well-tolerated APAP (N-acetyl-p-aminophenol) for prompt and effective analgesic and antipyretic action to make the patient more comfortable.

Provides Dormethan (brand of dextromethorphan HBr) for non-narcotic antitussive action on the cough reflex center in the medulla—as effective as codeine but without codeine's drawbacks.

Provides terpin hydrate, classic expectorant to thin inspissated mucus and help the patient clear the respiratory passages.

†Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

Special "timed release" design



first—the outer layer dissolves within minutes to give 3 to 4 hours of relief

then—the inner core releases its ingredients to sustain relief for 3 to 4 more hours

also available for those patients who prefer liquid medication: **Tussagesic suspension**

Each TUSSAGESIC tablet provides:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Dosage: One tablet in the morning, midafternoon and in the evening, if needed.

Tussagesic® *timed-release tablets*

***Contains TRIAMINIC to STOP running noses and open stuffed noses orally**

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

You and Your Business

PRESIDENTS ROOM IN NEW MSMS BUILDING

Louis J. Hirschman, M.D., Traverse City, and B. R. Corbus, M.D., Grand Rapids, were elected chairman and vice chairman, respectively, of the MSMS Committee of Past Presidents at their October 2 meeting in Detroit.

The Past Presidents decided to furnish the Presidents Room in the new MSMS Headquarters Building to be erected in East Lansing.

Past-Presidents Favor M-75

"The Advisory Committee of Past Presidents has observed, with extreme interest, the recent critical campaign waged against M-75. We wish to commend The Council, Officers of the Michigan State Medical Society and the House of Delegates for their long and considered deliberations.

"From our past observations under similar conditions we believe that inequities will be corrected and M-75 will be preserved to render a fuller and better service to our patients and to the doctors of medicine who serve them. Most of all, we are grateful to those who participate and make it possible for our own plan for medical care in Michigan to be preserved.

"Because of the confidence expressed in our House of Delegates, The Council and Officers of our Society, that this communication become part of the minutes of this meeting and be referred to The Council."

—Extract from minutes of meeting of Committee of MSMS Past Presidents, October 2, 1958, Detroit.

NEW GROUP LIFE INSURANCE PLAN OFFERED

Eligible members of the Michigan State Medical Society under seventy years of age may now participate in a new Group Life Insurance plan developed exclusively for MSMS.

A requisite for participation is active membership in MSMS.

According to the State Insurance Code, members of the Wayne County Medical Society will not be eligible for the MSMS Group Insurance, because its own-sponsored plan is already available, having the same benefits.

Approval of the plan by the 1958 House of Delegates climaxed a full year of study by a committee chaired by Milton A. Darling, M.D., Detroit.

In an explanatory pamphlet sent to MSMS members in early January, Doctor Darling wrote, "Your Committee has carefully examined numerous plans of group life insurance and has reached the unanimous conclusion that the plan . . . offers a maximum amount of low-cost protection, and it embodies the features of high-quality insurance coverage. Your Committee recommends this plan to all our eligible members."

The Mutual Benefit Life Insurance Company of Newark, New Jersey, is the underwriting company for the MSMS Plan. Representative is Ben P. Stratton, Lansing.

This program will become effective when a minimum of 25 per cent of MSMS members have elected to participate. A minimum of 60 per cent must be enrolled in order to continue the plan beyond the first year.

Amount of Life Insurance Benefit

The amount of renewable group term life insurance benefit will range from a maximum of $10,000 for younger doctors to a minimum of $2,500 for those in the over sixty-five age group.

Additional Permanent Coverage

Any member of the Society who elects to participate in the plan will immediately be eligible to apply for an additional amount of permanent life insurance coverage. This will be in the form of an individual policy owned by the member. The amount is optional, but following is the schedule as to amounts available without a full medical examination:

Through age 30	Up to $15,000
Age 31 thru 35	Up to $12,500
Age 36 thru 40	Up to $ 7,500

Higher amounts for the above age groups and all amounts for members over forty can be obtained subject to regular medical examination.

Conversion Privilege

Should an individual cease to be a member of the Society, his Group Term life insurance will terminate. However, he will have thirty-one days from the date of termination in which to convert to one of many individual Mutual Benefit life policies—without taking an examination.

Disability Provision

If a member becomes totally disabled prior to his sixtieth birthday, the Group Term life insurance will continue in force without further premium payments. This coverage will continue as long as the insured remains so disabled.

Brochure Available

For more detailed information on the MSMS Plan, a Group Life insurance brochure may be obtained by writing MSMS headquarters in Lansing.

(Continued on Page 160)

TO ACCELERATE THE RECOVERY PROCESS

Established Efficacy and Safety: For five years VARIDASE, in parenteral form, has been used with success in many thousands of cases. Its ability to control inflammation, swelling and associated pain, aid penetration of antibiotics, and hasten healing has been demonstrated in such conditions as severe trauma, infected ulcerations, and following extensive surgery.

Now, Parenteral Effectiveness . . . Simple Buccal Route: New VARIDASE Buccal Tablets give your patients the benefits of systemic VARIDASE therapy without the inconvenience of repeated injections. Absorbed through the buccal mucosa in fully effective amounts, VARIDASE Buccal Tablets may be used as practical adjunctive therapy in your practice within these broad classifications:

Inflammation and edema associated with: trauma and infection • cellulitis • abscess • hematoma • thrombophlebitis • sinusitis • uveitis • chronic bronchitis • leg ulcer • chronic bronchiectasis.

Each VARIDASE Buccal Tablet contains 10,000 Units Streptokinase and 2,500 Units Streptodornase.

Administration: VARIDASE Buccal Tablets should be retained in the buccal pouch until dissolved. For maximum absorption patient should delay swallowing saliva.

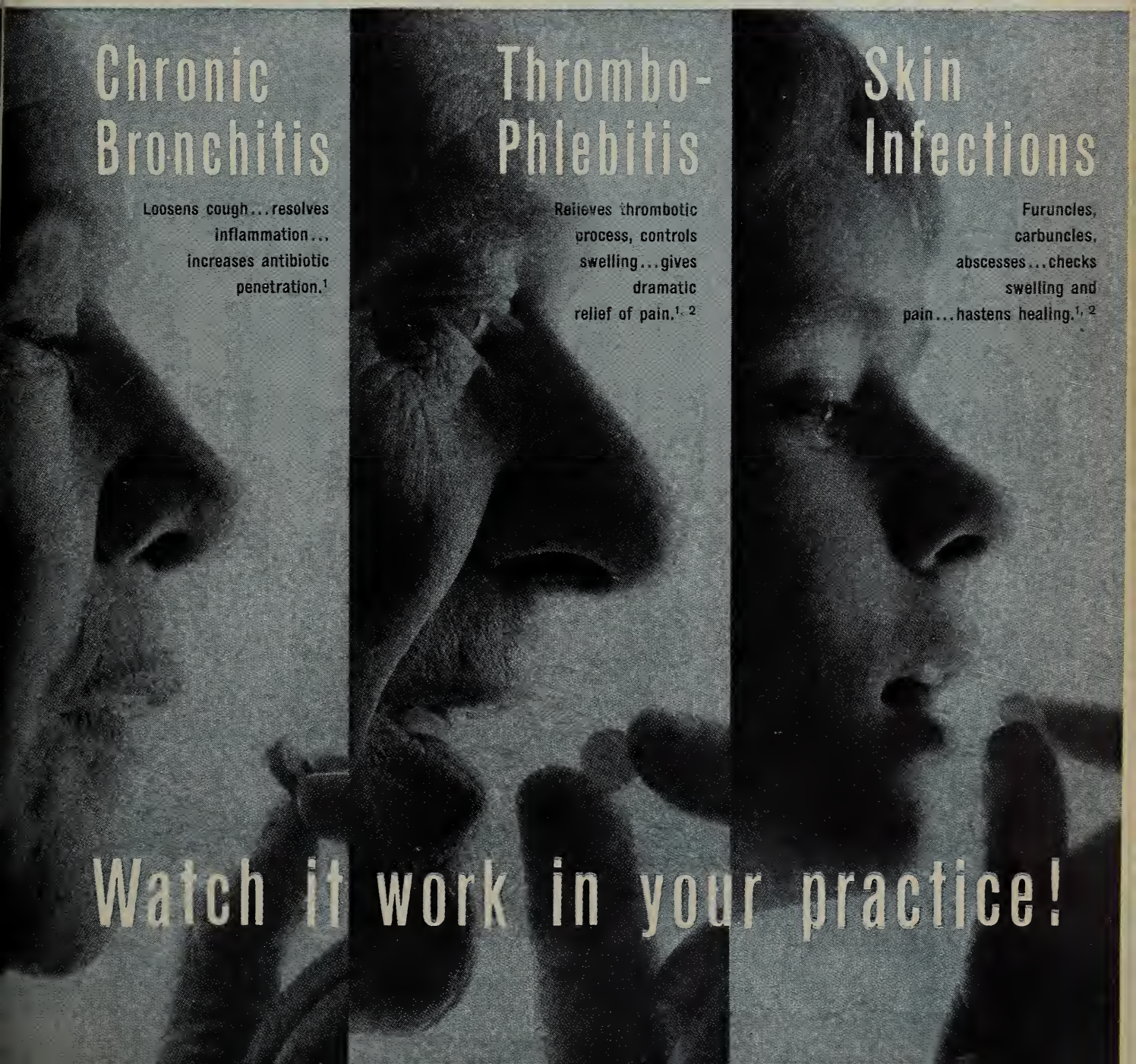
Dosage: One tablet four times daily for a minimum of three days. When infection is present, VARIDASE Buccal Tablets should be given in conjunction with an antibiotic such as ACHROMYCIN* V Tetracycline and Citric Acid.

Available in bottles of 24.

*Reg. U. S. Pat. Off.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

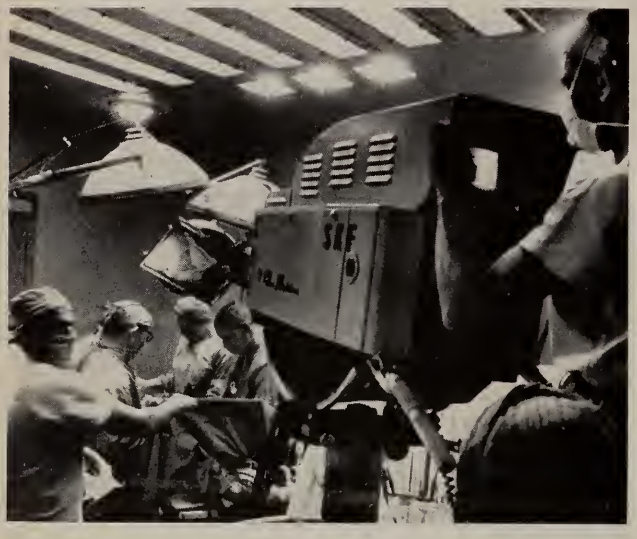


(Continued from Page 156)

TV COLORCASTS SET FOR MCI

Closed circuit colorcasts of scientific importance to doctors of medicine attending the 13th Annual Michigan Clinical Institute in Detroit's Sheraton-Cadillac Hotel have been arranged for each meeting day, beginning Tuesday, March 10.

The programs will emanate from the operating rooms of Providence Hospital through the mobile television facilities of Smith Kline and French Laboratories.



Although the prime purpose of SKF's Color TV Unit is to facilitate postgraduate education of doctors of medicine, on March 9, Monday evening, the public will be given another opportunity to learn more of the intricacies of medical-surgical progress when a cataract extraction is performed before the TV cameras. To explain the delicate procedure, a panel of doctors in an adjoining "studio" will tell the story in everyday language. The event will be transmitted to home receivers by WWJ-TV and several outstate stations.

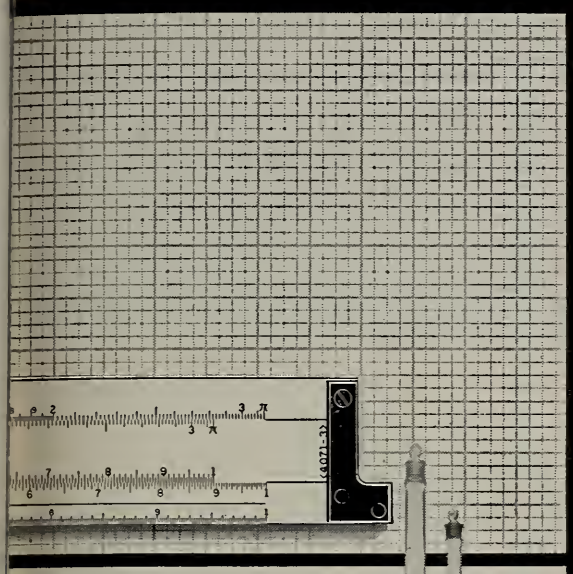
The clinical content of the programs is determined by a committee of the Michigan State Medical Society which serves as co-ordinator with the profession, SKF and the television station. Donald H. Kaump, M.D., is committee chairman.

BIG TECHNICAL EXHIBIT AT '59 MCI

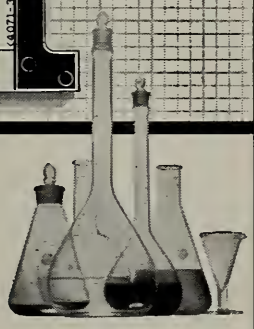
Following is a list of business friends of the medical profession who will participate as exhibitors in the Michigan Clinical Institute to be held at the Sheraton-Cadillac Hotel, Detroit, March 10-11-12-13, 1959:

Booth Number	*Company*	*City*
1	P. Lorillard Company	New York, N. Y.
2	W. B. Saunders Company	Philadelphia, Pa.
3	Hack Shoe Company	Detroit
4	Michigan Medical Service	Detroit
5	Gray Audograph Company	Detroit
6	Coca-Cola Company	Atlanta, Ga.
7	Coca-Cola Company	Atlanta, Ga.
8	Julius Schmid, Inc.	New York, N. Y.
9	Fuller Pharmaceutical Co.	Minneapolis, Minn.
10	Baker Laboratories, Inc.	Cleveland, Ohio
11	C. A. Fisher & Sons	Toledo, Ohio
12	Randolph Surgical Supply Co.	Detroit
13	Randolph Surgical Supply Co.	Detroit
14	Milex Products	Oak Park
15	Health Insurance Council	New York, N. Y.
16	Desitin Chemical Company	Providence, R. I.
17	Sandoz Pharmaceuticals	Hanover, N. J.
18	The Upjohn Company	Kalamazoo
19	Sanborn Company	Cambridge, Mass.
20	Schering Corporation	Bloomfield, N. J.
21	G. D. Searle & Company	Chicago, Ill.
22	Medical Protective Company	Fort Wayne, Ind.
23	A. H. Robins Company, Inc.	Richmond, Va.
24	Testagar & Company, Inc.	Detroit
25	Merck Sharp & Dohme	Philadelphia, Pa.
26	R. J. Reynolds Tobacco Company	Winston-Salem, N. C.
27	Atlas Pharmaceutical Laboratories	Detroit
28	E. Fougera & Company, Inc.	Hicksville, N. Y.
29	Ross Laboratories, Inc.	Columbus, Ohio
30	Smith, Kline & French Labs.	Philadelphia, Pa.
31	Medco Products Company	Tulsa, Okla.
32	A. Kuhlman & Company	Detroit
33	Abbott Laboratories	North Chicago, Ill.
34	Cunningham Drug Stores	Detroit
35	Lederle Laboratories	Pearl River, N. Y.
36	Wm. H. Rorer, Inc.	Philadelphia, Pa.
37	The Stuart Company	Pasadena, Calif.
38	American Hospital Supply	Evanston, Ill.
39	Pfizer Laboratories	Brooklyn, N. Y.
40	V. Mueller & Company	Chicago, Ill.
41	S. J. Tutag & Company	Detroit
42	Parke, Davis & Company	Detroit
43	Parke, Davis & Company	Detroit
44	Pet Milk Company	St. Louis, Mo.
45	Eaton Laboratories, Inc.	Norwich, N. Y.
46	Purdue Frederick Company	New York, N. Y.
47	Miller Surgical Company	Chicago, Ill.
48	Meyer and Company	St. Clair Shores
49	American Cyanamid Company	Danbury, Conn.
50	American Ferment Co., Inc.	New York, N. Y.
51	The Rupp & Bowman Company	Highland Park
52	Wyeth Laboratories	Philadelphia, Pa.
53	Institute of Public Information	New York, N. Y.
54	Ayerst Laboratories	Chicago, Ill.
55	Ferndale Surgical, Inc.	Ferndale
56	Doho Chemical Corporation	New York, N. Y.
57	E. R. Squibb & Sons	New York, N. Y.
58	MSMS Life, Health & Accident Insurance Program	Lansing
59	Marion Laboratories, Inc.	Kansas City, Mo.
60	Standard Process Laboratories	Detroit
61	C. V. Mosby Company	St. Louis, Mo.
62	A. S. Aloe Company	St. Louis, Mo.
63	Eli Lilly and Company	Indianapolis, Ind.
64	Eli Lilly and Company	Indianapolis, Ind.
65	Detroit X-Ray Sales Company	Detroit
66	Detroit X-Ray Sales Company	Detroit
67	G. A. Ingram Company	Detroit
68	G. A. Ingram Company	Detroit
69	Maico Hearing Service	Detroit
70	J. B. Lippincott Company	Philadelphia, Pa.
71	Mead Johnson & Company	Evansville, Ind.
72	Mead Johnson & Company	Evansville, Ind.
73	U. S. Vitamin Corporation	New York, N. Y.
74	Geigy Chemical Corporation	Yonkers, N. Y.

(Continued on Page 166)

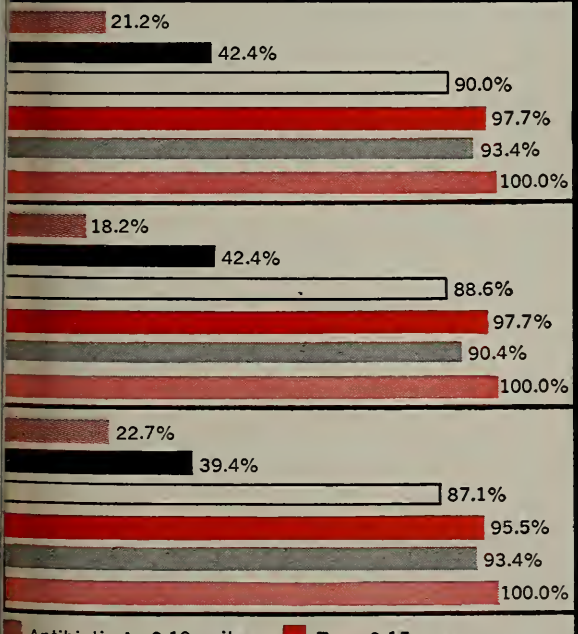


n the aboratory:



ver 90% effective gainst resistant staph

OMPARATIVE TESTS BY THREE METHODS
)ISC, TUBE DILUTION, CYLINDER PLATE)
N 130 STAPHYLOCOCCI[9]



Percentage of organisms inhibited by the range of concentrations listed for each antibiotic.

Other Tao advantages:

Rapidly absorbed—stable in gastric acid,[7] TAO needs no retarding protective coating

Low in toxicity—freedom from side effects in 96% of patients treated; cessation of therapy is rarely required

Highly palatable—"practically tasteless"[7] active ingredient in a pleasant cherry-flavored medium.

Dosage and Administration: Dosage varies according to the severity of the infection. **For adults,** the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. **For children** 8 months to 8 years, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg., bottles of 60. TAO for Oral Suspension—1.5 Gm., 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. Koch, R., and Asay, L. D.: J. Pediat., in press. 2. Leming, B. H., Jr., et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 3. Mellman, et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 4. Olansky, S., and McCormick, G. E., Jr.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 5. Shubin, H., et al.: Antibiotics Annual 1957-1958, New York, N. Y., Medical Encyclopedia, Inc., 1958, p. 679. 6. Isenberg, H., and Karelitz, S.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 7. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy 5:527 (Aug.) 1958. 8. Kaplan, M. A., and Goldin, M.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 9. Truant, J. P.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958.

TAO dosage forms—for specific clinical situations

TAO Pediatric Drops

For children—flavorful, easy to administer.

Supplied: When reconstituted, 100 mg. per cc. Special calibrated droppers—5 drops (approx. 25 mg.) and 10 drops (approx. 50 mg.). 10 cc. bottle.

TAO-AC (TAO analgesic, antihistaminic compound)

To eradicate pain and physical discomfort in respiratory disorders.

Supplied: In bottles of 36 capsules.

TAOMID* (TAO with triple sulfas)

For dual control of Gram-positive and Gram-negative infections.

Supplied: Tablets, bottles of 60. Oral Suspension, bottles of 60 cc.

Intramuscular or Intravenous

For direct action—in clinical emergencies.

Supplied: In 10 cc. vials.

*TRADEMARK



New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

(Continued from Page 160)

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of December 10, 1958

Seventy-two items were presented to the Executive Committee of The Council at its December meeting. Chief in importance were

- **Report** on December 1958 AMA House of Delegates actions was presented by Wm. A. Hyland, M.D., Grand Rapids, Chairman of the Michigan Delegation. The Executive Committee of The Council gave particular attention to the report of the AMA Commission on Medical Care Plans which read in part:

  "We respectfully suggest to constituent associations that their attitudes will be clarified if they arrive at some decision in regard to the following basic points: (a) Free choice of physician—acknowledging the importance of free choice of physician, is this concept to be considered a fundamental principle, incontrovertible, unalterable, and essential to good medical care without qualification? (b) closed panel systems—what is or what will be your attitude regarding physician participation in those systems of medical care which restrict free choice of physician?" The Executive Committee of The Council referred these matters for study to a committee under the chairmanship of J. S. DeTar, M.D., Milan.

  Health Care of the Aged also was thoroughly discussed by the Executive Committee of The Council which adopted the following resolution (identical with the AMA resolution adopted in Minneapolis):

  "For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health insurance or prepayment plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens.

  "Therefore, The Council on Medical Service recommends to the House of Delegates the adoption of the following proposal: That the American Medical Association, the constituent and component medical societies, as well as physicians everywhere, expedite the development of an effective voluntary health insurance or prepayment program for the group over sixty-five with modest resources or low family income; that physicians agree to accept a level of compensation for medical services rendered to this group, which will permit the development of such an offering at a reduced premium rate."

  The Executive Committee urged the Medical Care Insurance Committee immediately to study and develop such a contract in accordance with the AMA policy.

- **Medicare.** It was reported that the amount of recent cut-back in services, since October 1, represented at the present time about 50 per cent. It was reported that the AMA House of Delegates took notice of the restrictive changes in the Medicare program; expressed regret at the substitution of federal facilities for private care in the areas mentioned, and urged the Association to encourage the re-establishment of services under a *free choice principle* to accomplish the original intent of the Act.
- **Veterans Administration Home Town Medical Care Program.** A new schedule on Veterans Administration is being studied and the Executive Committee of The Council requested Michigan Medical Service, as its fiscal agent, to submit to the Veterans Administration a schedule of fees based on the Medicare schedule as the basis for negotiating a new fee schedule to be effective July 1, 1959.
- **Committees.** Four committees were appointed (a) Liaison Committee with Michigan Chapter, Health Insurance Council: G. W. Slagle, M.D., Battle Creek, Chairman; D. W. Thorup, M.D., Benton Harbor; M. L. Lichter, M.D., Detroit; M. A. Darling, M.D., Detroit; B. L. Masters, M.D., Fremont. (b) Committee to Study Feasibility of Greater Participation in Blue Shield: B. L. Masters, M.D., Fremont, Chairman; C. A. Payne, M.D., Grand Rapids; A. E. Schiller, M.D., Detroit; George C. Wilson, M.D., Clinton; and F. J. Busch, M.D., Saginaw. (c) MSMS Representatives to Planning Committee on Psychiatric Nursing: L. W. Hull, M.D., Detroit; A. Hazen Price, M.D., Detroit; I. A. LaCore, M.D., Pontiac; and Wm. J. Burns, Lansing. (d) MSMS Representatives to Michigan Cancer Co-ordinating Committee: J. W. Hubly, M.D., Battle Creek; W. A. Hyland, M.D., Grand Rapids; H. M. Pollard, M.D., Ann Arbor; G. S. Wilson, M.D., Detroit. J. J. Lightbody, M.D., Detroit, was appointed as MSMS representative to National Foundation Health Scholarship Committee.
- **Permanent Advisory Committee on Fees—personnel changes.** The Speaker announced the personnel of the House of Delegates Permanent Advisory Committee on Fees: G. C. Penberthy, M.D., Detroit, Chairman; L. J. Bailey, M.D., Detroit; H. F. Falls, M.D., Ann Arbor; H. W. Harris, M.D., Lansing; L. R. Leader, M.D., Detroit; Wm. M. LeFevre, M.D., Muskegon; M. L. Lichter, M.D., Melvindale; J. W. Rice, M.D., Jackson; R. K. Whiteley, M.D., Detroit.
- **Quarterly Report to Members of MSMS House of Delegates.** The Executive Committee of The Council instructed that the first quarterly report from The Council be sent to all MSMS Delegates on or before January 1, 1959, as instructed by the 1958 House of Delegates.
- **General Chairman of Arrangements for 1959 MSMS Annual Session:** J. W. Logie, M.D., Grand Rapids, was appointed.

(Continued on Page 168)

for depression

▲Deprol▲†

Clinically confirmed in over 2,500 documented case histories[1,2]

CONFIRMED EFFICACY

Deprol ► acts promptly to control depression *without* stimulation

► restores natural sleep

► reduces depressive rumination and crying

DOCUMENTED SAFETY

Deprol is unlike amine-oxidase inhibitors

► does not adversely affect blood pressure or sexual function

► causes no excessive elation

► produces no liver toxicity

► does not interfere with other drug therapies

Deprol is unlike central nervous stimulants

► does not cause insomnia

► produces no amphetamine-like jitteriness

► does not depress appetite

► has no depression-producing aftereffects

► can be used freely in hypertension and in unstable personalities

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each tablet contains 400 mg. meprobamate and 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl).

Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

†TRADE-MARK

CD-7469

Literature and samples on request ® WALLACE LABORATORIES, *New Brunswick, N.J.*

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 166)

- **Financial Reports** were presented and approved after study; bills payable were presented and payment was authorized.
- **The Executive Committee of The Council** approved the Macomb County Medical Society's resolution re need for adequate funds to render necessary medical service to Michigan Crippled Children Commission patients; the matter was referred to the MSMS Legislative Committee for appropriate follow-through.
- **Approval** was given that invitations be sent to guest essayists at the 1959 Annual Session to present scientific exhibits complementing their assembly presentations.
- **Telephone requirements** and interior decoration of the new MSMS building were referred to the Big Look Committee, W. S. Jones, M.D., Menominee, Chairman.
- **Legal Counsel Lester P. Dodd** presented opinions on (a) prescription for liquor (b) routine orders for ante-partum care of patients in labor (c) hospitals being exempt from tort liability (d) liability of medical organizations for income taxes (e) county societys' constitutions and bylaws. Legal Counsel stated that he had spoken before several county medical societies on the subject of "professional liability" and was available for similar invitations from other component societies.
- **The Public Relations Counsel** reported on (a) the probability that certain health agencies would be merged at the decision of the Governor —which would automatically take effect if not vetoed within sixty days by the State Legislature. (b) Public TV show during Michigan Clinical Institute (Monday evening, March 9) over the facilities of WWJ-TV and through the co-operation of Smith Kline & French Laboratories of Philadelphia and Providence Hospital in Detroit. (c) Transcription of closed circuit telecasts (for M.D.'s only) during the Michigan Clinical Institute was authorized by the Executive Committee. (d) Progress report on Michigan Association of the Professions which now is incorporated—with W. M. LeFevre, M.D., of Muskegon as first president.
- **Committee Reports.** The following were given consideration: Advisory Committee of Past Presidents, meeting of October 2—which included offer of Past Presidents to furnish the Presidents Office in the new MSMS building. (b) Michigan Cancer Co-ordinating Committee, October 10. (c) Permanent Conference Committee, October 15—including authorization for MSMS to co-sponsor a joint conference on staphylococcus infections. (d) Study on Prevention of Highway Accidents, October 16. (e) Liaison Committee with the Michigan Hospital Association, October 22. (f) Committee organizational meeting, October 29. (g) Geriatrics Committee, October 29. (h) Iodized Salt, November 4. (i) Committee to Select MCIC Secretary, November 10. (j) Maternal Health Committee, November 12 (with Chairman Francis Jones, Jr., M.D., of Lansing present). (k) Committee to Study Utilization of Vacant TB Facilities for Chronic Diseases, November 12. (l) Chairmen of Councilor District Medical Care Insurance Committees, December 6. (m) Medical Care Insurance Committee, December 6.

DOCTORS' OFFICES IN HOSPITAL-FINANCED BUILDINGS

Non-profit hospitals are jeopardizing their tax-exempt status and the tax deductibility of donations by engaging in commercial enterprises for profit, according to a study recently made by the Foundation for Management Research of Chicago entitled "Doctors' Offices in Hospital-Financed Buildings." This study recommended that hospitals use all available capital funds to expand bed space instead of building hospital-financed medical office buildings which was indicated by the study as "a dangerous tendency in hospital administration."

Listing a number of cities in which this practice has gained a foothold in some hospital, the study states "rents are usually nominal, and these physicians are thus enabled to utilize publicly endowed facilities for private gain. This violates local property exemptions and the Internal Revenue Code, this tendency to engage in profit-making enterprises is slowly undermining the tax-exempt status of non-profit hospitals."

Other objections raised by the Foundation report to hospital-financed offices for physicians' private practice were:

1. It caused dissatisfaction among physicians "frozen out" and faced with "unfair competition" from physicians with subsidized private offices in non-profit hospitals.
2. Hospitals do not benefit significantly from this practice.
3. Permitting private gain through use of publicly-endowed facilities is misuse of public contributions.
4. Using up hospital space or grounds for office buildings may cripple future expansion, needed for bed space.

ASIAN FLU VIRUS

Asian flu shots are vital for pregnant women, persons with heart or lung disease, and the very young or very old, says a specialist at The University of Michigan Medical Center.

Albert V. Hennessy, M.D., Department of Epi-

(Continued on Page 176)

after millions of prescriptions ...an unparalleled safety record

provides fast, high blood and tissue concentrations

Because ERYTHROCIN Stearate is rapidly absorbed, patients get therapeutic blood and tissue levels within 30 minutes. High, peak levels occur between one and two hours—and effective concentrations are maintained for at least six hours. Always at hand, then, against more critical infections is ERYTHROCIN-I.M.—the only intramuscular form of erythromycin available.

backed by years of clinical effectiveness

Actually, every prescription you write for ERYTHROCIN is backed by more than six years of clinical effectiveness against coccal infections. And, with the problem of antibiotic resistance becoming more important daily, the value of ERYTHROCIN as a day-to-day anticoccal agent is dramatically underlined.

supported by an unparalleled safety record

During all the years ERYTHROCIN has been prescribed, serious reactions have been practically nonexistent. Unlike penicillin, allergy is no problem. And, in contrast to "broad-spectrum" action, the normal flora of the intestinal tract is virtually unaltered with ERYTHROCIN therapy.

offers bactericidal activity

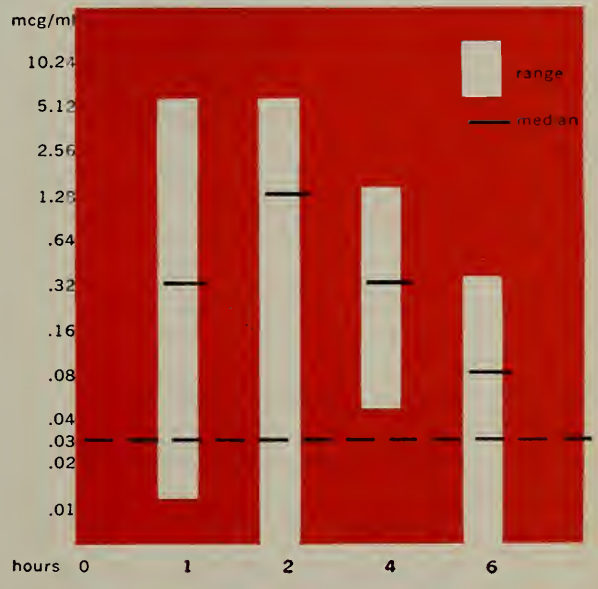
Unlike broad-spectrum antibiotics, ERYTHROCIN is classed as a bactericidal antibiotic. It offers lethal action against common coccic invaders—resulting in prompt clinical response.

provides convenient dosage forms

Usual adult dose is 250 mg. four times daily. Children's dosage is reduced in proportion to body weight. ERYTHROCIN comes in Filmtabs® (100 and 250 mg.), bottles of 25 and 100. Also in oral suspension and for intramuscular use. Won't you prescribe ERYTHROCIN doctor? Abbott

if you're concerned with blood levels...

Dotted line shows actual inhibitory concentrations against most organisms. Note the high ranges and medians of ERYTHROCIN Stearate at one, two, four and six hours. Data represents three studies with adults. Each was given one 250-mg. Filmtab.



And where you need a consistent uniform response that only an injectable form can provide, remember—**ERYTHROCIN-I.M.**(Erythromycin Ethyl Succinate, Abbott) and **ERYTHROCIN LACTOBIONATE.**

®Filmtab—Film-sealed tablets, Abbott; pat. applied for.



there's pain and inflammation here... it could be mild or severe, acute or chronic, primary or secondary fibrositis—or even early rheumatoid arthritis

more potent and comprehensive treatment than salicylate alone

. . . assured anti-inflammatory effect of low-dosage corticosteroid[1]

. . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function.

. . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more manageable corticosteroid dosage

. . . much less likelihood of treatment-interrupting side effects[1-6]

. . . simple, flexible dosage schedule



in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

Subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

Precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.

SCHERING CORPORATION • BLOOMFIELD, N. J.

60-J-648

Schering

ASIAN FLU VIRUS

(Continued from Page 168)

demiology, also urges all other people to be immunized. A flu shot last year does not guarantee immunity against a possible outbreak expected between now and March. A booster gives the best protection.

Many deaths which followed Asian flu attacks last year were caused by secondary invasions of bacteria. Once a person is weakened by influenza, his body is less able to ward off common bacterial infections. Consequently, persons who suffer a bad attack of Asian flu should not return to work without a physician's approval.

Dr. Hennessy urges shots should be obtained before Asian flu gets started. "An epidemic peak is reached rapidly, and blankets a large portion of the population. In last year's epidemic, the U. S. National Health Survey reported 12,000,000 new cases in a single week.

"Influenza occurs almost every year," Dr. Hennessy says. "It has appeared in epidemic form for many centuries. Research on the control of the disease has not yet produced effective and practical chemical preventatives, the only effective measure is vaccination.

For the best protection, a vaccine must now contain a strain of the currently prevalent family of influenza ('A') virus. The influenza virus can change its makeup, he explains. It has done so four times in the last thirty or forty years that it has been studied.

BLUE SHIELD PROFESSIONAL RELATIONS CONFERENCE

More than 250 Blue Shield Plan physician-trustees and executives, as well as state and local medical society officers and secretaries, attended the 1959 Blue Shield Professional Relations Conference held February 9-11 at the Drake Hotel, in Chicago.

This Conference, which brings together representatives of the medical profession and Blue Shield for the purpose of discussing matters of mutual interest, has been held annually since 1951 under the sponsorship of Blue Shield Medical Care Plans, the National Association of Blue Shield Plans.

The 1959 program features as speakers many nationally known medical leaders, including Louis M. Orr, M.D., Orlando, Florida, president-elect of the American Medical Association; Dr. Leland McKittrick, Brookline, Massachusetts, chairman of the AMA Council on Medical Education and Hospitals, and Donald Stubbs, M.D., Washington, D. C., chairman of the Board of Blue Shield Medical Care Plans. Dr. Orr will discuss "The Social, Economic and Political Factors Affecting Medical Care Today;" Dr. McKittrick will talk on "The Criticisms of Blue Shield—What They Signify and How to Answer Them;" and Dr. Stubbs' subject is "Blue Shield's Responsibility to Medicine."

For the first time, individual invitations have been extended to Presidents of all state medical societies to attend the Conference. Their presence is felt to be particularly important this year in view of expected efforts by local medical groups in the year ahead to implement the recent action of the AMA calling for the development of special forms of medical care coverage for senior citizens through voluntary programs such as Blue Shield.

An open invitation is also extended to physicians throughout the country who may be interested in attending the Conference.

AWARDS FOR MANUSCRIPTS ON OBSTETRICS AND GYNECOLOGY

The Division of Obstetrics and Gynecology of the International College of Surgeons announced its second annual competition for two awards for the best manuscripts on a phase of obstetrics and gynecology. The first award will be $500 and the second $300.

The contest is limited to (1) interns, residents, or graduate students in obstetrics and gynecology, or (2) to those engaged in the practice or teaching of the specialty. Contestants must hold a degree of medicine from an accredited college of medicine. Fellows of the International College of Surgeons are not eligible.

Manuscripts of not more than 5,000 words must be submitted on or before June 1, 1959, to Harvey A. Gollin, M.D., secretary of the prize committee, 55 East Washington Street, Chicago 2. For information on contest rules, write to Dr. Gollin.

"The purpose of this contest is to advance the art and science of obstetrics and gynecology in accordance with the principles of the International College of Surgeons and with the primary aim of the College to extend the frontiers and elevate the the standards of all branches of surgery," it was announced by August H. Daro, M.D., Chicago, secretary of the Division of Obstetrics and Gynecology.

FIRST DIRECTORY OF BLOOD FACILITIES

The first comprehensive directory and description of blood facilities and services ever compiled in this country was released today by the Joint Blood Council, a nonprofit national organization with headquarters in Washington, D. C.

It shows the location of facilities, the extent of their operations, how they are organized, what specific services they offer and other information of importance to physicians, hospitals and any

(Continued on Page 178)

in peptic ulcer

REFRACTORY CASES RESPOND TO

NEW

DARICON*tablets

OXYPHENCYCLIMINE HYDROCHLORIDE

POTENT ANTICHOLINERGIC ACTION

curbs secretion when excessive
normalizes motility when overactive

Activity appears to be restricted to the desired site of action.
Predictable therapeutic response in refractory cases.

Potency and Prolonged Duration of Action
10 mg. b.i.d. Average Dose · Supplied as:
10 mg. white, scored tablets

References: 1. Finkelstein, Murray: Journal of Pharmacology and Experimental Therapeutics, in press. 2. Winkelstein, Asher: Paper in preparation.
*Trademark

Pfizer *Science for the world's well-being*

PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.,
Brooklyn 6, N. Y.



FIRST DIRECTORY OF BLOOD FACILITIES

(Continued from Page 176)

person or organization interested in blood and its derivatives.

The directory is based on data obtained from a detailed questionnaire sent to all known blood banks, hospitals and clinics that offer blood-handling services. The questionnaire was sent to 3,150 institutions and 2,202 replied. Those that failed to return the information will have an opportunity to supply it for future directories.

"The directory supplies vital information long needed by physicians, hospital staffs and others associated with the practice of medicine," according to Dr. Leonard W. Larson of Bismarck, N. D., president of the Joint Blood Council. "We now for the first time have a central reference and index to institutions and agencies concerned directly or indirectly with the therapeutic use of blood and its derivatives. We are grateful for the cooperation we received and are satisfied that the information presented is as complete as possible at this time. We are looking forward to listing virtually every blood facility in the United States in future revisions of the directory."

The directory will be distributed free by the council to all institutions and organizations that participated in its preparation, according to Dr. Frank E. Wilson, executive vice president. Others may obtain it at the cost price of $1.50 each from the Joint Blood Council headquarters, 1832 M Street, N.W., Washington 6, D.C.

The council was formed three years ago by the American Association of Blood Banks, the American Hospital Association, the American Medical Association, the American National Red Cross and the American Society of Clinical Pathologists. Its primary purpose: "To establish a national blood program in order to assure an adequate supply of blood and blood derivatives to the civilian and military population at all times of peace or emergency and to take all appropriate action in connection therewith."

The directory is presented in three parts: Part I lists all 2,202 cooperating blood facilities, with detailed description data, in alphabetical order by state and city. Part II is a summary of all "community blood banks" which are not administratively controlled by specific hospitals or the American Red Cross. Part III lists all Red Cross regional centers, with appropriate data. The detailed classification of facilities indicates the degree of specialization in the administration, processing and storage of blood and its derivatives as well as the extended coverage offered by it.

Information brought out in the survey and directory includes the following:

1. Of the facilities listed, 1,832 administer whole blood. Also 1,287 administer plasma, 1,021 serum albumin, 994 packed red blood cells and 311 platelets, with many of the facilities engaging in a number of these activities.

2. Many of the institutions also are engaged in storage of other body tissues. Artery banks are maintained by 116, eye banks by thirty-six, bone banks by 200, skin banks by twenty-four and mother's milk banks by twenty.

3. A total of 1,325 blood banks store whole blood, record donor histories, and have as their primary purpose the recruitment of donors and complete laboratory blood processing. The directory shows whether these banks obtain less than half or more than half their blood from their own recruiting efforts and whether blood processing includes compatibility (crossmatch) testing.

4. Two out of every three organizations listed have no reciprocity system for the exchange or re-supply of blood. Of the remaining one-third, which do participate in a national system, 470 use the American Red Cross system, 240 that of the American Association of Blood Banks, and 110 use both systems.

5. Community blood banks and Red Cross regional centers present an entirely different picture with regard to reciprocity, as shown by these data:

Reciprocity System	*Community Banks*	*Red Cross Centers*
American Association of Blood Banks	62	0
American Red Cross	0	41
Both AABB and Red Cross	19	8
None	18	0
Total	99	49

The directory is the forerunner of a complete report of the activities of most organizations engaged in blood services of any kind. This forthcoming report will present the details of operations, quantities and persons serviced, practices and procedures, and other statistical data which were collected during 1957 and 1958 under a project directed by a committee of eminent physicians and scientists.

Members of the Project Advisory Committee are: Frank E. Wilson, M.D., chairman; Kenneth M. Brinkhous, M.D., Roger W. DeBusk, M.D., David N. W. Grant, M.D., James J. Griffitts, M.D., Max M. Strumia, M.D., Frank G. Dickinson, M.D., and George W. Hervey, M.D.

Officers and directors of the Joint Blood Council are: President Leonard W. Larson, M.D.; Vice President LeRoy E. Bates, M.D.; Executive Vice President-Secretary Frank E. Wilson, M.D.; Treasurer Oscar B. Hunter, Jr., M.D. Other Board members are: Kenneth B. Babcock, M.D., James D. Barger, M.D., Sam T. Gibson, M.D., W. Croft Jennings, Frank W. Konzelmann, M.D., Walter B. Martin, M.D., and E. Eric Muirhead, M.D.

(Continued on Page 182)



MERCK SHARP & DOHME
Division of Merck & Co., Inc. • Philadelphia 1, Pa.

RATIONALE

"It appears that there is now available in chlorothiazide a drug which is a specific antagonist to the abnormal sodium metabolism seen in the vast majority of hypertensive patients. The use of this agent [DIURIL] may stand the test of time as the most vital and specific weapon in the treatment of a relatively non-specific disease in which the only specific abnormality known is one of sodium metabolism. . . . Chlorothiazide now appears to be the drug of choice when initiating therapy in the average hypertensive patient."

Reinhardt, D. J.:
Delaware State Med. J. 30:1, January 1958.

RESULTS

"We have presented a group of 48 patients previously treated with a variety of antihypertensive agents." "Upon the addition of chlorothiazide to their regimens, there was realized an additional blood pressure lowering effect of 23 mm. systolic and 11 mm. diastolic."

Bunn, W. H., Jr.:
Ohio State Med. J. 54:1168, September 1958.

MINIMAL SIDE EFFECTS

"There is an extremely wide range between therapeutic and toxic dosage, and no significant side effects and no sensitivity to the drug as yet have been observed."
". . . it seems desirable to add potassium chloride 4 Gm. per day . . . in cases of hypertension. . . ."

Herrmann, G. R., Hejtmancik, M. R., Graham, R. N. and Marburger, R. C.:
Texas State J. Med. 54:639, September 1958.

dosage: one 250 mg. tablet DIURIL b.i.d. to one 500 mg. tablet DIURIL t.i.d.

supplied: 250 mg. and 500 mg. scored tablets DIURIL (Chlorothiazide) bottles of 100 and 1000.

DIURIL is a trademark of Merck & Co., Inc.
© 1959 Merck & Co., Inc.
Trademarks outside the U.S.:
CHLOTRIDE, CLOTRIDE, SALURIC.



KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

(Continued from Page 178)

MICHIGAN'S BLOOD BANK WORKSHOP

The third annual workshop in blood bank methods was given October 16-17, 1958, for 30 participants. Exercises included ABO grouping, Rh typing, cross match technic, identification and titration of antibodies, and screening of group O blood for use as universal donor units. Five of those enrolled were residents in Clinical Pathology; the remainder were blood bank personnel, about half being MT (ASCP). Each participant took home two serums containing antibodies and a commercially available panel of test cells capable of identifying the unknowns. This exercise as homework is regarded as of great value in assessing how well we may have succeeded in our didactic efforts. The enclosed copy of the manual we used may be of interest to you. The copy of the program is correct except that Steffanini failed to appear, and if it is to be published, his paper should be deleted.

The annual business meeting covered the following topics. There are 191 individual and 61 institutional members. During 1958 certificates were issued to institutional member banks with provisions for annual sticker renewals similar to that used by the Registry of Medical Technologists.

The Blood Bank inspection program was begun on a voluntary basis, with members of the North Central Clearing House being inspected first. Renewed effort to bring in other hospitals as institutional members has been augmented by personal appearance discussions before meetings of the several districts of the Michigan Hospital Association. Copies of the Joint Commission *Standards for a Transfusion Service* have been distributed to all hospitals.

A brief summary of 1958 activities includes:

1. An extension course entitled Blood Group Genetics was given by Dr. Emmanuel Hackel of Michigan State University sponsored by the MABB was given in Detroit, Flint, and Grand Rapids.

2. A Donor Clinic was presented in April at St. John Hospital, Detroit.

3. A Seminar with demonstrations in coagulation studies was given in January at Henry Ford Hospital.

Projects slated for early consideration include:

(a) An elementary workshop in basic methods of blood bank laboratory technic.

(b) Publication of a *Bulletin* for the Association.

Officers for 1959 are: Elmer R. Jennings, M. D., Detroit, president; Harold E. Bowman, M. D., Grand Rapids, president-elect; Frank R. Ellis, M.D., Eloise, vice-president; Lawrence W. Gardner, M.D., Detroit, secretary-treasurer.

Say you saw it in the Journal of the Michigan State Medical Society

Allergy-free...all day... with this much medication



Typically, the allergic patient can enjoy a whole day's freedom from symptoms with just one Pyribenzamine Lontab in the morning—a whole night of restful sleep with just one Lontab in the evening.

The outer shell of the unique Lontab actually contains an effective dose of Pyribenzamine which is released minutes after the Lontab enters the stomach. Thereafter, medication is released uniformly and continuously from the specially formulated inner core of the Lontab—sustaining antiallergic effect as long as 12 hours.

For patients who need only periodic medication, regular Pyribenzamine tablets provide fast, dependable action, with a minimum of undesirable side effects.

SUPPLIED: Pyribenzamine Lontabs—full-strength—100 mg. (light blue). **Pyribenzamine Lontabs**—half-strength—50 mg. (light green); for children over 5 and adults who require less antiallergic medication. **Pyribenzamine** Regular Tablets, 50 mg. (green, scored) and 25 mg. (green, sugar-coated).

Pyribenzamine® hydrochloride *(tripelennamine hydrochloride* CIBA) **Lontabs®** *(long-acting tablets* CIBA)

2/2621MK

CIBA SUMMIT, N. J.

Pyribenzamine® Lontabs®

JUST ONE KEEPS YOUR ALLERGIC PATIENT ON A 12-HOUR THERAPEUTIC PLATEAU

Cancer Comment

(This column sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan)

CONTROL OF UTERINE CANCER

The Cytology Program, as it is developing and gaining momentum, concerns itself with every phase of the problem of controlling uterine cancer.

It has now become such an important part of cancer detection that the pathologist has rightly accepted the responsibility of not only making it available but also inducing clinicians to use it on all adult women.

Because of the enthusiastic support of the pathologist, during the past year most of our hospitals with cytologic facilities have increased by approximately 400 per cent the number of cytological examinations. This is as compared with the number of such examinations made a matter of three years ago.

Yet, even in face of such encouraging statistics, we realize we still are not utilizing our pathologists and our laboratory facilities to their peak capacity. We should be, and we could be, doing even better. It is to this end that we are encouraging support of the cytology program by pathologists, tumor registries and physicians themselves.

This interest on the part of the American pathologists is really the most vital part—the actual hub—of the Cytology Program. For the most important individual in obtaining the co-operation of physicians in the use of the vaginal cell examination is the pathologist in the hospital laboratory.

In the United States, as stated above, every trainee in pathology must have a background of cytological training before he can be accepted by his specialty board. This results in all approved training programs being assured of adequate facilities and trained personnel for performing an increasing number of these examinations.

At the present time, pathologists in hospitals are doing everything possible to persuade staff physicians to use cytology as a routine part of their health examination. They accomplish this by reporting interesting cases at the weekly tumor conferences held in the hospitals, by presenting annual statistical reports to all staff members, and by demonstrating facilities they have available for such laboratory work. This method of comprehensive reporting to physicians at hospital levels results in a very high percentage of participation as most physicians in the United States are affiliated with approved hospitals.

HARRY M. NELSON, M.D.





VITERRA® PEDIATRIC

METERED-FLOW BOTTLE

ALLOW 30 SECONDS BETWEEN DISPENSINGS

Special note to doctors who took this tour:

Problems of over- and under-dosage, spillage, spoilage or leakage disappear with VITERRA PEDIATRIC'S new Metered-Flow bottle. Why not consider these advantages when you recommend a vitamin supplement?

ROERIG Rx

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the world's well-being

AMA Washington Letter

THE MONTH IN WASHINGTON

Since the release last summer of the much-discussed Bayne-Jones report on medical education and research, the administration has been reviewing the situation and the possible need for Congressional action on federal aid to the country's medical schools.

Just how strong is its case is likely to be determined in the session of the 86th Congress now underway. In the closing phases of the 85th Congress, a health subcommittee of the House took up the subject amid a feeling at that time that proponents had failed to achieve a sense of urgency.

Another year has rolled around, and the climate may be different. The Bayne-Jones report revived the medical school aid issue. Not since the six-year old report from the Magnuson Commission has a medical report been quoted so extensively. The Bayne-Jones report calls for a doubling of medical research spending by 1970 and the immediate start on at least 14 new medical schools.

Secretary Flemming of Health, Education, and Welfare let it be known soon after taking office last summer that he was not going to allow the report to be "put on the shelf to gather dust."

In an address to the American College of Surgeons, Surgeon General Leroy Burney sketched briefly a plan for another consultants' group not unlike the Bayne-Jones committee. It is now looking into the question of need for more physicians in the next decade. No date has been set for the final report. At its first meeting in December, the committee authorized two staff studies to get underway: on construction costs of newer schools and on the financing of present-day medical school operations.

Chairman of the group is Frank Bane, former executive secretary of the Council of State Governments and active in public affairs for more than 30 years. Other members include Dr. Edward L. Turner, American Medical Association's council on medical education and hospitals; Dr. Ward Darley, Association of American Medical Colleges; Dr. Julian Price, AMA trustee; Dr. Edwin L. Crosby, American Hospital Association; Dr. Vernon Lippard, Yale medical school dean; John McK. Mitchell, Pennsylvania medical school dean; Dr. Isador S. Ravdin, Pennsylvania medical affairs vice president; Dr. Clayton G. Loosli, Southern California medical school dean; Dr. Charles E. Smith, University of California public health school dean; Morris Thompson, president, Kirksville College of Osteopathy and Surgery; Harold Hillenbrand, DDS, American Dental Association; Miss Marion Sheahan, National League for Nursing; Dr. Harold L. Enarson, Western Interstate Commission for Higher Education; Emory Morris, DDS, president, Kellogg Foundation; Douglas E. H. Williams, Dunbar Community Association; Fred C. Cole, Ph.D., Tulane; Robert C. Anderson, Ph.D., director, Southern Regional Education Board; Alvin C. Eurich, Ph.D., vice president, Fund for the Advancement of Education; John G. Searle, president, G. D. Searle & Co.; and the Very Rev. Robert J. Slavin, president, Providence College.

Its final report in all likelihood will have a strong influence on the course of legislation.

NOTES

The Office for Dependents Medical Care has decided that this year's contracts for medicare between the Defense Department and state medical societies and other groups will be negotiated by mail. ODMC felt that the whole field had been pretty thoroughly gone over last year and furthermore that administrative costs are no longer an issue. States will be supplied copies of proposed department changes in contracts 45 to 60 days prior to expiration dates, according to Brig. Gen. Floyd L. Wergeland, head of medicare.

The National Air Pollution Conference held in Washington is beginning to produce results. HEW and the auto industry have worked out an agreement on research into devices for controlling auto exhausts. Exhaust experiments are underway at the Robert A. Taft Sanitary Engineering Center on animals, plants and bacteria.

Federal workers contributory health insurance proposal has taken a new lease on life. The AFL-CIO Government Employees Council which speaks for half a million civilian employees is suggesting the following: (1) the U. S. would pay for two-thirds of basic insurance up to a maximum contribution of $14 a month; the worker would pay the balance and could also broaden coverage for himself and family by paying the extra cost himself, (2) there would be a choice of basic insurance such as commercial Blue Cross, Blue Shield, employee union plans, (3) the government would pay the full cost of major medical insurance but the worker would have to have basic coverage; catastrophic coverage would meet 75% of costs.

Congress has failed in past years to enact legislation. Among the reasons has been failure of the various interested groups to get together on a single bill.



SIGNEMYCIN®

GLUCOSAMINE-POTENTIATED TETRACYCLINE WITH TRIACETYLOLEANDOMYCIN

capsules · oral suspension · pediatric drops

PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.

PR REPORT

SPRING ELECTIONS

This issue of The Journal *is dedicated to the doctor and his citizenship responsibilities. Although citizenship means many things other than simply exercising the voting franchise, no other public act of the doctor has a more direct effect on the community about him.*

Traditionally the spring elections are contests for the University of Michigan's Board of Regents, the State Board of Agriculture (MSU's governing board), the State Board of Education and the Supreme Court.

This year voters will also select the first six members of the newly created Wayne State Board of Governors, as the transition from county to state administration of that institution is now completed.

All of the state's seventy-four circuit judgeships and most other judicial posts will also go on the ballot. Important dates to remember are:

Feb. 14 Last day to apply for Primary absent voter ballot.

Feb. 16 Primary election day.

Mar. 9 Last day to register for Spring election.

Apr. 4 Last day to apply for General absent voter ballot.

Apr. 6 Spring election day.

TV NETWORK TO CARRY COLORCAST OF "CATARACT EXTRACTION" DURING MCI

On Monday evening, March 9, as a prelude to the Michigan Clinical Institute, television viewers throughout the state will see "live surgery" direct from the operating rooms of Providence Hospital, Detroit.

A cataract extract will be performed.

The public telecast will emanate from the facilities of WWJ-TV and will be broadcast simultaneously by the following outstate television stations contacted by MSMS: WOOD-TV, Grand Rapids; WJIM-TV, Lansing; WNEM-TV, Saginaw; WPBN, Traverse City.

Co-operating with the Michigan Clinical Institute in this educational endeavor will be the Smith Kline & French Laboratories of Philadelphia.

D. H. Kaump, M.D., Detroit, is Medical Coordinator of the television presentation.

MEDICAL ASSISTANTS IN-SERVICE TRAINING PROGRAM HAILED

A Michigan educational project, the first in-service training program ever developed for medical assistants, received praise at the second annual convention of the American Association of Medical Assistants in Chicago, October 31-November 2, 1958.

The local program is sponsored by the Michigan State Medical Assistants Society and the University of Michigan Extension Service. Playing a key role in organizing the training program was the Michigan State Medical Society.

Mrs. Catherine Wygant, chairman of the MSMAS Education Committee, reported to the assembly on the new project and outlined the method of development for possible duplication by other state medical assistants societies.

John W. Rice, M.D., Jackson, chairman of the MSMS Advisory Committee to the Michigan State Medical Assistants Society, was elected to serve a three-year term on the National Advisory Committee.

Fifty representatives of the Michigan Society attended the meeting, including official delegates: Miss Donna Hislop, Muskegon; Mrs. Reta Shedd, Albion; Miss Marie Erickson, Saginaw, and Miss Hallie Cummins of Caro. Alternates were: Mrs. Harriet Rolph, Kalamazoo; Miss Elizabeth Kotsch, Detroit; Miss J. Helen Rehm, Ferndale; and Miss Doris Jarrad of Detroit.

Other important Michigan appointments to AAMA for 1959 are: Miss Marlouise Redman, co-chairman of the Program Committee for the 1959 Philadelphia Convention. Miss Hallie Cummins and Miss Doris Jarrad will co-chair the Public Relations Committee and Miss J. Helen Rehm of Ferndale will serve on this committee. Mrs. Wygant was re-appointed to serve on the AAMA Education Committee.

A THOUGHT-PROVOKING COMMENT FROM AN ASTUTE M.D.

"In my judgment, the professional man has the biggest stake in the Spring Elections. To a doctor or lawyer, the heads of our universities and the Justices of our Supreme Court are far more important than even the congressmen and governors of our state. The men that make up the governing boards of our two universities with medical schools are going to decide policies which will influence medicine in Michigan for decades to come. It behooves the M.D., who cares, to vote on April 6—when it counts."

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 FEBRUARY, 1959 NUMBER 2

The State of the Nation's Health and Health Problems

By Leonard A. Scheele, M.D.
Morris Plains, New Jersey

IN THESE troubled times when nation pits itself against nation, political ideology struggles against ideology, and when conquest of outer space appears to be such an important goal, it is worth turning one's attention for a moment to health problems which are universal in nature, and whose solution is hoped for by all nations and peoples. Here, it is my privilege to review a number of health problems, and to point to possible ways to speed up solutions of many of them. Here, we need no difficult and long discussions, arbitration, and international police forces to speed up agreement and solutions. We do, however, need some vigorous action.

Four changing patterns of disease which affect us will be discussed. These are: (1) the pattern of mortality and morbidity, (2) the pattern of diagnosis, (3) the pattern of therapy and follow-up, and (4) the pattern of community services.

Change is one of the unchanging certainties but there is nothing fixed about the direction or the rate of change. In these patterns, we find wide variations but it is safe to say that the rate of change in each of them has accelerated during the past ten to fifteen years.

Delivered at Wayne State University College of Medicine Alumni Association 90th Anniversary and Clinic Day, May 7, 1958.

Dr. Scheele is President, Warner-Chilcott Laboratories, Morris Plains, New Jersey; formerly, Surgeon General, U. S. Public Health Service.

The Pattern of Mortality and Morbidity

Our knowledge of the patterns of mortality and morbidity (illness) is derived chiefly from the certification of the causes of death by physicians, and from their reports of cases of certain diseases to state agencies. For reasons I shall discuss later, mortality data are more complete and up-to-date that much of the data on morbidity.

The mortality experience over the past thirty years shows significant changes. The trend in age-adjusted death rates has been downward, but since about 1938, the rate of decline has more than doubled. The total rate in 1952 was about eight per 1,000 population as compared with thirteen per 1,000 in 1925.[1]

Males have experienced higher death rates than females throughout the period, but it is of particular significance that the difference has increased by about 20 per cent. The ratio of female to male deaths was 1:1.1 in 1925, and in 1952 it was 1:1.5. Some of this differential may be explained by the sharp reductions in female mortality due to puerperal septicemia and other complications of pregnancy. However, for reasons not yet fully explained, male death rates from all forms of cancer and certain cardiovascular diseases are strikingly higher than female rates.

The rate of decline in total mortality has been most marked in the younger age groups with little, if any, change in the trends for persons over

sixty-five years of age. Again, when we consider specific causes of death, we find that the major reductions have occurred in mortality due to infectious diseases. For example, mortality from common infections of childhood has been reduced by 80 per cent among children under fifteen years of age in the past decade.

Other gains in the same period include: a drop in the total death rate from acute rheumatic fever by 73 per cent; from pneumonia and influenza, by 56 per cent; and from syphilis, 63 per cent. Tuberculosis mortality has experienced spectacular reductions; in the past five years, an annual decline of 20 per cent has been recorded.

It is customary to emphasize that current high death rates due to chronic diseases are associated with the aging of the population. This is true and concern for older persons, that is, sixty-five years of age and over, is justified by the inordinately high rates in these age groups. However, the pattern of mortality reveals that as we control infections, we are likely to see more cases of chronic disease in younger age groups.

For example, heart disease is the leading cause of death at all ages from twenty-five years onward. Twenty-seven per cent of all cardiovascular deaths occur among men and women in the prime of life, forty-five to sixty-four years of age. Cancer and other malignant tumors are among the leading causes of death in every age group from one year onward.

Congenital malformations are a major cause of death among children under fifteen years of age, and in infants under one year they take an enormous toll, second only to conditions associated with pre-maturity. In this connection, it is worth mentioning that 70,000 stillbirths are reported annually—a vastly under-reported loss of life due to conditions not yet fully understood.

Mortality data give us no real measure of the changing patterns of disease or of the consequences of sickness and injury. No State public health laws and regulations require the reporting of all infectious diseases and only a few states require the reporting of cancer, rheumatic fever, and occupational diseases. Epidemiologic studies and sickness surveys provide the most significant information on the incidence, prevalence, and severity of disabling conditions. However, studies of this sort usually cover relatively small populations and are conducted sporadically. The Public Health Service is now collecting data and will report periodically on sickness in the United States, especially as it results from chronic diseases. This was an excellent step which had been long overdue.

The incidence of infectious diseases over the past thirty years[1] stimulates some interesting speculation. Here we are dealing with the interaction of at least two biological universes—the universe of the pathogenic organism and the universe of the human host. Changes in either universe will be reflected by changes in the interaction. Genetic and environmental factors in both universes are involved and both the natural and the social environment must be taken into account. Occasionally, infections appear and disappear without satisfactory explanation. For example, Von Economo's, or lethargic encephalitis appeared in this country for the first time at the close of World War I, reached its peak in the 1920's, and then simply disappeared, for unknown reasons.

Man-made changes, however, have produced the most striking effects on the incidence of infectious diseases. It is believed that medical intervention through vaccination has been the principal factor in the disappearance of smallpox from this country. The few cases with confirmed diagnoses that occur annually invariably prove to have been contracted outside the United States. Very much the same is true of locally acquired malaria, and in this instance the disappearance of the parasite is due chiefly to direct attack on its vectors, anopheline mosquitoes.

Diphtheria and typhoid fever have declined rapidly to the point where increasing numbers of private practitioners and health officers have never seen a case of either disease. I might say that many medical schools and teaching hospitals are experiencing a similar dearth of clinical material in other common infections, such as scarlet fever, streptococcal sore throat, meningococcal meningitis, measles, and whooping cough. Little reduction in the incidence of these infectious diseases has been observed, but the trends in case fatality rates indicate a significant reduction in the numbers of cases requiring hospitalization. With a wide choice of effective therapeutic agents at their command, physicians are now able to control these diseases swiftly.

There is, however, a group of infectious diseases, all of viral etiology, which present a tremendous challenge to basic, clinical, epidemiologic, and developmental research. Over the past thirty years,

there has been little or no recognized change in the incidence of such viral infections as the common cold. On the other hand, there have been striking increases in the incidence of poliomyelitis and infectious hepatitis. In addition, certain viral pathogens have been identified for the first time within the past ten years, although many of these may have been present for a long time. These include the Coxsackie viruses and the APC or adeno viruses, all associated with relatively minor upper respiratory diseases. In recent years, primary atypical pneumonia has also been associated with as yet unidentified viruses. These little-understood infections cause a great deal of sickness and cost the nation some 100-million days of productive work annually.

Research on viral diseases is of tremendous importance. These infections undoubtedly account for a large proportion of the illnesses the physician is called upon to diagnose and treat. With rare exceptions, diagnostic, prophylactic, and therapeutic techniques leave much to be desired. We can, however, expect rapid improvement in techniques to prevent and treat viral diseases from the intensified research now in progress. Paralytic poliomyelitis, for example, can now be prevented by vaccination. A vaccine for several strains of adeno virus has been tried successfully, and influenza vaccine was successfully used last fall and winter.

Research on infectious diseases generally must continue. While it can be said that most of these diseases have lost their sting, we must not let the bars down. We think of diphtheria and smallpox as things of the past. They won't be if we become negligent and don't have children immunized. We were horrified to see a major outbreak of diphtheria in Kentucky two years ago and to see a report just before that on a number of recent cases in Detroit. These occurred in local areas where the number of children who had been immunized was small. Typhoid can break out if our water and milk supplies are not kept clean. We need vigorous and well supported programs in our official health agencies.

We need to use techniques that are known to us. One that comes to mind is the control of dental caries. Nineteen out of twenty people develop tooth decay. With our present large population and the limited number of dentists, new cavities are occurring faster than they can be filled. The cost of dental care was approximately 16 per cent of the sum spent for total health care by families last year. This made the cost of dental care approximately $1.5 billion. However, something can be done about reducing this toll in the future, and many communities which did not have natural fluorides in their water as some others did, have restored this missing element, so that all may benefit from it. The addition of one part per million of fluorine to our drinking water will reduce caries in our children by as much as 60 per cent.

This procedure has been carefully and scientifically studied and has been shown to be safe. That is why our major health organizations, like the U. S. Public Health Service, state and most city health departments, the American Medical Association, the American Dental Association, the American Public Health Association and many others endorse its use. That is why over 1,400 cities with a total population of over 30 million people were using fluoridation at the end of September, 1956. Among the larger cities adopting this preventive dental health measure are Chicago, Philadelphia, Baltimore, Washington, Pittsburgh, Cleveland, Milwaukee, San Francisco, St. Louis and Buffalo.

The Pattern of Diagnosis

I realize that the patterns of diagnosis, therapy, and follow-up are interlocking and that the physician today is confronted with changes in all these aspects of his practice. The problems of diagnosis, however, are of sufficient importance to warrant separate consideration.

Although his clinical impressions and, equally important, his knowledge of the patient are his most valuable assets, the physician is also aware of his need for a wide variety of diagnostic services, both laboratory and consultative. It is not surprising, therefore, that increasing emphasis is being placed on the development of simplified diagnostic techniques which the physician can employ in his office, as well as on improvement of laboratory and consultative services for his use.

We have not made as much progress in these directions as we hope can be made in the near future through expanded medical research and the development of community services by private and public agencies. There have been some notable advances in the past ten years, however.

Screening techniques suitable for the early detection of diabetes mellitus, glaucoma, certain cardiovascular conditions, and certain forms of

cancer have been developed. A number of health departments, professional societies, and voluntary agencies, working together, have sponsored local programs to detect some of these conditions. Case-finding programs in tuberculosis and syphilis have been conducted on a large scale for more than ten years.

There are rheumatic fever clinics in more than 600 communities, sponsored by private and public agencies and offering consultative services to private physicians, as well as auxiliary nursing, social case work, nutritional, and educational services for their patients. Cardiovascular evaluation centers have been set up in a few cities to which physicians may refer patients for a determination of the physical demands of numerous occupations and the capacity of the patient to perform them. In some areas, cardiovascular teams visit rural hospitals periodically to assist physicians there in the use of the electrocardiograph and to provide them with consultative services.

Community mental health services are available in over 1,300 localities. Most of these programs offer psychiatric consultation to local physicians, as well as services to patients referred by their physicians. Although the emphasis in community mental health services in the past has been primarily on emotional problems in children, the trend is now toward services for all age groups.

There are more than 900 cancer clinics in the United States, of which about 260 provide diagnostic services only. In addition to these clinics, tissue diagnostic and cytodiagnostic services are available in many hospitals and laboratories. Twenty-nine states, Alaska, Hawaii, and Puerto Rico provide some type of cancer service or facility. With a few exceptions, state supported services are limited to persons unable to pay for care. However, Louisiana and Wisconsin provide free tissue and cytodiagnostic service for any case, and Maryland provides cytodiagnostic service on the same basis.

Since 1953, a new and enormously valuable type of service has been developed through the cooperation of private and public agencies: namely, the poison control center. These centers are in operation in fourteen cities and as many more communities are engaged in developing centers. Several states have established state-wide poison control services.

Although the centers vary in the extent and type of activity, all of them provide twenty-four-hour central information service on the composition, toxicity, antidotes, and treatment of every kind of poisoning. The need for this type of local service has increased in the past ten years as the number of new chemicals introduced into the home has grown in almost geometric proportion. Physicians who are called on to treat cases involving accidents with chemicals are frequently at a great disadvantage since the offending substance is not always revealed on the container. Even if this is known, information on its toxic properties and appropriate methods of treatment is not to be found in standard textbooks and other sources customarily available to the physician in an emergency.

I might add that the American Academy of Pediatrics and the American Medical Association have provided the professional leadership in this movement, through their committees on poisoning and on pesticides and toxicology, respectively. In the fall of 1955 the American Public Health Association established a subcommittee on chemical poisons. A national poison control center to serve the state and local programs is being established.

Obviously, the services I have mentioned comprise only a small fraction of the resources which the general practitioner may draw upon in difficult diagnoses. Laboratories under various auspices also offer a wide range of diagnostic services. In general, however, such sources tend to be concentrated in the larger communities and it is safe to say that a considerable proportion of the nation's general practitioners do not have the full range of diagnostic services readily accessible, especially when dealing with ambulatory patients.

The improvement of techniques for the early detection of chronic diseases is a primary goal of medical research. If the potentialities of early detection can be fully realized, it seems probable that we shall have a favorable prognosis in a much larger proportion of the cases of chronic disease. More cases will be found in the earliest stages and it now appears that a large proportion of them will be found in younger age groups than are usually reached by conventional diagnostic methods.

The majority of cases of cancer, cardiovascular disease, diabetes, and other important degenerative conditions are diagnosed for the first time in persons forty-five years of age and over and they are first diagnosed in moderately advanced or well advanced stages.

The experience of the National Cancer Institute with the Papanicolaou cytologic test in the detection of carcinoma of the uterine cervix indicates that the disease can be detected with this technique in the earliest, pre-invasive stage. Furthermore, data[2] on approximately 100,000 women show that pre-invasive cervical cancer exists in larger proportions among younger women than has been supposed. Nearly 70 per cent of the pre-invasive cases were detected in women under forty years of age, with the surprising rate of 28 per cent in the third decade, twenty to twenty-nine years.

In contrast, morbidity (illness) surveys show that only 22 per cent of localized cervical cancers and only 15 per cent of metastatic cases are diagnosed by conventional methods in women under forty. On the average, an interval of about fifteen years occurs between the development of intro-epithelial tumors and the appearance of localized cervical cancer. The wide use of the Papanicolaou test thus would afford an opportunity to reduce drastically the second most important cause of cancer deaths in women.

Data available from autopsy series and morbidity surveys indicate that at least 15 per cent of occult cases of adenocarcinoma of the prostate are found in men under fifty, in contrast with less than 2 per cent of the clinically evident cases first diagnosed. The average interval in this instance is estimated at six years.

Cytologic examination of prostatic secretions and small-punch biopsy of the prostate are under intensive study and both techniques show some promise of development for early detection. With a suitable technique, it is possible that many more occult cases can be discovered and that a larger proportion of these cases may be found in men younger than the average now reaching diagnosis.

These are a few examples of progress in early detection techniques. There are others and many more will be developed.

The Pattern of Therapy and Follow-up

There is general agreement that advances in the preventive-curative-restorative treatment of diseases and injuries during the past ten or fifteen years have exceeded all such advances in the preceding history of medicine. One has only to mention sulfonamides and antibiotics to experience a direct sense of what has been accomplished.

Probably everyone knows the impact of antibiotics on practice by the nation's physicians. But antibiotics are only part of the tremendous expansion in the field of chemotherapy. In almost every major category of disease, including some mental diseases, the physician now has a choice of useful drugs which, although not always specific or definitive, are certainly more helpful than any he and his predecessors have had in the past.

Developments in cancer chemotherapy research, for example, have been encouraging and are being stepped up. Drugs and hormonal substances are gaining increasing value in the treatment of the leukemias and other forms of cancers. Some lives are being prolonged and the patients are more comfortable. Actually, through early diagnosis and adequate radiological and surgical therapy, the rate of cure in all cancer cases has increased in the past ten years from 15 per cent to more than 50 per cent.

Ten years ago, the physician faced with a case of hypertension had little to offer, except his personal effort to win the patient's co-operation in following a health-conservation regime. Today, the physician has a choice of several drugs—none of which is perfect, none of which is suitable for all cases, but all of which have proved effective in one way or another. Surgical techniques for the treatment of cardiovascular disorders also have made rapid progress. Certainly, unknown numbers of lives have been saved and many more cardiovascular patients can now live for long periods on almost even terms with their illness.

The recent introduction of potent tranquilizing drugs is also bringing about a notable change in the management of increasing numbers of severely ill mental patients. A surprising number of public mental hospitals are returning patients to their home communities under treatment with a tranqualizing drug. This procedure is undoubtedly a constructive move, both in placing carefully selected patients in an environment more conducive to recovery and in easing the patient-load in overcrowded mental institutions. To be effective, however, such a program should be developed in close co-operation with local health departments and local physicians in areas served by the different hospitals. Several states, for example, have worked out such programs before instituting the policy of releasing patients on drugs. The aim here is to insure that such patients have in their own communities the kind of medical and supportive follow-up they need in order to make a satisfactory and lasting adjustment to family and

community life. While the psychiatrist had the major role to play in the care of mental patient, general practitioners now also have a major role to play in the development of such programs.

If the advances in chemotherapy have revolutionized medical practice, they are also revolutionizing public health work. Chemoprophylaxis is not a new concept, but it could not achieve fully effective application before the antibiotic era. The major effect of penicillin therapy in syphilis control, for example, has been to place the primary responsibility for the control of venereal disease in the hands of the general practitioner.

Within the past seven years, a similar trend has begun in tuberculosis control. Isoniazid alone, and in combination, has been proved effective in the treatment of this disease and large-scale case-finding programs have increased the proportion of minimal cases that come to treatment. Although a period of hospitalization is recommended, the length of stay has been greatly shortened. There is no longer a shortage of tuberculosis beds in most parts of the country. Increasing numbers of hospitalized patients are being released under drug therapy with medical supervision in their own communities.

I don't want to leave a wrong impression. So far I may have seemed to indicate great progress in solving many health problems, especially those in the chronic illness field. To be sure that the record is straight, I want to say that we have only scratched the surface. The scientific understanding of chronic illnesses, including mental illness and of viral diseases, can be likened to an iceberg. One-tenth of the volume of the iceberg is above water—and can be seen and dealt with. The remaining 90 per cent of the bulk is hidden.

The nation's current research program is responsible for our ability to see and deal with the smaller fraction of our major health problems. It is for this reason that increase in the number of our research scientists, expansion of research facilities and increase in research is so vital. There is room and need for everyone to put his shoulder to the wheel in support of medical research.

Many unsolved problems are of major size. Let me mention just one, accidents. There is a very compelling need to stir the nation over accidental injuries. They rank fourth as a cause of death for all age groups and rank first among people one to thirty-six years of age. In 1955 they caused an estimated 9,000,000 injuries and 90,000 deaths. They are said to have cost us $10 billion last year. One person is injured every three seconds and accidents account for more disability in this country than any single disease.

Highways and automobiles are being improved, industrial accident rates are decreasing and home accident rates are being reduced slowly. But we still have a long way to go in our study of the human factors in accidents, especially those on the highway if the toll of dead and injured is to be lowered.

What about rehabilitation? It is estimated that 2,000,000 men and women in the United States need rehabilitation in order to work. About one-fifth of these, or 400,000, are so severely handicapped physically that they need care in specialized facilities. The folks needing rehabilitation have chronic illness or injuries of a handicapping nature. Here again, we have barely scratched the surface.

Mental illnesses and defects compose a national problem of staggering magnitude. At any one time there are 725,000 mentally ill patients occupying 47 per cent of all hospital beds in this country. About 250,000 new patients will have their first admissions to such hospitals this year. At the present rate one in every twelve children born in the United States will spend some time in a mental institution. The nation is currently spending more than $1 billion a year in tax-funds for care of the mentally ill, including cash benefits to veterans with mental disorders.

Although improvements have been made during the past 100 years in the medical, psychological, social and legal approaches to mental illness, we are all aware that progress in this field has been slow—discouragingly, tragically, dangerously slow.

One of the most urgent of all needs in the mental health field is that of reducing the average length of hospitalization of mental patients. This is essential both to improve the prospects for returning patients to their homes and communities and to reduce the staggering financial burden of institutional care, the largest part of which is borne by our state and local governments.

One-fourth of the patients in state mental institutions have been hospitalized for more than sixteen years; one-half for more than eight years; and three-fourths for more than two years. The probability of being released alive from a mental hospital decreases rapidly after the first year. During the first two years, there is now about a 50-50

chance of getting out alive. After two years the odds against being released alive rise 16 to 1. And by the time a patient has been hospitalized for eight years, the odds are more than 99 to 1 that he will die in the institution.

In recent years, a few pioneering mental hospitals have made intensive studies and experimented with methods of improving their treatment and general care of the patients, with a view toward their rehabilitation and discharge to their communities. The institutions which have made these efforts have been highly successful, but we need many more such pilot studies and demonstrations with the same objective.

In addition, we need to experiment widely with other types of care than hospitalization. Many programs could be community-centred rather than institution-centered. Foster home care, for example, "half-way houses" for preventive or supportive treatment, might keep many mentally ill persons out of the hospital. Too many patients—especially elderly people and emotionally disturbed children—are committed to mental hospitals because we do not have the kinds of community programs and facilities that would meet their needs more effectively than the general mental hospital for the insane.

The Pattern of Community Services

The changing patterns of mortality and morbidity, of diagnosis, therapy and follow-up, are slowly changing the pattern of community services. There was a time when patient care was almost exclusively in the hands of the physician. He was doctor, druggist, nurse, and friendly counselor. Today's patterns of disease are forcing the community to put at the disposal of the physician and his patients a variety of relatively new services. I am thinking of health services "in the round"—all those facilities and organized programs under private and public auspices: the hospitals, health centers and related facilities, and the programs operated by voluntary and official agencies and professional societies.

In the earlier era, the pattern of community health services was designed to try to cope with widespread, uncontrollable infections, for the major health problems were then attributable to such diseases. Today, our communities need to develop the kinds of services physicians should have for many of their chronically ill patients: for example, better diagnostic aids; co-ordinated services of other health personnel—nurses, social workers, physical and occupational therapists; housekeeper services; and a central source of information concerning where and under what circumstances various kinds of service and care are available.

In our country, community health services emerge from local initiative, local responsibility, and group action in the community. State or national organizations may supply the stimulus for needed community action and may make available limited resources for community health. However, the effective use of total resources—local, state, regional and national—depends upon the response of each community to its health needs.

The process of community action for health is much slower than individual response to the need for medical care. For example, it has taken us eighty-odd years, since the concept of a local health department supervised by a full-time medical officer of health was first enunciated, to attain coverage of 89 per cent of the population with full-time local public health services in 1956.

Once established, community health services also tend to change at a comparatively slow rate. This is true of both public and private services. In 1933, Mary C. Jarrett published her study of chronic illness conducted under the auspices of the Welfare Council of New York City. In 1956, the Commission on Chronic Illiness, a national organization sponsored by four professional societies, ended its work and published its final report buttressed by detailed reports of conferences and studies conducted during the past seven years. It is indicative of the slow response of communities to changing health needs that many of the concepts enunciated in 1933 had to be re-enunciated and their application urged again in 1956.

The rate of change in community health services has accelerated in a few fields within the past decade. For example, in 1947, it was estimated that 10,000,000 individuals resided in hospital areas that had not a single acceptable general hospital bed; that figure had been reduced to 3,000,000 in 1955.

Special programs sponsored by national voluntary health agencies also have expanded at an accelerated rate in recent years. Practically all of these agencies are concerned with chronic diseases and many stress the organization of community services in their fields of interest. But this

does not mean that the pattern of community health services throughout the country has changed notably as a result of expanded voluntary activities.

Numerous other organizations also provide some types of health service at state and local levels. Many public welfare departments operate medical care programs. School departments may operate health services. Vocational rehabilitation agencies and state institutions also are involved.

Thus the patterns of community health service in the United States are extremely varied. Physicians and their patients in a large city may be presented with many specialized services in addition to the basic hospital and public health services, whereas those in smaller communities may have few or none of them. The more varied the choice, the more difficult it is for the physician, his patients, and the agencies to find their way through the maze of diffuse services. It is natural, therefore, that the move toward more efficient organization has taken place chiefly in metropolitan areas or at the state level.

The size and scope of the chronic illness problem may not be so overwhelming in smaller communities as in the great centers of population. Hence, these communities have an excellent opportunity to develop effective patterns of health service through the co-operation of all interested groups. The less costly types of service for long-term patients—such as home care programs, housekeeping service, and follow-up—are especially adaptable to the needs and capacities of suburban areas, small towns, and rural communities.

Whatever the size of a community may be, the public and the physicians should be in the front rank of leaders, pressing for systematic study of needs and resources, and helping to devise ways and means of meeting community health needs.

The lack of community services is often the crux of the patient's dilemma. He may need a great variety of services which his physician cannot provide. Going without them may do more to change adversely the pattern of his disease than the doctor's best efforts can to change it for the better.

The physician himself may not be familiar with using the skills and abilities of other health personnel. He may not know how or where to find the services his patients need. In such situations, what the economists call "effective demand" will not be large enough. The needed community services will not be initiated, or if begun, will soon be abandoned. The way to express "effective demand" is for the physicians to join with patients and their families in recognizing the needs, using the community services and working for their improvement.

Summary and Conclusions

We have seen that the patterns of disease in the United States are changing. They are changing so rapidly that some diseases have disappeared, and others may disappear in the next two or three decades. General mortality and morbidity rates provide a gross estimate of change, but age-specific rates present a sharper view and show that the major life-saving has occurred in younger age groups. However, the possibilities of preventing or arresting some chronic diseases, chiefly affecting older people, have been increased as a result of medical research.

Advances in diagnostic, prophylactic, and therapeutic techniques enable the physician to deal with many diseases for which no effective methods were previously available. Each year, medical research is yielding new knowledge and techniques which will further accelerate the rate of change toward greater freedom from long-term disabling illness.

The changing patterns of disease also require different patterns of community health service. The current aim of the community should be to make available the full range of facilities and services which enable physicians to deal with the preventive, diagnostic, therapeutic, and restorative aspects of illness. In turn, it is the physician's responsibility to assist in the development of such services and to use them for the welfare of his patients.

References

1. Dauer, C. C. (Novs): A demographic analysis of recent changes in mortality, morbidity, and age-group distribution in our population. Bull. New York Acad. Med.
2. National Institute of Health, National Cancer Insitute, data from.

Marsilid and Pacatal in the Treatment of Depressive Schizophrenic Reactions

By David C. English, M.S., M.D.
Ann Arbor, Michigan

MARSILID (iproniazid, henceforth abbreviated INZ), a new-type "psychic energizer," has been known to be effective in simple depressions, but contraindicated in the more frequent agitated depressions because of its stimulant action. The addition of Pacatal (mepazine), a non-flattening, mildly euphoric tranquilizer, itself effective in mild "reactive depressions," broadens the use of INZ to include the agitated type with both good immediate and long-term results. The immediate relief was necessary since such patients understandably demand fast relief of agitation, which the cumulative INZ action can't provide.

These drugs were used in 180 patients afflicted by moderately severe depressions. This series included both men and women, both on in-patient and out-patient service, over a period of sixteen months. The results are compared with those using four antidepressants, seven tranquilizers and electroshock therapy (EST) in 612 patients during a fifty-four-months period. Although such a combination could not always replace EST in severe depressions, these drugs can safely and conveniently be used on an out-patient basis. Reduction of dosage has not provoked a recurrence in fourteen months, a "curative" effect. Side-effects provided no problem and never required discontinuance of the medication. The energizing and tranquilizing actions are balanced for the best immediate effect, and rebalanced as needed later. The usual initial dose was 25 mg. of both three times a day. Although either drug could show a hypotensive effect, giving both at the same time hasn't caused any difficulty.

Similarly, forty-three patients suffering from acute schizophrenia were treated with fairly good results; the "balancing" of the two drugs was even more important here since INZ alone will increase combative behavior in some patients.

Dr. English is a staff member of Mercywood Neuropsychiatric Hospital, Ann Arbor, Michigan.

General Considerations of Depression and Its Treatment

The incidence of tension has increased in the past fifty years proportionate to the increasingly multi-phasic demands of American culture and has been paralleled by increasing sales of sedatives and tranquilizing drugs. This is true for mild (neurotic or reactive) depressions, but not necessarily for severe ones. The latter require hospitalization, and mental hospital statistics have shown little change in incidence during the last 150 years. Depressions are an entirely different type of illness from that of uncomplicated anxiety; they can occur separately or together. There is no constant direct or inverse correlation between depression and anxiety.

TABLE I. TREATMENT OF DEPRESSIONS
Summary of 612 Cases

Depth of Depression	Treatment of Choice
Severe	Electrostimulation
Moderately Severe	E.S.T. or Marsilid-Pacatal, depending on urgency and economic factors.
Moderate	Marsilid-Pacatal. (Deprol is less effective)
Mild	Interviews and Marsilid-Pacatal or Deprol

The bulk of the treatment here discussed is of "agitated depressions," the most obvious type of which occurs in overly-conscientious, rigid individuals often in the involutional and post-involutional periods, exhibiting severe melancholia and marked symptoms of anxiety and tension, as shown by hand-wringing and floor-walking. About one-third were obviously psychotic and often showed delusions (somatic and/or paranoid), so that they could be mis-diagnosed as "middle life schizophrenics," a rare disease if it occurs at all. Since the rigid pre-morbid personality of these involutional persons is schizoid, such a diagnosis is all

too easy to make. However, such depressive psychoses have a prognosis at least 20 per cent greater than an equivalent schizophrenic illness. Non-agitated "depressions with psychomotor retardation" would theoretically be manic-depressive depressions carrying a good prognosis. Published series of such patients often show poorer results; since mild poorer-prognosis catatonic schizophrenics and such depressives are much alike, including both in a depression series reduces the number that improve. Since both can show delusions, social withdrawal, fair verbal communicativity and no obvious depressed affect, probably the best differential point between near-catatonics and withdrawn depressives is the self-deprecatory ideas of the latter patients.

It is usually true that patients with anxiety alone can be handled on an out-patient basis. Depressive reactions have a "cut-off point" at the "moderately severe level," below which it is imperative that patients be hospitalized because of their great agitation, lack of control of which leads to flight or suicide, and a demand for immediate symptomatic relief. Until such patients are 75 per cent improved, they won't continue any one type of medical care on their own, but instead look for a miracle cure—medical or otherwise.

The distinction between neurotic and psychotic depressions is an arbitrary one, since both lie on a continuum from a very mild reactive or neurotic depression at one end and a severe endogenous or psychotic depression at the other. "Neurotic" and "psychotic" have more concrete meanings than the other terms, but still blend together indistinguishably in a middle zone. Mild neurotic depressions are neurasthenic states, not true depressions—this is the layman's meaning for "depression," a term which cannot be medically delimited because of its wide popular usage.

This is an excellent example of the diagnostic use of INZ, in that psychotic depressions improve with INZ but not with Deprol, while mild neurotic depressions are the reverse.

The original Freudian trilogy of psychoenergetics, psychodynamics, and psychotopology offers an answer to the question as to whether these drugs really affect such an illness, or whether basic personality changes through interviews later are necessary. Drugs don't change psychodynamics but do change psychoenergetics. Psychotherapy is effective only for mild neurotic depressions; psychoanalysts agree that a real depression is an analytical contraindication.[14] Moderately severe psychotic depressives, although obviously disabled and mentally ill, are not "out of contact with social reality" in the sense that delusional and deteriorated schizophrenic patients are.

INZ-Pacatal Mechanism of Action.—At this time, it appears that INZ functions primarily as a monoamine oxidase inhibitor (hereafter MAOI), although it shows di-amine oxidase and probably diphosphorpyridine nucleotidase inhibition as well. Although over thirty theories (both pharmacologic and psychoanalytic) have been offered as explanations for the efficacy of electroconvulsive therapy (ECT) or EST, both pharmacologic and clinical results best support MAOI by EST as its primary mode of action. INZ potentiates norepinephrine; reserpine, acting hypothalamically, decreases norepinephrine, but if given after INZ, increases the INZ effect by epinephrine release. INZ given after reserpine shows no effects. The brain serotonin is quickly released by INZ, but clinical changes correlate with the slower norepinephrine release. Dexedrine has a direct cortical stimulating action (unlike INZ), which is not mediated by MAOI or affected by reserpine. Unlike many drugs which are effective in incomplete dosages, INZ does not produce clinical changes until 50 per cent MAOI is reached, which requires five to ten days. A single dose, therefore, cannot produce a therapeutic change. Although MAOI can be detected one month after INZ has been stopped, the per cent declines continuously during that period. Ultimately, a simple clinical test may be devised for percentage of MAOI, so that INZ could be given only as needed to maintain 50 per cent MAOI much as dicumarol is given now. At present, daily dosage is the only way to be sure of such levels. INZ indirectly prolongs the action of all amines, including drugs, so that Pacatal and Dexedrine given with it act like Spansules.

This pharmacologic INZ-reserpine antagonism, although helpful in understanding INZ effects, is not confirmed in humans, where the two drugs work together like they would separately. No similar work on pharmacologic interactions of INZ and phenothiazines has been published; however, from this clinical study, the only conclusion is that each drug effectively relieves half of a symptom-complex untouched by the other. Relief

of either the anxiety or depression alone still leaves the patient with enough symptoms so that he feels, at best, only slightly improved.

Results in Depressions

This study compares results in 684 consecutive depressed patients on the author's service at Mercywood Hospital from September 6, 1953, through November 20, 1958. No patient was included who was not followed for at least sixty days after improvement. All patients were given routine blood and liver function tests every fourteen days. Improvement was not judged from questionnaires but only from interviews by the author.

In this five-year study, it was found that only INZ with a tranquilizer or EST was effective in relieving agitated depressions. Tranquilizing drugs usually relieve anxiety, but do not reduce the depression which underlies it; such a drug may make the depression worse. Occasionally, when depression is much less than anxiety or secondary to it, as in a reactive depression, tranquilizers seem to improve the depression because the considerable relief of anxiety which they provide allows the release of the ego and its defenses from guarding the self; this is the mechanism of Deprol action.

EST in 842 patients since 1951 was 92 per cent effective in severe depressions with a median improvement time of twenty-two days, as compared with 84 per cent for INZ with Pacatal, 21 per cent with Deprol, and 23 per cent with Pacatal alone. Sixty-seven patients on INZ with EST showed one-third faster improvement than EST alone, cutting the EST required from an average of 8.4 to 5.4 treatments. INZ has been considered to be contraindicated in epilepsy; probably from this came the idea that INZ could not be combined with EST. INZ successfully carried several post-EST patients through relapses which previously would have required additional shock therapy. All EST's were done with a Reiter CW-47D Electrostimulator with IV Surital where possible complications were present. A later publication comparing an equally large ECT series will show that the 10 ma. EST current has been more effective than the 1000 ma. standard 110 v. AC sine wave electroconvulsive current, with less memory loss, less fear of treatment, and better control of respiration. The author has found EST safe and effective in many patients with orthopedic and cardiac conditions where ECT is ordinarily contraindicated.

Results with forty-three patients on Pacatal and Phenelzine (W-1544A), an INZ analogue under investigation with Warner-Chilcott, have been equal to INZ. Deaner (thirty-seven patients) has so far seemed to help only neurotic depressions, has greater efficacy than Deprol, but has produced considerable dizziness. Tofranil (imipramine Geigy, fourteen cases) appears to lie midway between Deaner and INZ. Thephorin, the only stimulating antihistaminic, is a weak MAOI and helps mild depressions, as well as avoiding oversedation in patients suffering from chronic allergies.

The effectiveness of INZ is best shown by its results in a sixty-four-year-old woman, so agitated initially that she required 1200 mg. of IM Sparine daily, where great symptomatic improvement, as well as marked decrease in the amount of tranquilizers needed, had occurred within eighteen days.

The first seventy-nine patients in this series were given 50 mg. t.i.d. This produced mild stimulation in many; most were agitated depressions, with severe insomnia and restlessness. INZ produces a goal-directed euphoria and irritability only when the patient is totally blocked from reaching a relevant goal, as distinguished from the constant non-goal directed irritability of the psychoneurotic. In this first group, for those both less depressed and less agitated, 25 mg. worked equally well. Occasionally, more Pacatal (up to 50 mg. q/3 hrs. while awake) than INZ had to be initially used to calm the patient, but in ninety-six of the 128, equal amounts of both drugs were used. The last 144 patients in the series received 75 mg. Marsilid; this change was made because mild side-effects, though minimal at 150 mg./day, are nearly absent at 75 mg. This change decreased improvement in depressions from 70 per cent to 66 per cent, with an extension of the median day for improvement from twenty-seven to 30.4. days. Dexedrine will often lift a depression temporarily, but at the cost of increasing the anxiety level.

Dexedrine-barbiturate combinations contain an excess of dexedrine and so produce mild stimulations. Either of these drugs is definitely habituating and so both are favorite choices of constitutional neurasthenics. INZ and dexedrine are closely related amines, close enough that JB-516, the fastest-acting INZ analogue, at high dosage levels functions just like dexedrine, and at lower levels,

like INZ. Dexedrine, itself not "curative" but palliative at best, when given with INZ reinforces and accelerates the latter; this was done only rarely in this series because of the resultant tension. Thora-dex is an improvement over dexedrine-barbiturates, and has been reported to be an "effective alternative in borderline EST candidates."[5] This may be true in reactive depressions, but the risk of dexedrine habituation in the neurasthenic patient is considerable. Ritalin, though of little help in psychotic depressions, parenterally is the most effective antagonist for tranquilizer overdosage, while its own dosage can literally be increased to ten times with safety.

Deprol (benactyzine-meprobamate) (sixty-three cases) was more effective in unclassified depressions(38 per cent improved) than any other tranquilizer except Pacatal, but of assistance only in reactive or neurotic (79 per cent improved) depressions or in nearly-recovered psychotic depressions. The author has witnessed five relapses from Deprol already, compared with none from INZ, but could not confirm Alexander's[2] finding of 57 per cent good results in his series of thirty-five patients. The discrepancy in results probably arises from Alexander's treating mild reactive depressions (neurasthenic patients), who would be relieved by the two mild tranquilizers in Deprol, whereas "depression" in most other series means a psychotic depression, which improves only with INZ or EST. INZ and Deprol were used together in a group of thirty-three patients exhibiting moderate depressions, on the borderline between neurotic and psychotic types, with excellent results. The initial adverse effects of each drug were counteracted by the other. Instead of having to decide what type of depression a borderline case is, and then deciding which drug to use, with this combination one can now give both together.

Pacatal has been given to 166 persons diagnosed as depressives, beginning six months before it was marketed and, over-all, it has shown the least flattening, the most euphoria, but in some patients, the most "dry mouth." Eleven per cent showed some dizziness and 14 per cent showed difficulty in visual accommodation. Even massive IV doses produced no "flattening," and hypnosis, but only a calm euphoria. Pacatal alone is an excellent drug for mild depresssions (83 per cent improvement) and produces immediate relief of anxiety. It was not able to bring a severe depression "back from the brink," but did relieve agitation in such patients. Since the first ten patients didn't get relief and the results from the last 156 cases were excellent, this shows again that even detailed studies of small groups have little value. Although aganulocytosis has been reported once with Pacatal, in this series there were no blood or liver function changes, and no clinical evidences of Pacatal toxicity.

Whenever Pacatal alone was not sufficient, the addition of Thorazine produced an excellent mutual synergism which can be "balanced" as with INZ—the more Thorazine, the greater the calming and flattening. Thorazine-Compazine provides still more calming and flattening, and is the strongest combination available. Both combinations do more than the component drugs alone. Tranquilizer Spansules, in contrast to Dexedrine Spansules given for stimulation, showed decreased mild side-effects and more even and effective therapeutic effects. The tranquilizing drugs (Serpasil, Thorazine, Sparine, Vesprin, Trilafon) and the barbiturates and non-barbiturate sedatives, although producing considerable or even complete relief of agitation, produced no change in the basic depression. When the "dry mouth" from Pacatal became severe enough to be objectionable, patients received Vesprin, 25 mg. t.i.d. This produced the good effects of Thorazine tablets but none of its side-effects.

Six cases of obvious jaundice occurred in 288 patients receiving Thorazine as well as forty-two cases of hypotension, fourteen of shock proportions. No jaundice has occurred in 154 patients who had Spansules only. Two hundred and eighty-one patients receiving reserpine showed considerable affective flattening, occasional nightmares, frequent rhinitis, nausea and constipation, as well as two unusual near-deaths when combined with EST. Twenty patients on Moderil showed both fewer good results as well as less side-effects than with reserpine. Sparine showed less flattening than chlorpromazine, an excellent parenteral calming effect, and only 3 per cent hypotension and 9 per cent dermatitis, but, over-all, only a 50 to 70 per cent improvement over Thorazine. Fourteen per cent of 109 patients on Trilafon complained of dizziness and obvious flattening, although less than with the above three drugs. Compazine is the "purest" tranquilizer, but has little central anti-psychotic action. These results, as well as those from the use of ten other tranquilizing

drugs and muscle-relaxants, will be published in greater detail in a later paper.

Rationale of Drug Treatment and Results in Schizophrenic Patients.—Among forty-three persons suffering acute schizophrenias, 65 per cent showed marked improvement, some improvement was noted in 26 per cent, and no change in 9 per cent. (Acute has the usual meaning of a sickness of less than three years.) Here dosages had to be entirely individualized (Chart 1), since these patients all show a varying amount of decreased ego strength. INZ alone given in depressive dosages produced asocial behavior in one-third of the patients (a severe acute catatonic, initially mute and stuporous, smashed two windows). The "up" and "down" effects had to be individually "balanced" every week, at least.

The recent New York Antidepressant Symposium contained eight papers on treatment of schizophrenia, with repeated examples of apparently contradictory results. The explanation given was that the illnesses among patients in the different series weren't comparable. It was agreed that all patients showed changes, but in one-half to one-third, not for the better.

The present series is unique not because of an increased improvement rate (since 65 per cent is common), but because the other 35 per cent didn't get worse. As with the depressives, this resulted from the "balancing" by Pacatal which relieved the increased tension in those who improved, but was even more important in limiting the antisocial behavior in those individuals who didn't. Although Thorazine, Compazine and Vesprin are stronger drugs, and occasionally were necessary, Pacatal produced the best results, since its lack of flattening and occasional euphoria immediately produced a sharp contrast, especially in initially "flat" or catatonic patients. INZ alone provides increased psychomotor activity and pushes the patient toward society (not necessarily toward social reality), but without Pacatal the INZ dosage had to be kept too low to avoid panic states and combativeness.

To say the "Era of Psychochemotherapeutics" was here with only the use of reserpine and Thorazine was premature since it is impossible to believe

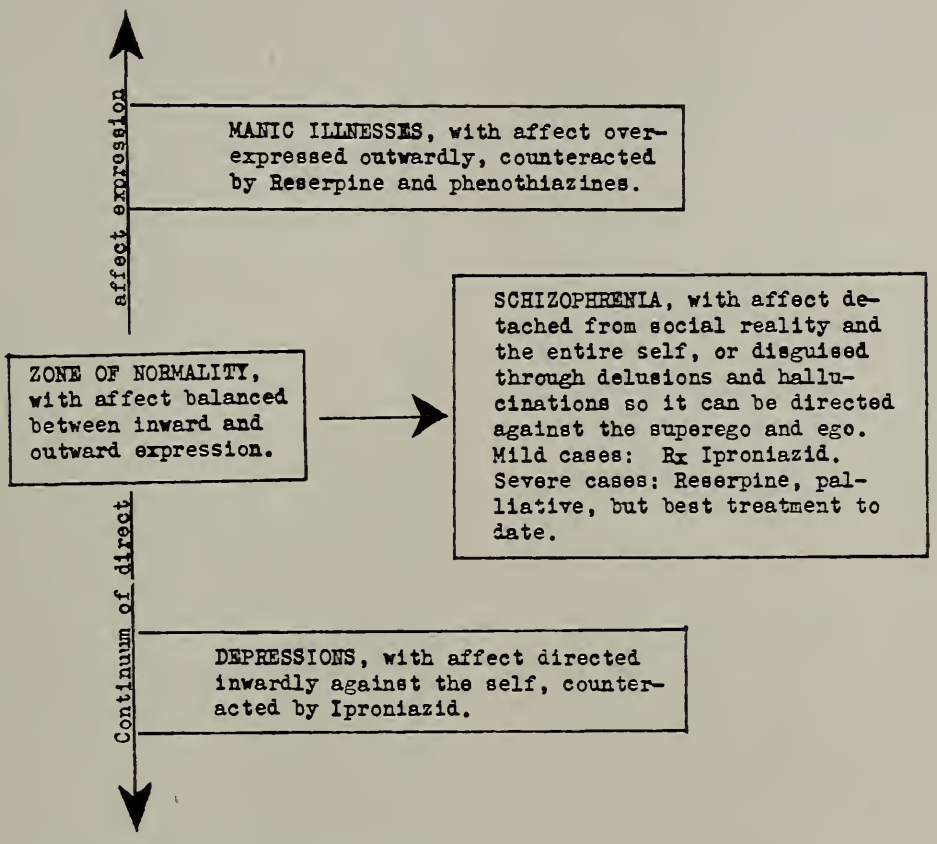


Chart 1. Manic-normal-depressed continuum, with schizophrenia at a tangent to the diseases of normal affect.

that most illnesses could respond to only one type of drug. Most schizophrenic patients are primarily withdrawn and outwardly affectless, a condition certainly not the opposite of manic behavior, nor akin to a depression. Manias and depression do seem to be opposite poles of an affective continuum, with normality in the center; affect is overexpressed outwardly in manic individuals, and inwardly and self-directed in depressive patients. Schizophrenia, with its flattened affect, in this analogy could then only be a vector going off from normalcy, but at right-angles to the manic-depressive dipole (Chart 1).

Because of the INZ-reserpine pharmacologic neutralization, it is simple to insert both drugs in the above continuum, with INZ for depressions and reserpine for mania. Therapeutically, again schizophrenic patients don't fit on the continuum, since they respond to combinations of both drugs. From Chart I alone, INZ is the drug of choice for mild schizophrenia (i.e., those patients with greater ego strength), while reserpine is indicated for chronic cases. Although they become more co-operative under treatment (though often not in full contact with social reality), the mechanism —pharmacologic or otherwise—responsible for the development and deterioration in chronic schizophrenia, still is unknown, and not directly or inversely related to INZ effects. Chart 1 basically shows only that schizophrenia is still the unknown illness; the chart does serve as a convenient frame of reference, from which individual treatment can be planned.

Side-Effects and Contra-Indications

In this group of 243 patients, there were no alterations in liver function tests, no blood changes, and no clinically-observed side effects requiring discontinuance of the drugs. One patient showed a non-protein nitrogen of 58.5 mg. per cent and ++edema with 75 mg. INZ daily; 25 mg. INZ and 100 mg. Phenelzine daily showed no abnormalities and maintained clinical improvement. The recently-suggested serum transaminase tests for liver damage gave normal results throughout in this case. Both INZ and Pacatal in their higher initial doses produced mild hypotension in 20 per cent, which was easily managed with Wyamine 25 mg. t.i.d. The hypotensive effect of both drugs together was no greater than their individual effects. Although two patients on INZ alone showed blood pressure drops of 25 points systolic with dizziness, controlled with Wyamine, most of the patients treated with INZ alone, had less hypotension than is seen with phenothiazines. Although most patients with Parkinson's disease lose tremor control, regardless of antispasmodics, with the development of an agitated depression, three patients who didn't, retained this control while taking INZ and Parsidol. The mild "dry mouth," an atropine effect occurring in 32 per cent of patients (an inconvenience, but one most patients were able to adjust to) was not potentiated by the combination. Pacatal, like all phenothiazines, has definite atropine actions often useful in gastrointestinal complaints; INZ alone has a different mode of action but showed a "dry mouth" in 19 per cent of patients. However, it is not possible to say that all 19 per cent were due to INZ, since many agitated depressive patients complain of a dry month without any medication. Although the author gave INZ to three hospitalized patients with moderate portal cirrhosis and their alkaline phosphatases continued to improve (one initially was 23 Bodansky units) liver damage is still a general contraindication for INZ.

Because INZ shows such prolonged action, it is often given in a single daily dose, which may explain the minimal side-effects in this study, since all 243 received three divided doses to decrease transitory hypotension. It has been stated that INZ is an "addicting" drug; its MAOI produces increased circulating amines and with discontinuance of INZ, it was believed these would be immediately destroyed by MAO. Tuberculous patients showed hyperactivity, vertigo and headache with discontinuance of much higher doses.[7] In this study INZ was cut off suddenly in 201 patients without difficulty because (1) MAO recovers only gradually, and (2) Pacatal was often stopped later. In the other forty-two, INZ was gradually decreased because of the initial severity of the illness or the tenuousness of the recovery.

Patients who have received INZ number over 700,000, while the fatalities possibly relatable to it number only twenty, in many of which other more likely causes were also present. This is 1:25,000 maximum, far less than the 1:1000 ratio usually accepted for ECT. INZ, like cortisone and Thorazine before it, opens up an entirely new pharmacology; like the latter drugs, its therapeutic effects are so marked it should not be given to just any patient, especially without follow-up visits. These are necessary more because the therapeutic

dosage needs adjustment than because of possible side-effects. A new drug goes through three stages: Initially, it is over-used with miraculous results expected. When they don't appear it is almost discarded, only to regain selected usages for specific purposes. INZ has been abandoned by some who have never really used it, but has already been found by an increasing minority to produce totally new and useful results. Many reported "side-effects" have been vestiges of the illness being treated. Most others respond to 10 mg. B_6 t.i.d.; almost all depressive and schizophrenic patients need vitamin supplementation anyway. Ultimately another INZ analogue may replace it (just as the original cortisone and Thorazine have been partially replaced), but INZ-like drugs will always have unique uses in psychiatry.

Summary

Marsilid (INZ) effectively relieved 84 per cent of 180 acutely agitated depression patients in twenty-eight days, as compared with 92 per cent of 842 in twenty-two days with Reiter electrostimulations. Forty-three cases receiving the INZ analogue, Phenelzine, did equally well. Both drugs showed only mild and easily-controlled side-effects. Pacatal gave immediate relief of initial agitation, balanced possible INZ over-stimulation, itself produced some euphoria, and showed no "flattening" action. Pacatal-INZ did not show the universally-found symptomatic exacerbation in one-third of schizophrenic patients given INZ because the Pacatal balanced the INZ energizing to keep all patients within their weakened ego boundaries, so that two-thirds were much improved. INZ provides the most accurate appraisal of schizophrenic ego defenses, and sharpens differential diagnosis within depressions by separating psychotic from neurotic. These, or endogenous and reactive depressions, form opposite ends of a continuum on which Deprol relieves only mild neurotic depressions, an illness close to neurasthenia. Although manic and depressive illnesses form opposite poles of an affect continuum with normalcy between (each illness being relieved by one of the pharmacologic antagonists, reserpine and INZ), schizophrenia, which is helped by combinations of both drugs and fits in the continuum at right angles to the others, is still the "unknown illness." The non-addictive Marsilid, when given with EST, reduces by one-third the EST needed.

References*

1. Alexander, L.: Chemotherapy of depression: Use of meprobamate combined with benactyzine. J.A.M.A., 166:1019-1023 (Mar. 1) 1958.
2. Bowes, H. A.: The ataractic drugs: the present position of chlorpromazine, Frenquel, Pacatal and reserpine in the psychiatric hospital. Am. J. Psychiat., 113:530-539 (Dec.) 1956. (First Pacatal article in Western Hemisphere. Our series of 166 Pacatal patients, herein reported, started in August, 1956.)
3. Board, F.; Wadeson, R.; and Persky, H.: Depressive affect and endocrine functions. A.M.A. Arch. Neurol. & Psychiat., 78:612-620 (Dec.) 1957.
4. Chessin, M.; Kramer, E. R., and Scott, C. C.: Modifications of the pharmacology of reserpine and serotonin by iproniazid. J. Pharmacol. & Exper. Therap., 119:453-460 (April) 1957.
5. Davidoff, E.: Effect of combined chlorpromazine and dexedrine on severely depressed patients. Dis. Nerv. System, 19:249 (June) 1958.
6. English, D. C.: Two discussions. In Antidepressant issue of Ann. New York Acad. Sc., November, 1958, meeting, to be published.
7. Feldman, P. E.: Combined chlorpromazine-mepazine therapy. J. Clin. & Exper. Psychopath., 19:32-37 (Mar.) 1958.
8. Fouts, J. R., and Brodie, B. B.: On the mechanism of drug potentiation by Iproniazid. J. Pharma. & Exper. Therap., 116:480 (April) 1956.
9. Friedhoff, A. J.: Recent approaches to the biology of schizophrenia. J. Pediat., 52:103-110 (Jan.) 1958.
10. Kahn, E.: Order/Disorder. Am. J. Psychiat., 110: 427, 1953.
11. Loomer, H. P.; Saunders, J. C., and Kline, N. S.: Iproniazid, an amine oxidase inhibitor, as an example of a psychic energizer. Report read at Regional Research Conference of American Psychiatric Association, New York, April 6, 1957.
12. Marsilid. (Entire issue of 186 pages devoted to present and possible future uses.) J. Clin. & Exper. Psychopath., Supplement to 19:2 (June) 1958.
13. Oberndorf, C. P., Greenacre, P., and Kubie, L.: Symposium on evaluation of therapeutic results. Int. J. Psycho-Analysis, 29:7 (Jan.) 1948.
14. Saunders, J. C.: Chelation: An integrative chemical concept of psychoses. Read at Second International Congress for Psychiatry, Zurich, Sept., 1957.
15. Schayer, R.; Smiley, R.; Davis, K., and Kobayashi, Y.: Role of monoamine oxidase in noradrenaline metabolism. Am. J. Physiol., 182:285 (Aug.) 1955.
16. Selikoff, I. J.; Robitzek, E. H., and Orenstein, G. G.: Withdrawal symptoms upon discontinuance of iproniazid and isoniacid therapy. Am. Rev. Tuberc., 67:212, 1953.
17. Stimulant effect of deanol—possible precursor of brain acetylcholine. Science, 126:610-611 (Sept. 27) 1957.

*The brevity here is due to:

1. Participation in the Antidepressant Symposium, New York City, November, 1958, provided an exchange of data and theories to date, both published and not, but any one subject was a composite of many sources, few of them explicit.

2. These results, with sixteen months of data on INZ (marketed eighteen months), is apparently the only one to combine it continuously from the beginning with tranquilizers, and the only one at the Symposium where INZ, probably because of constant drug balancing possible only in a private hospital situation, didn't cause at least one-third of schizophrenic patients to get worse.

3. The 169 INZ publications relate only indirectly to this use, combined with Pacatal, in two acute diseases only. Of 207 Pacatal articles, none relate to its use with any stimulant.

Foreign Bodies of the Hand

By Alfred N. Gerein, M.D.,
and Joseph L. Posch, M.D.

Detroit, Michigan

FOREIGN BODIES of the hand must be one of the commonest injuries suffered by man. Certainly almost everyone at some time during his lifetime can recall being the victim of such an injury. Yet, in spite of its frequency, very few papers are to be found in the literature on this subject.

Perhaps nowhere in the field of surgery have the laity excelled more and achieved such uniform success as in the removal of foreign bodies of the hand. Where the lay surgeon has failed at home, the physician has been successful in his office. However, occasionally, because all previous attempts have been unsuccessful, or, because of the seriousness of associated injuries, the patient is admitted to a hospital for removal of the hidden object.

In view of the sparseness in the literature and because of some very unusual foreign bodies of the hand encountered recently at the Grace Hospital, it was thought timely to review the foreign bodies of the hand admitted to the central unit from 1949 to 1958.

A foreign body of the hand is any substance introduced into the hand, accidently or intentionally, which may or may not give symptoms. These substances are either organic or inorganic, radiopaque or radiolucent.

From 1949 to 1958 there have been eighty-eight admissions to the Grace Central Hospital with foreign bodies of the hand. The right hand was involved in forty-eight instances; while the left hand was involved in forty. The youngest patient was two and one-half years of age, and the oldest patient was seventy-two years. There were fifty-six male and thirty-two female patients. The average hospital stay was 3.6 days.

Presented at the Annual Meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

From the Wayne State University Surgical Service, Grace Hospital, Detroit, Michigan.

TYPES OF FOREIGN BODIES

Steel	20
Glass	16
F. B. Granuloma	9
Wood	8
Cotton Suture	6
Silk Suture	5
Needle	5
B-B Shot	2
Bone	2
Cinder	2
F. B. Cyst	2
Plastic	1
Fish Scale	1
Grease	1
Nail	1
Thorn	1
Porcelain	1
Tatoo	1
Unknown	4
Total	88

The foreign bodies were distributed accordingly, in order of frequency (Chart 1):

1. Distal Phalanges	30
2. Proximal Phalanges	21
3. Palmar	18
4. Thenar Eminence	13
5. Middle Phalanges	5
6. Hypothenar Eminence	2
Total	89

The diagnosis of a foreign body of the hand can readily be made from the history, physical examination and x-ray study. This is particularly true when the object is radiopaque. A radiolucent object makes the diagnosis more difficult and then one must rely more on the history and physical examination.

Foreign bodies of the hand can be exceedingly difficult to locate at the time of surgery. It is not surprising, then, to find most of the papers on this subject devoted to the location of the foreign body at the time of surgery. Willis[13] has suggested outlining the object in three planes under fluoroscopy. He also suggests the use of an especially designed forcep which will light a filament when a metallic object is touched. The objections to such an instru-

ment are obvious. First, an instrument of this kind must be complicated and cumbersome to work with and second, less than half of the foreign bodies of the hand in this series are metallic. Recently, Willis[14] has suggested the use of a wire grid, divided into 1 cm. squares as an aid in localizing and removing foreign bodies. Leff[7] has advised locating the foreign body with hypodermic needles placed at right angles to one another with both needles touching and pinning down the object. This is done under fluoroscopy. An incision is then made along the direction of one of the needles down to the foreign body. Bunnell[3] advises x-rays in two planes, then under fluoroscopy outline the two ends of the foreign body with needles, and finally remove the agent by incising the skin at right angles to the long axis of the object.

We believe fluoroscopy should *not* be used in diagnosing, locating and removing foreign bodies since the danger of overexposure to the patient and the surgeon is too great and because fluoroscopy will not give information that cannot be obtained with a good x-ray in two planes. We believe all foreign bodies of the hand can be diagnosed, located and removed by obtaining good x-rays in two or three planes, wide exposure and dissection in a bloodless field.

On admission to the hospital, the patient is to have a complete history and physical examination; complete blood count and a urinalysis. X-rays are obtained in two or three planes. The patient is started on antibiotics if the injury is old or extensive. Tetanus antitoxin or tetanus toxoid must always be administered in this type of injury. The patient is taken to the operating room, where, under a general anesthetic or a brachial block the hand and arm are scrubbed with septisol and water for five minutes. Sterile drapes are applied to expose only the involved hand. A blood pressure cuff is applied around the upper arm separated from the skin by several layers of sheet wadding and held in place with roller gauze. After the arm is elevated for two minutes, the pressure in the cuff is raised to 250 to 300 mm. Hg. with the rubber tubing connecting the bulb and mannometer clamped immediately close to the blood pressure cuff. A correctly applied cuff will maintain a dry, bloodless field throughout the operative procedure. Good exposure in a bloodless field cannot be overemphasized. One should always explore for additional foreign bodies and associated injuries. The skin is dressed with a large bulky compression dressing and the hand and arm elevated in a sling.

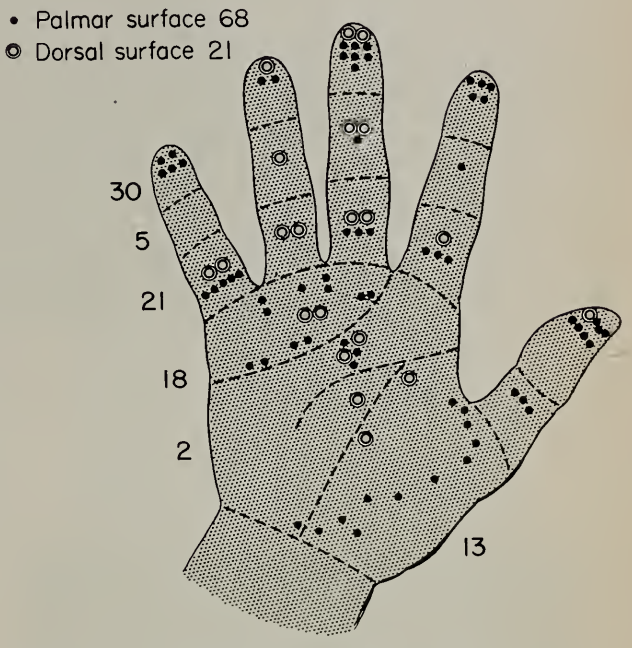


Chart 1. Distribution of foreign bodies in hand injuries among eighty-eight patients.

Report of Cases

Case 1.—In October, 1955, R.D., a white woman, aged thirty-three, had a diagnostic dilatation and curettage performed at another hospital where sodium pentothal was administered into a vein in her right wrist. The following day a lump appeared in the palm of her right hand. The right ring finger developed a progressive flexure contracture which finally measured 90° at the proximal interphalangeal joint. This digit was particularly painful at night, with the pain radiating into the elbow.

An x-ray of the hand was negative.

Sixteen months later the hand was explored in the usual manner under a general anesthetic. The tumor mass was found to enclose the sublimis and profundus tendons to the right ring finger. By careful blunt and sharp dissection in a bloodless field, this mass was completely removed. The postoperative course was uneventful and the patient went on to make a complete recovery.

Grossly, the specimen consisted of several pieces of tissue which are nodular, firm and light grey in color. It contains many small cystic areas filled with soft yellow material.

Microscopically, the specimen consists of a dense connective tissue with a small amount of attached adipose and areolar tissue. Within the substance of the fibrous tissue there is a multioculated granulomatous process. The areas are surrounded by fibrous and hyaline tissue. Superimposed upon the fibrous and hyaline tissue there is a moderate amount of fibrous repair with fibroblastic proliferation. This, in turn, is lined by epithelioid cells

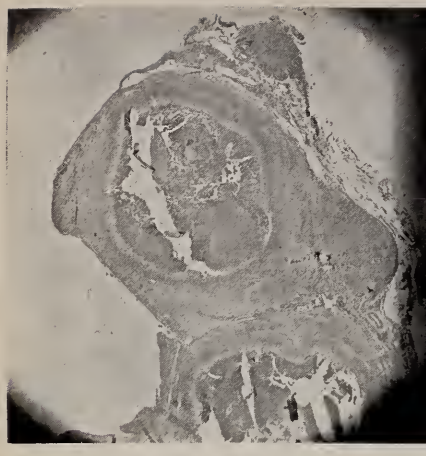


Fig. 1. *(Case 1, R. D.)* Low power view (4.5X) of foreign body granuloma caused by local reaction to Sodium Pentothal.



Fig. 2. *(Case 1, R. D.)* Medium power view (45X).

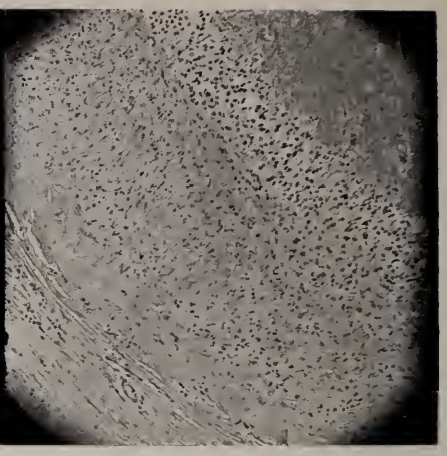


Fig. 3. *(Case 1, R. D.)* High power view (50X) of granuloma. (1) Granulomatous tissue surrounding monocytic proliferation. (2) Necrotic purulent material in center of granuloma.



Fig. 4. *(Case 2, K. S.)* Foreign body seen on l eral view of right ring finger.

with a number of multinucleated giant cells. In the center of the areas, there is a necrotic tissue, remains of purulent material and remains of an amorphous-appearing foreign body. (Figs. 1 to 3).

Case 2.—K. S. is a thirty-four-year-old white woman who sustained a laceration in the palmer crease at the proximal interphalangeal joint of the right ring finger with a piece of glass. The laceration was treated at home and healed uneventfully. One week later the finger became swollen and tender. She consulted a physician who treated her with antibiotics. The injection failed to subside and the patient gradually developed a flexure contracture. The patient was then referred to a surgeon who advised conservative therapy. The contracture became worse and another physician was consulted who prescribed physical therapy, warm hand baths and injections of vitamin C. The flexure contracture improved but the patient continued to have pain in the involved digit especially on motion and when pressure was applied. This pain was shooting in nature and would often result in dropping objects.

Examination revealed tenderness on the volar aspect of the right ring finger at the proximal interphalangeal joint.

X-rays revealed the presence of a small radiopaque particle at the site of the injury in the finger. (Fig. 4.).

Three months later, under a general anesthetic, the right ring finger was explored and a small particle of glass was found to have penetrated the flexor digitorum profundus and was wedged in the flexor digitorum sublimis. A contracted band in the palm turned out to be a tenosynovitis, a reaction from the presence of the foreign body in the tendon.

Except for a moderate amount of postoperative pain the patient made an uneventful recovery.

Case 3.—In January, 1957, this 13-year-old white boy injured the middle finger, left hand, while tobogganing. A piece of wood was removed on the scene of the accident and the boy was taken to a hospital where he received an injection of tetanus toxoid and was told to soak the hand. An x-ray taken later showed a growth around the bone and the patient was advised to "let it go." In May, this finger was reinjured and again it was treated expectantly. Since then there has been intermittent swelling of the finger. Four days prior to consultation the finger became swollen and very painful.

Physical examination revealed a left middle finger swollen three times the normal size (Figs. 5 and 6). It was very edematous, tender and there was complete loss of motion except for the tip of the finger.

Under general anesthesia in a bloodless field, the left middle finger was explored. A small wooden splinter measuring ½ x ⅛ cm. was found and removed. A large amount of yellow fluid was present. A transverse incision was made in the distal transverse crease of the palm. More fluid and necrotic tissue was encountered. Large drains were inserted in the operative sites and the incisions closed. The postoperative course was uneventful.

Conclusions

1. Experience with foreign bodies of the hand during the past eight years is presented.

2. All foreign bodies of the hand requiring hospitalization should be x-rayed and removed in a bloodless field with good exposure.

3. Three cases of foreign bodies of the hand are presented.

4. Fluoroscopy should never be used in diagnosing, locating and removing foreign bodies of the hand.



Fig. 5. *(Case 3)* Lateral and oblique views of left hand showing marked swelling of left middle finger from chronic tenosynovitis as result of piece of wood.



Fig. 6 *(Case 3)* Anterior-posterior view.

References

1. Baker, Joseph M.: Molten plastic injuries of the hand. Plast. & Reconstruct. Surgery, 15:233, 1955.
2. Behague, P. and Turon: Extensoprogressive reflex disorders of dihomomelic type of Barré presenting syringomyelic syndrome following septic foreign body of palmar region; case. Rev. neurol., 80:380 (May) 1948.
3. Bunnell, S.: Surgery of the Hand. 3rd Ed., pp. 721-735. Philadelphia: Lippincott Co., 1956.
4. Falk, V. S., Jr.: Carcinoma of the finger resulting from a wood splinter. Wisconsin M. J., 53:107 (March) 1954.
5. Ferrari, C. O. and Zancolli, E. A.: Extraccion de cuerpos extranos de la mano. Prensa méd. argent., 43:2293 (July) 1956.
6. Herrmann, H.: Cuerpos extranos radiovisibles de mano y antebrazo su localization y extraction. Prensa méd. argent., 43:1480 (May) 1956.
7. Leff, J.: Method of removing radio-opaque foreign bodies from the hand. J.A.M.A., 157:751 (Feb. 26) 1955.
8. Ostapowicz, G. and Schulze, H. A.: Sudeck's syndrome as a complication of foreign body injury. Beitr. klin. chir., 194:300 (May) 1957.
9. Patey, D. and Scarf, R. W.: Pilonidal sinus in a barber's hand with observation on postanal pilonidal sinus. Lancet, 255:13, 1948.
10. Posch, J. L.: Tumors of the hand. J. Bone & Joint Surg., 38:517, 1956.
11. Raynand, W. A. B., and Smith, F.: Digital foreign bodies in spot welders. Brit. M. J., 1:843 (June 14) 1947.
12. Weiss, W. W.: Subungual splinter removal. Indust. Med., 16:491, 1947.
13. Willis, D. A.: Localization and removal of foreign metallic bodies. Surg. Gynec. & Obst., 65:6983, 1937.
14. Willis, D. A.: Simple method of localizing foreign bodies in the hand. Am. J. Surg., 82:508, 1951.

LUNG CANCER

Two doctors at The University of Michigan Medical Center have been appointed by the American Cancer Society to committees which will make a three-year nationwide study of lung cancer.

Fred J. Hodges, M.D., professor of radiology and chairman of the Department of Radiology, was named to the project's co-ordinating committee and William O. Umiker, M.D., associate professor of pathology in the Medical School and chief of laboratories at Ann Arbor's Veterans Administration Hospital, will direct one of the project's four cytology centers. The research is a joint effort by the American Cancer Society and the Veterans Administration to halt lung cancer, which the Society calls "the most rapidly increasing form of malignant disease."

Management of the Swollen Arm Following Mastectomy

By Brock E. Brush, M.D., John H. Wylie, M.D.
Joseph Beninson, M.D., Melvin A. Block, M.D.
and Thomas J. Heldt, M.D.

Detroit, Michigan

IT IS well recognized that William Stewart Halsted[5] was a pioneer in radical surgery of the breast. It is also true that he studied thoroughly the complications of radical breast surgery. His observations and opinions of lymphedema of the arm remain a classic to this day. He observed that in many instances, a year or more following the operation and without return of the disease, there would occur sudden or gradual swelling of the upper extremity. Halsted also studied patients with swelling of the arm in whom no surgery had been done, as well as those in whom late postoperative swelling accompanied a recurrence of the disease. In many instances when Halsted removed the axillary and supraclavicular glands, and resected a portion of the subclavian and axillary veins, no edema of the arm developed. He further observed that less difficulty occurred after skin grafting than following some plastic closures.

Halsted concluded that infection was "a very frequent if not indeed usually the overlying cause of swelling of the arms whose main lymphatic channels have been more or less blocked by operation." This infection he stated may be so mild as to escape the observation of even those intently on the lookout for it.

Veal[14] showed by phlebograms that angulation of the axillary vein often occurred and he believed that the venous return was the important factor in etiology, while Foley's[4] studies disputed this idea. Drury and Jones[2] demonstrated that edema was quite likely to follow a maintained increase in venous pressure, and Parker, Russo, and Darrow[11] found a correlation between the development of lymphedema and obstruction of the main venous channels. Lubb and Harkins[9] studied the total problem and found that excision of a segment of the axillary vein did not influence markedly the number of patients who developed edema, nor the severity of it. In their series, infection did not seem to be as important an etiologic factor as it had previously been considered to be.

Wakim, Martin, and Krusen[15] showed that chronic edema results in changes in the subcutaneous tissues toward induration, thickening, and fibrosis, and advocated early treatment of the edematous limb by centripetal rhythmic compression for one-half hour twice daily. They demonstrated that the edema and pain could be relieved, and that the color and consistency of the skin would become more normal. The basis of improvement, they felt, was a regeneration of lymphatic connections, re-establishment of collateral blood vessels, and development of new avenues for both lymph and blood.

Reichert[12] demonstrated the importance of the regenerating lymphatics in aiding the veins to overcome edema and restore a more normal state.

The role of postoperative roentgenotherapy has been discussed by Holman, McSwain, and Beal,[6] and in addition, the aspect of the presence of axillary metastases at the time of surgery.

One of the most distressing features of an edematous arm is the frequent recurrence of infection as demonstrated by chills, fever, and localized redness and pain. The relief from these episodes has been one of the most gratifying aspects of treatments which reduce the edema and return the arm to a more normal state.

Prevention

Since infection is one of the important causal factors of later trouble, the prevention of postoperative fluid collections is all important. The use of constant suction drainage for several days by the insertion of catheters at the conclusion of the operation, as advocated by MacDonald and Osman,[10] has resulted in much less infection and

From the Departments of General Surgery and Dermatology of the Henry Ford Hospital, Detroit, Michigan.

Presented at the annual meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

improved healing of the skin flaps. Fitts, Keuhnelian, Ravdin, and Schor[3] studied the etiology of arm edema following mastectomy and could find no *one* determining factor. The number of nodes removed, obesity, and necrosis of skin edges were studied as well as postoperative fever, fluid collection and infection. Prophylactic penicillin did not appear to be beneficial in reducing the incidence of edema.



Fig. 1. The pump in use.

Early arm exercises leading to free and complete mobility of the arm and shoulder have long been stressed as an important step in the avoidance of later arm troubles.

A skin graft should be employed whenever there is any tightness of the skin flaps. The skin graft is much preferable to any plastic procedures on the skin, and an adequate skin graft will result in a much greater freedom of motion.[7] Arm exercises should be begun in the immediate postoperative period and continued for at least six months. They should be such as to promote free and complete mobility of the arm including reaching behind the head and reaching to a vertical position. While this often gives some discomfort in the early stages, the results of a determined exercise program are indeed worth the effort.

Elastic arm bandages for the first six months following the operation have been advocated and would seem to have merit. It has been shown that when the venous pressure gradually increases in the postoperative period, edema is likely to follow. The inconvenience of using these bandages is well repaid in later years. We ourselves have not used them in a preventive way.

The fixation of the skin flaps as advocated by Larsen and Hugan[8] should result in less fluid collection and better healing of the incision.



Fig. 2. *(left)* Measuring the arm for the elastic sleeve.

Fig. 3. *(right)* The custom-made pressure-gradient elastic sleeve.

Method

The apparatus which we have utilized is comprised of three features: (1) A sleeve of special fabric in the length of which are incorporated two inflatable rubber tubes of about 1-inch caliber. This sleeve is laced on so that it can be adjusted to an arm of any size. A non-elastic glove is used in conjunction with the sleeve to prevent swelling of the hand while the pump is in use (Fig. 1). (2) An especially constructed electrically operated air pump with a timing device permitting inflation of the rubber tubes for fifteen seconds and a collapsing rest of these tubes for forty-five seconds of every minute that the device is in operation; and (3) a custom-measured pressure-gradient sleeve to be worn when the pump is not in use.* The arm measurements for this sleeve are taken a few days after pumping when the arm has been reduced in size. (Figs. 2 and 3).

It has been our practice to begin the treatment with three to four days of rather intensive pumping. Most patients will tolerate the pump for periods of six to eight hours a day. As the arm diminishes in size the sleeve is tightened every two to three hours. When the arm has been reduced to near normal size the sleeve is laced less tightly.

*The sleeve and pump are supplied by the Jobst Institute, Toledo, Ohio.

After several days the arm is measured for an elastic sleeve. The pumping device is reapplied at intervals of a few days to a week or two and permitted to operate for several hours as needed to reduce accumulated swelling.

The apparatus, after an initial period of treatment and instruction, is used at home under medical supervision. Since our original report[1] in 1955, a new Jobst pump has been developed after a pilot model made by the Scientific Laboratory of the Ford Motor Company. The new pump weighs 15 pounds and can be transported easily.

The device must be used under the supervision of a physician. A thorough understanding of the objectives by the patient leads to better co-operation and thus a more satisfactory result. If there is evidence of local axillary and lung metastases we have relied more on the sleeve and less on the pump.

The following instructions are recommended for the use of each pump:

1. It must be used under medical supervision.
2. The use of a custom-made sleeve for periods when the pump is not in use is an essential part of the management.
3. Do not lace the sleeve too tightly at the beginning of the treatments.
4. Discontinue the pump if the patient experiences any significant distress in the arm.
5. Do not expect a large, long-swollen arm to be reduced by the first treatment.
6. Do not use the pump when there is evidence of lymphangitis.

Results

We have treated forty patients who had severe and disabling edema of the arm following radical mastectomy with heartening results. Significant relief has been obtained in all patients except two who were in the late stages of generalized cancer and did not tolerate the device. In many instances when the edema was long-standing (seven or eight years), the results were surprisingly good.

Illustrative Case Reports

Case 1.—A white woman, aged sixty-four, had a right radical mastectomy in 1956. Swelling of the arm started almost immediately after surgery. The swelling was so severe that the weight alone prevented her from using the arm. She was treated with the pump for eight days with very considerable improvement subjectively and a reduction in arm size of 2 to 3 inches. She now wears the elastic sleeve all the time and returns periodically for reapplication of the pumping sleeve for six to eight hours to further reduce the edema.

Case 2.—A white woman, aged sixty, had a radical left mastectomy in 1956. At the time of surgery there were axillary metastases and she was given postoperative radiotherapy. In the immediate postoperative period, healing of the wound was complicated by infection of the wound. Approximately six months following surgery, marked swelling of the arm and shoulder developed with severe pain in the tensely swollen arm. After five days' treatment with the pumping sleeve, the arm was reduced in size 3 inches and the pain had been relieved. She wears the elastic sleeve most of the time and is quite comfortable. The involved arm is now near normal in size and there is full range of motion.

Case 3.—A white woman, aged fifty-five, had a left radical mastectomy for carcinoma of the breast in 1942. Beginning six weeks following the surgery there was generalized lymphedema of the entire left arm which had gradually become worse over the years. In January 1956, she was treated with the pressure pump and sleeve, and the swelling in the arm and forearm were reduced 3 to 4 inches. She continued to use the pump at home with gradually diminishing frequency and presently uses it only about once a month. She wears the sleeve every day. She writes, "I have absolutely no pain or heaviness. . . ."

Case 4.—A white woman, aged forty-five, had a left radical mastectomy in July 1948, and a right radical mastectomy in May 1950. There were positive nodes, and radiotherapy followed this surgery. She developed progressive swelling of the left arm and was unable to work because of it. In December 1953, she was treated with the pump and sleeve—the arm returned to near normal size, and she returned to work. She was given hormone therapy and further radiotherapy, and was able to use the arm and keep working until two months before her death in July 1955.

Discussion

Starling[13] established the fact that massage and exercise greatly increase the flow of lymph, but other factors of lymph flow remain somewhat obscure even though they have been studied for many years. Elevation, massage, brachial plexus block and other forms of treatment have been of benefit, but the device here described has been more satisfactory in our hands.

The exuberant comments of the patients who had suffered from severe edema for many years have been very gratifying. The relief from the discomfort and pain has been the result which most patients have stressed. The distress from a huge swollen arm results from the increased weight, sensory disturbances in the skin, stiffness,

and reduced mobility of the whole extremity including the hand and fingers. The pain in most instances has seemed to be due to the tension in the arm as exhibited by the hardness. The relief of pain occurs as the arm softens and the tension is decreased. It soon became evident that a great deal of relief was obtained when the arm was only partially reduced in size.

As has been previously described the return of the arm to a more normal state has resulted in a greatly decreased incidence in attacks of lymphangitis and cellulitis.

The relief of edema has enabled many patients to wear clothes without expensive alterations. The boost to morale has been most interesting to watch in many instances. The relief from the embarrassment of a swollen arm has resulted in many of these patients again leading a normal life. They have resumed social functions and have returned to their former place in community life.

The fear of deformity has been a factor deterring some patients from accepting the ideal procedure for cancer of the breast. This fear of disability can be minimized if edema can be successfully treated.

Following the initial period of treatment and instruction, additional treatments are carried out in the home. The need for further use of the pump, after the initial course of treatment, has been quite variable. One patient uses the pump for a few hours every three weeks while several other patients require only their elastic sleeve. For the most part, the sleeves are removed at night and put on each morning. Several patients, after a few months of treatment, have discontinued even the use of the sleeve. With ordinary use the sleeves remain in good condition for three to four months. The importance of a custom-measured sleeve cannot be overemphasized.

Conclusions

1. Edema of the arm may be successfully treated by means of an appliance to reduce the swelling plus the use of a custom-fitted sleeve when the pump is not in use or no longer needed.

2. The pain, discomfort, and swelling are relieved.

3. The incidence of chills, fever, and localized infection is greatly diminished.

4. Strict adherence to instructions is important and medical supervision of the device is imperative.

5. Swollen arm, a troublesome sequela of radical breast surgery, need not be tolerated.

References

1. Brush, B. E., and Heldt, T. J.: A device for the relief of lymphedema. J.A.M.A., 158:34-35 (May 7) 1955.
2. Drury, A. N., and Jones, N. W.: Observation upon the rate at which edema forms when the veins of the human limb are congested. Heart, 14:55 (April 10) 1927.
3. Fitts, W. T., Keuhnelian, J. G., Ravdin, I. S., and Schor, S.: Swelling of the arm after radical mastectomy; a clinical study of its causes. Surgery, 35:460-464 (March) 1954.
4. Foley, W. T.: The treatment of edema of the arm. Surg., Gynec. & Obst., 93:568 (Nov.) 1951.
5. Halsted, W. S.: The swelling of the arm after operations for cancer of the breast. Bull. Johns Hopkins Hosp., 32:309-313 (Oct.) 1921.
6. Holman, C., McSwain, B., and Beal, J. M.: Swelling of the upper extremity following radical mastectomy. Surgery, 15:757 (May) 1944.
7. Hoopes, B. F., and McGraw, A. B.: Halsted radical mastectomy. Five-year results in 246 consecutive operations at the same clinic. Surg., 12:892-905 (Dec.) 1942.
8. Larsen, B. B., and Hugan, Charles, Jr.: Fixation of skin flaps in radical mastectomy by subcutaneous sutures. A.M.A. Arch. Surg., 71:419-423, 1955.
9. Lobb, A. W., and Harkins, H. N.: Postmastectomy swelling of the arm, with a note on the effect of segmental resection of the axillary vein at the time of radical mastectomy. West. J. Surg., 57:550-557 (Nov.) 1949.
10. MacDonald, I., and Osman, K.: Postmastectomy lymphedema. Am. J. Surg., 90:281-286 (Aug.) 1955.
11. Parker, J. M., Russo, P. E., and Darrow, F. E.: Elephantiasis chirurgica: cause and prevention. Am. Surgeon, 21:345 (April) 1955.
12. Reichert, F. D.: The regeneration of the lymphatas. Arch. Surg., 13:871 (Dec.) 1926.
13. Starling, E. H.: The influence of mechanical factors on lymph production. J. Physiol., 16:224, 1894.
14. Veal, J. R.: Swelling of the arm following radical mammectomy: Role of the axillary vein in production of edema of the arm following radical removal of the breast. J.A.M.A., 108:1236 (April) 1937.
15. Wakin, K. F., Martin, G. M., and Drusen, F. H.: Influence of centripetal rhythmic compression on localized edema of an extremity. Arch. Phys. Med., 36:98 (Feb.) 1955.

2799 W. Grand Blvd.
Detroit 2, Michigan

Fractures in Children

By James J. Horvath, M.D.
Detroit, Michigan

THE concept that diseases of children differ from those afflicting adults would lead to the assumption that it's the disease and not the patient that makes this so. It has been pointed out by men concerned with surgical problems in the child,[4] that the child is not merely a miniature edition of the man, nor an operation merely a scaled-down version of a procedure that could be done on an adult. Anatomically, a fractured bone in a child should be no different than that of a mature person. However, such is not the case. Not only may the types of fractures vary, the treatment and the prognosis may often be dissimilar from those existing in the adult. The general principles to be discussed are by no means new or original. They have evolved over a period of years from the experience of men concerned with fractures in children. Blount,[1] in particular, has recorded the highlights of his experiences in a magnificent book published in 1954, from which the major portion of this paper is derived.

It soon becomes apparent to the surgeon that it is not always possible to obtain anatomic reduction of a fracture. The problem, then, is simply, to know what is acceptable and what is not, in terms of functional results, not only in the near future but also in the final result when the little patient has reached maturity.

The purpose of this paper, then, is to outline the general rules which will guide the physician in his treatment. Obviously, it would be impossible to consider fractures individually. The discussion will be regional, except in those cases where special techniques are required.

Hand

The incidence of fractures of the hand is low (8 per cent). When they do occur, they are usually open, and as such, require the same treatment as any hand injury demands.

As a general rule, merely placing the hand in the position of function will reduce the fracture. There are three exceptions, the three B's: Bennett's, Boxer's and Baseball.

Bennett's is best treated by skeletal traction through the distal phalanx. *Boxer's* should be reduced and the three joints held flexed, or by intramedullary Kirschner wires. *Baseball* is held by flexing the proximal and hyperextending the distal interphalangeal joints after reduction.

Forearm and Wrist

Over 75 per cent involve the distal one-third of the forearm and are either torus fractures or complete, then with dorsal displacement. The former are best left untreated; the latter are easily reduced and held in sugar-tong plaster splints in neutral position. Disruption of the epiphyses should be accurately reduced and x-rayed at intervals for at least eighteen months to determine epiphyseal activity. In the mid-shaft, greenstick fractures may be left unreduced if the angulation is not excessive. Otherwise, the fracture must be completed manually and held in supination to prevent permanent bowing. Fractures in the proximal one-third are troublesome, especially if both bones are involved. After reduction, the forearm is immobilized with the hand fully pronated.

Bayonet apposition is acceptable; angulation is not, nor are rotational discrepancies. Wedging a cast invites disaster from pressure. In severe cases, traction may be required. Open reduction rarely is indicated.

Elbow

Supracondylar fractures account for 60 per cent of elbow injuries. Essentially, they are surgical emergencies. Two distinct types exist: 99 per cent are of the extension variety with posterior displacement of the fragment. One per cent are flexion and are anteriorly displaced.

Presented at the Annual Meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

Immediate treatment is by manual reduction and maintained in a flexed position, except, of course, in the flexion type in which case the arm is extended. If there is swelling, Dunlap traction is necessary. In a week or so, a collar and cuff or posterior mold may be applied.

Principles to be observed are correct lateral or medial displacement; avoid rotational discrepancies; bayonet apposition is acceptable; open reduction produces nice x-rays but poor functional results; rather than repeated manipulations, try traction; prognosis should be guarded in all fractures. Even if Volkmann's ischemia has been avoided, the reduction is perfect and functional results are excellent, a reversal of the carrying angle may result from the acceleration of growth of the lateral condyle, provide for swelling; therefore, avoid circular plaster initially.

Fractures of the lateral condyle: If displacement is minimal, hold the elbow in flexion and supination. If displacement is marked, open reduction is necessary. Otherwise, serious deformity is inevitable.

Fractures of the medial condyle: Again, if the displacement is a few millimeters or less, brief immobilization is all that is needed. With displacement or ulnar nerve symptoms, open reduction is mandatory.

"T" fractures common in adults are rare in children. Traction is the safest treatment. Closed reduction by manipulation is usually unsuccessful. Open reductions are not only difficult to perform but the results are disappointing.

Fractures of the neck of the radius. Closed reduction is successful if the displacement is 60° or less. If the displacement is near 90° open reduction should be done with replacement of the bone. *Never* remove the radial head in a child.

Olecranon fractures are rare in children.

Shoulder

Fractures of the clavicle are the commonest injury in children—even in the newborn. At birth, angulation and overriding may be ignored. Flannel figure-of-eight dressing for ten days is adequate; from birth to six years, the same treatment for three weeks; ages six to 12, reduce the fracture and hold for five weeks.

The prognosis is uniformly good and the alarming bump of callous obliterates rapidly. There is no justification for open reduction.

Humerus

Epiphyseal disruptions, if displaced, must be accurately reduced and held in an abduction brace or shoulder spica. Undisplaced injuries respond well to sling and swathe. The older the child, the more accurate the reduction should be. Fractures of the anatomic or surgical neck of the humerus are treated by traction when grossly displaced. Otherwise, a hanging cast is sufficient. Fractures of the shaft of the humerus in infants responds well to Valpeau dressing. Side to side apposition is acceptable.[3] In the older child, a hanging cast works well. Radial nerve damage is rare.

Femur

Seventy per cent occur in the middle one-third. Traction, followed by a hip spica, usually produces good results.[5] Rotation and angulation must be avoided. Overlapping is desirable. In the very young, overhead or Bryant traction is adequate. Beware of ischemia of the legs, a condition analogous with Volkmann's ischemia in the forearm.

Russell's or balanced traction in the older child is satisfactory with adhesive traction. Skeletal traction is rarely needed.

Open reduction is not advisable.[2]

Fractures of the distal end of the femur near or involving the epiphysis are analagous to supracondylar fractures of the elbow and should be treated in a like manner.

Knee and Leg

Patellar fractures, if undisplaced, require only aspiration of the joint and a plaster cylinder. If the extensor mechanism is disrupted operative repair is essential. Comminuted fractures are rare and are really misinterpretations of bipartite patellae. Patellectomy is to be condemned.

Shaft of tibia and fibula: All should be treated by closed methods. Spiral fractures in adults invariably require open operations; in children, never.

Disruptions of distal tibial epiphysis, with or without fracture of fibula need only closed reduction and cast. Use the same precautions as with any epiphyseal injury.

Malleolar fractures do not occur in young children. In the older ones, conservative treatment is sufficient.

Fractures of the foot are rare and the recuperative power of a child's foot is tremendous. A compression dressing or a short cast is adequate to manage isolated fractures.

Blount's General Principles

The fracture should not be grossly angulated or rotated. Rotational deformities are permanent, therefore inexcusable. Impacted fractures can be immobilized without reduction. Grossly angulated greenstick fractures, especially near the center of long bones, must be completely fractured through. Fractures near joints are best treated by manipulative reduction and cast. Exceptions are condylar fractures of the elbow and a few rare articular fractures. These must be opened. Epiphyseal fractures are best treated by closed methods, except the proximal femur. Internal fixation devices are usually not required. If pins or wires are used, provisions should be made for their removal later. Open reductions are difficult to justify. Nonunion by closed methods is rare. Permanent stiffness of joints due to immobilization is unknown. Physiotherapy is almost never necessary. There is no place for manipulation of joints under anesthesia. A hands off policy and the tincture of time is the medicine of choice.

Conclusion

The burden of responsibility, then, falls on the shoulders of those who undertake the treatment of fractures in children, for they must carefully follow each case until they are absolutely sure that no late sequallae develop. Legally, the statute of limitations is two years after the patient has attained the age of twenty-one.

References

1. Blount, Walter: Fractures in Children. Philadelphia: J. B. Lippincott Co., 1954.
2. Key, Albert: Indications and contraindications for medullary nailing of fractures. J.A.M.A., 158:1003, 1955.
3. Lichtenberg, Robert P.: A study of 2,532 fractures in children. Am. J. Surg., 87:330 (March) 1954.
4. Lodd, William E., and Gross, Robert E.: Abdominal Surgery of Infancy and Childhood. Philadelphia: W. B. Saunders Co., 1941.
5. Neer, Charles and Cadman, Edward: Treatment of fractures of the femoral shaft in children. J.A.M.A., 163:637, 1957.

1553 Woodward Avenue

WILD ANIMALS AND DISEASE

Only rarely is a wild animal found completely free of parasites, some of which can be harmful to both man and domestic animals.

Prof. A. B. Cowan (wildlife management), University of Michigan, and an assistant are attempting to follow the population cycles of snowshoe hares and ruffed grouse to determine what role parasites and diseases play in causing periodic population declines.

The hares and grouse reach their period of abundance on an average of every nine to ten years, with marked declines following the highs.

No one has been able to explain satisfactorily, however, the causes of the declines.

The plan of attack of Professor Cowan: "We will try to follow through at least one complete population cycle of both the hare and grouse in an attempt to find whether there is a correlation between population and parasites and diseases.

"Should we find that some of these organisms are causing losses, we may be able to come to understand their relationship to the host and its environment. Then, and only then, can we look for management practices which may eliminate or circumvent the losses we now experience."

The research will also include seeking a better understanding of dense populations: "When a species of animal becomes too dense it is most frequently trimmed by some natural phenomenon."

Hunters needn't worry too much about eating grouse killed in the field, however. "None of the species of parasites detected on or in ruffed grouse have been found in edible parts. But it is interesting to note that as many as twenty-one different kinds have been found —four kinds on the outside and seventeen inside."

Most of the animals studied thus far have been collected near Camp Filbert Roth, the University of Michigan School of Natural Resources Forestry Camp in the Upper Peninsula's Ottawa National Forest.

Advances in Knowledge of the Physiology of Wound Healing

By John B. Hartzell, M.D.,
and Carlos Mota, M.D.
Detroit, Michigan

IN PREHISTORIC times, long before the development of civilization man did not live in a Garden of Eden,[24] but in a hostile world where he was forced to fight for his very existence. He was ignorant but being intelligent, he survived and developed and in the process learned to look after himself. Well-healed fractured bones which have come to us from The Stone Age, give mute evidence that he knew something about maintaining apposition with the splint.

A glance at medicine as practiced among the primitive and savage peoples of more recent times affords insight as to how a prehistoric family lived. They were in constant fear of attack by someone stronger, hence they banded together as tribes for the sake of safety. In a group of this kind, there was usually some individual who was a little shrewder (or perhaps a little wiser) than the rest, and in times of trouble others turned to him for advice. He became a sort of priest. Depending upon his influence with the tribe, his advice and aid were sought on many subjects. He was supposed to be able to intercede with the spirits, who, if worshipped properly could bring victory in battle, rain in periods of drought, and sunshine in times of flood. The sick and injured also sought his aid, and he became a medicine man. His armamentarium consisted mostly of incantations and magic, a primitive type of psychotherapy.[12] He frightened the evil spirits away. However, he did practice surgery of sorts. There is evidence that he knew something about dealing with wounds, stopping hemorrhage, removing foreign material, and the application of splints and rest.

And so, by observation and experience, man's knowledge grew. That this growth, through the eons of time, was slow and painful is evidenced by the degree to which the healing art had advanced at the time that man's first recorded history had its birth.

The earliest organized society of which we have record is Egypt of 4000 to 5000 years ago. The priests constituted a numerous and influential body,[27] and most of them were also physicians. The treatment for various diseases was prescribed by law, and the physician was not allowed to alter the mode of cure until after the fourth day of the patient's illness. If he altered the prescribed cure sooner, and the patient did not get well, the physician was punished. According to the Greek historian Herodotus, they developed specialists for different parts of the body—some for the eyes, the head, the teeth, the belly, and there were some who cut for bladder stones.

The Babylonians of 2000 B.C. had no physicians,[27] and it was their custom to expose their sick in the market place, in order that those who had been similarly afflicted, might communicate to them the means of cure. The ancient Persians obtained their physicians from Egypt.[27]

In India, about 1000 B.C., there existed an advanced civilization.[30] There is some evidence to support the belief that the ancient Egyptians derived their first knowledge from India. The science of Life or Medicine became a recognized profession, but, as with all early peoples, the healing science was closely connected with theology. Surgery at this time consisted of the removal of foreign bodies, opening abscesses, removing the dead child from its mother, the healing of wounds, the application of escharotics and the use of fire in the treatment of various inflammatory processes. The Hindu physician, Susruta, cut for stones and seems to have been one of the earliest to do plastic surgery.[7] Restorative operations on the nose and ears were frequent because of the common practice of mutilation at the

---

Presented before the Academy of Medicine, Detroit, Michigan, April 12, 1955, and given as a Mayo Clinic Lecture, Rochester, Minnesota, April 17, 1956.

Dr. Mota is Resident in Surgery on loan to Jennings Memorial Hospital from Henry Ford Hospital, Detroit.

hands of despotic governors. It is also recorded that the early Hindu physicians succeeded in suturing the intestine.[7]

The ancient Hebrews did some surgery, but they are best known for the development of a rational code of hygiene. The priests, in addition to their religious duties, were the health officers.

It remained for the Greeks, however, to establish the earliest principles of scientific medicine. While the Egyptians, the Babylonians, the Hindus, and the Jews were beginning to scratch the surface of medical practice, Greek medicine was beginning to show signs of progress. They developed a great center of learning on the Island of Cos, off the coast of Asia Minor.[27] The priests were known as Aesclepians. They were the physicians, their temples became health resorts, and it was there that the first school of scientific medicine was established. The young man destined for the profession underwent preparatory education from the age of seventeen to twenty. He then continued his studies for four more years, much as we do now.

Sometime in the neighborhood of 500 B.C., the priesthood and the practice of medicine became separate professions; medicine was taken out of the temple, and became a science. About this time (and on the Island of Cos) Hippocrates was born in 460 B.C.[27] His father was a member of the sect or guild known as the Aesclepiadae of the University of Cos, and from him Hippocrates received much of his early education. He studied the sick patient, took clinical notes, and kept case histories. He founded the art of diagnosis and prognosis. Hippocrates, his son and his grandson, wrote many volumes on medical and surgical subjects. These books, based on observation of patients, described wounds of various parts of the body, and the complications of pyemia, tetanus, erysipelas, also those following labor. The necessity of trephining in wounds of the skull, where splinters of bone were present, was recognized. The treatment of variocele, hernia, dislocations and fractures, and tumors of the testicle was described.

Perhaps his most important contribution was his recognition of the fact that the body possessed a certain power to react against disease and injury, and also to recover from the effects produced by them.[7]

Three hundred years after the death of Hippocrates, following the Roman conquest, Grecian medicine was taken to Rome, when for a time it flourished.[12] But, with the passing of Galen, the last of the great Roman physicians, and the Fall of Rome, medicine ceased to exist as a science.[12] Through all these years of the Medieval period, the bright spots of progress were few. Rhazes[7] of Bagdad became the first Arab to use logic instead of magic. He taught that fever did not represent a disease, but rather that it was nature working to bring about a solution of the disease. In the thirteenth century, two are worthy of mention—Theodoric, the surgeon Bishop of Cervia, and Henry de Mondville—who emphasized the importance of cleanliness and washing of wounds and the removal of all foreign matter. Theodoric maintained that wounds could be closed and would heal without suppuration if properly cared for.[12]

With the coming of the Renaissance, scientific thought and reason again became important to medicine. Paracelsus, the Swiss physician (1493-1541), taught that every surgeon should know that it is not he, but nature, that heals wounds. To use his own words: "For you should know by their nature, the tissues—contain within themselves an inborn balsam which heals wounds."[7]

Suturing of wounds was a recognized art in the ancient civilizations of Egypt and Assyria in at least 2000 B.C. It is recorded that Jewish Rabbis commonly sutured wounds and freshened their edges to get union as early as 200 B.C.[10] The ligature is mentioned in early Greek and Arabian writings. To Ambrose Paré (1510-1590), however, goes the credit for rediscovering the ligature. He lived during the period of the almost endless French wars, and obtained vast experience. One day on the battlefield, he ran out of boiling oil, and substituted the ligature for the control of hemorrhage.[22] His dictum has come down through the centuries—"I dressed him, God cured him." Harvey's discovery of the circulation of the blood emphasized the logic of Paré's ligature.

Three hundred years were to pass before two events occurred which changed surgery and the care of wounds from a ghastly nightmare to what was shortly to become modern scientific care. The first use of ether by Crawford Long in 1842, and later by Morton in 1847, and the researches of Joseph Lister about 1865, based on the work of Pasteur in the use of antiseptics, mark the beginning of what we know today as aseptic surgery. These antiseptics, carbolic acid 1-20, and later bichloride of mercury, enabled Lister

to operate in a clean, uncontaminated field. It had previously been the practice to tie off blood vessels with silk or flax, leaving the ends long (much as Paré had done 300 years before). These protruding ligatures allowed for the escape of pus, and also the sloughed portion of the blood vessel and the knot. Lister showed that in the aseptic wound, using antiseptic ligatures, the knots could remain buried.[6] In such a wound, for the first time there was reasonable expectation that primary healing could be obtained. Lister was also the first to use dressings sterilized by heat.[6] Drainage tubes then came into use. These first were made of decalcified bone and were usually absorbed in about ten days.[21] Within four or five years, surgeons began to use rubber as drainage material.[22]

So, with the advent of anaesthesia and the beginnings of antiseptic, or rather aseptic surgery, modern surgery was born. It did not immediately appear in the form in which we know it today. Methods were still to be learned. Bilroth contributed much to abdominal surgery; Von Bergman to the care of head injuries.

It remained for Williams Stewart Halsted to study and evaluate the process of tissue repair and to enumerate the principles in the care of wounds. He taught that the body possessed great natural healing powers, and stressed the importance of not interfering with the healing process, by the application of meticulous surgical technique. He emphasized the importance of hemostasis, the avoidance of traumatizing the tissues by rough handling, or with strong antiseptics, and he advocated the use of fine suture material in preference to the heavy material formerly used as ligatures.[19] These teachings are regarded as even more important today than they were fifty years ago.

With the principles of surgery becoming outlined and established, surgical centers developed in Europe and North America, and an ever-increasing number of operations were performed yearly. There were large numbers of complications—not like the pre-Lister era when hospital gangrene, pyemia, erysipelas and tetanus, following simple amputations resulted in a nearly 50 per cent mortality—but still far higher than today. Once surgeons had become accustomed to seeing wounds heal by first intention, they began to seek reasons for delayed healing, disruption and failure to heal, and for additional safeguards against infection, and ways to insure normal healing in a larger percentage of cases. With the gradual increase in knowledge of the fundamental physiologic and histologic changes which occur in the healing process, many of these problems have been solved.

Space does not allow an adequate discussion regarding the amount of investigative work which has been done on the subject of wound healing. Suffice to say, the gross and microscopic changes which take place in the wound during the process of repair, are now well-known.

The response of the body to injury is a biologic phenomenon. The healing of a wound is the effort made by the body to live. In the cleanly incised, surgically closed wound, in the presence of hemostasis and the absence of infection or other complicating factors, the reparative process proceeds at a given rate.[15]

The first phase has been spoken of as the lag period. During this period, which lasts roughly about four days, the activity within the wound is principally confined to getting ready for the actual process of repair.[23] The non-viable material is removed by autolysis, heterolysis and phagocytosis. The tensile strength is no greater than the sutures or the tissues into which the sutures have been placed. There is agglutination of the wound by the surface fibrin. The presence of freshly damaged tissue cells in the wound is thought to give rise to a substance which stimulates the ameboid movement of new connective tissue cells into the wound. These new cells are derived, not from the adjacent tissues in the borders of the wound, but from wandering connective tissue cells, fibroblasts, polyblasts and histocytes. The exact nature of this stimulating substance is unknown. The presence of certain essential sulfhydryl-containing amino acids may prove to be the initiating factor.[18]

More recently it has been shown that in the early stages of repair, up to the fifth day, there is a marked concentration of hexosamine (sugar and amino acid) in the wound. Reticular material begins to appear by the fifth or sixth day, and since reticulin is a developmental stage of collagen and since hexosamine disappears as collagen is formed, Dunphy and his associates believe the lag phase should better be termed "the productive phase"—since it is in this period that "sugars, muco-proteins and the soluble precursors of collagen appear in the wound."[8]

There now occurs an increase in the rate of

the mitotic proliferation of these invading fibroblasts. The maturation of the fibroblasts then occurs. They elongate along the fibrils and unite the wound surfaces. Collagen fibres then develop from the elongated fibroblasts and there is a rapid increase in the tensile strength of the wound.[28]

Little can be done to speed normal healing—but there are many factors which interfere with the healing process. These are classified into two groups, local and general. The local factors act upon the wound itself, and the tissues adjacent to the wound, while the general factors influence wound healing by acting on the body as a whole.

Infection is an important local factor. It must be assumed that even under ideal aseptic conditions all wounds are to some extent contaminated. It is the virulence of the bacteria and their pathogencity that counts. Mason divides wound contamination into two categories:[19] bacteria from their natural habitats and from human sources.

Bacteria from their natural habitats gain admission to the wound at the time of injury from objects not recently contaminated from human sources. Most traumatic wounds are so-contaminated, and these bacteria are in a relatively dormant state and are not accustomed to living in the body. The process of adjusting themselves to their new environment constitutes the period of contamination, and may be from six to eight hours. A wound seen prior to the so-called eight-hour deadline, if mechanically cleansed by gentle washing and irrigation and by removal of foreign bodies and dead and traumatized tissue, may usually be closed without resulting infection. After eight hours these bacteria will have begun to multiply and invade the organism, and then the wound must be considered as infected. Here the treatment must necessarily differ, and closure must be deferred, until the infection is brought under control by careful debridement, moist dressings and antibiotics.

Now to consider contamination by bacteria from human sources, these organisms are accustomed to living in the body, are immune to human antibodies, and are therefore able to produce a virulent infection in two to three hours. The human bite is the prize example. These wounds must be considered as infected from the start, because they are rarely seen soon enough to permit of proper cleansing.

Another local factor interfering with wound healing is the presence of dead or devitalized tissue which constitutes favorable media for bacterial growth and must be absorbed or extruded before healing can take place. Tissue injury is seen most frequently in wounds from trauma, but it may also result from rough handling of the tissues by the surgeon.

The presence of foreign material delays healing and is a source of infection. Small pieces of steel are safely left in a wound, but wood or clothing is always a source of infection and must be removed.

Here some further mention must be made of suture material. It is a foreign body and the size and type of material used definitely affect the progress of wound healing. In general, the finer the material the better. Heavy material makes large knots which are difficult to absorb or encapsulate. Of the absorable materials, catgut is the most widely used. The term catgut came from the word "ketgut or "ketstring" meaning a fiddle string. The ket was a small fiddle or violin. While gut was widely used for centuries, Dr. Philip Syng Physic (1768-1837) was the first to realize that it would be absorbed and proved this by animal experimentation.[10] Present-day catgut is made from the jejunum of healthy sheep.

Of the non-absorbable ligatures, the most commonly used are silk, cotton, nylon and steel wire. All of these produce less reaction than catgut, and, in the following order silk, cotton, nylon, tantalum and steel wire produce the least reaction.[13] The fact that catgut acts as an irritant and must be absorbed inhibits wound healing. Silk and cotton have the disadvantage that, if infection is present, the interstices of the fibres harbor bacteria and not infrequently the infected stitch must be removed.

In 1911, Harvey Cushing devised a metal clip made from silver.[26] These were clamped on blood vessels to control bleeding in operations on the brain. In 1942, tantalum clips came into almost universal use in brain surgery—hundreds often being left within the skull. They are also used to secure hemostasis in other surgical procedures. They are less time consuming and cause less reaction than ligatures of silk or catgut.

In 1934, W. Wayne Babcock advocated the use of fine stainless steel wire in the closure of abdominal wounds.[3,4]

In 1934, after an extensive clinical study, Thomas Jones and Associates reported that the use of buried steel wire alone, without stay sutures

for the closure of abdominal wounds, had reduced wound morbidity to an extremely low incidence. They found that the incidence of infection in abdominal wounds in combined abdomino-perineal resections with midline colostomies had been reduced from 27.5 per cent with the use of catgut, to 0.85 per cent with the use of interrupted steel alloy wire sutures.[17] Wiley and Sugarbaker reported in 1947 that a comparison between 100 abdominal wounds closed with catgut and silk and a similar number closed with alloy steel wire revealed a decrease in wound complications from 3.36 per cent to 0.08 per cent.[29] Many other writers report marked improvement in wound healing with the use of alloy steel wire. Tantalum and steel remain imbedded in the tissues forever, but produce almost no reaction.[13] In the seriously ill patient or in the presence of infection, it is the material of choice.

The presence of collections of blood or serum delay healing and also predispose to infection.

Healing requires a normal blood supply. Wounds in an avascular area are slow to heal—as a wound over the anterior surface of the tibia. The more vascular the tissues, the better the healing, as in wounds of the face. It is obvious that surgeons must avoid unnecessary injury to the blood supply, or to interfere with it in other ways by too much local anaesthesia or too tight dressings. Venous stasis impedes the flow of blood, and may be obviated by elevation and pressure dressings. Pressure dressings are useful, but the pressure must be applied evenly and gently, thereby aiding in venous outflow from the area, but not interfering with the arterial inflow. Sympathectomy and vasodilator drugs are sometimes of benefit and more recently the substitution of vessel grafts for obstructed vessels is a dramatic step in the progress of supplying blood to starved areas in the body.

There are numerous general factors which directly or indirectly have a profound effect on wound healing. The age and general condition of the patient, the condition of the blood, and the general circulation may all affect wound healing. Healing requires a normal blood supply, for removal of waste products and supplying the building blocks for repair. Poor circulation and anemia may cause hemoglobin deficiency and the oxygen-carrying power of the blood may be impaired sufficiently to result in tissue anoxia and impaired healing.[19]

Another factor is the effect of protein on wound healing. In the presence of hypoproteinemia, there is a marked delay in fibroblastic proliferation, while a high diet accelerates fibroplasia.[25] Recent studies indicate that sulphur-containing amino acids, as methionine, are necessary to permit the utilization of the body proteins.

Another cause for poor and delayed healing is the presence of low vitamin C levels in the tissues. This was suggested by Sokolov[24] as a cause of wound disruption. This concept is not new. Richard Walters' account of Lord Anson's "Voyage Around the World in 1740," vividly describes the effects of scurvy among the crew—"Scars of wounds that had been healed, broke out afresh and appeared as though they had never been healed."[11] More recent investigations have demonstrated that the histologic basis for failure of wounds to heal in the presence of a vitamin C deficiency lies in the inability of the supporting tissues to produce and maintain intracellular supporting substance.[31] Fibroplasia, mucopolysaccharide production and the formation of reticular precollagen material necessary for collagen production are present, sometimes in greater than normal degree, but collagen simply is not deposited and actually disappears from the tissues. In such wounds, the lag period is lengthened almost indefinitely and the tensile strength is poor. The work of Grindllay and Waugh and others indicates that biopsy of an implanted polyvinyl sponge may aid in the chemical and histochemical studies in what transpires during the healing period.

Twenty consecutive cases of abdominal wound disruption occurring in Detroit Hospitals were checked personally by Drs. J. M. Winfield, J. L. Irvin and myself. Low serum protein and vitamin C levels were present in nineteen cases.[14]

It has been shown that in the presence of a vitamin C deficiency, wounds usually heal normally. This is true also in the presence of low serum protein, and also with the body in a state of partial starvation. The starved salamander can regrow an amputated tail with the same speed as a well-fed one.[20] These findings, however, can hardly be said to indicate that ample concentrations of vitamin C and proteins are not important, but rather serve to illustrate the tremendous effort made by the body to effect healing, in its ability to rob other areas in order to supply the locality of the wound. It has also been ob-

served that secondary wounds heal more rapidly than primary wounds, and obtain a greater tensile strength at an earlier date.[23] Fibroplasia is accelerated if the organism is already engaged in a healing process.[32]

Certain diseases, such as diabetes and nephritis, retard wound healing—as does the presence of distant infection. Difficulties in wound healing are also encountered in the presence of malignancy and peptic ulcer. It is doubtful if the presence of these co-existing maladies play a specific part in delaying healing, but rather it is the debilitating effect upon the body as a whole, in the impairment of circulation and in general depletion in the reserves in proteins and vitamins. In the course of 200 determinations, we found individuals suffering from carcinoma of the gastrointestinal tract or from gastric or duodenal ulcers, to be almost universally low in vitamin C and serum protein values.[14]

An elevation in the temperature of the wound area is thought to increase the rate of cicatrization.[9] It must be remembered that the application of heat also increases the metabolic needs of the tissues and if the rate of blood flow, to and from the area is not likewise accelerated, harm will result.

It is known that the normally healing wound is mildly acid. A pH of 5 to 7 is necessary to maintain vasodilation. This degree of acidity also inhibits bacterial growth and facilitates the activity during the lag period, in the liquefaction and removal of dead tissue and debris.[16]

Here Cortisone, ACTH,[1] heparin[2] and local anesthesia[5] have a deterrent effect on wound healing.

And so the study goes on. Time precludes the mention of the numerous contributions to this problem. Many investigators continue to add bits of information. Perhaps tomorrow the levels of those protein components necessary for normal healing will be as easily controlled as ascorbic acid levels or the prothrombin time. Where will our efforts fit into the general picture?

Dr. John Watson, surgeon to the New York Hospital, in an address delivered in 1856 before the New York Academy of Medicine, on the subject of the history of our profession, made the following observation:[27]

"It is pleasant, as well as profitable, to turn from the bustle of active life to the study of the past—to the origin of our art, to the principles and necessities that called it into being, to the struggles of our ancestry. We are thereby better able to understand our own position, to know how far we have advanced, to whom we owe our progress, the labor still before us, and the places we ourselves are likely to occupy in the estimation of those who are to follow us."

Startling advances have been made since Dr. Watson's speech 100 years ago. A review of those advances of the past fifty years, and a study of present-day contributions offer convincing proof that, although we may be justified in being both pleased and proud of the present status of surgery and the art of wound healing, we must not be satisfied. Better to say that we have made a good beginning, than to feel we have reached the peak. We must profit by the experience of our predecessors and continue to work for better things to come.

References

1. Alrich, E. M., Carter, J. P., and Lehman, E. P.: The effect of ACTH and cortisone on wound healing. Ann. Surg., 133:783, 1951.
2. Alrich, E. M., and Lehman, E. P.: The effect of heparin on wound healing. Surg. Gynec. & Obst., 87:26, 1948.
3. Babcock, W. Wayne: Ligatures and sutures of alloy steel wire. J.A.M.A., 102:1756, 1934.
4. Babcock, W. Wayne: Catgut allergy; with a note on the use of alloy steel wire for sutures and ligatures. Am. J. Surg., 27:67-70, 1935.
5. Bjorlin, G., Bjorn, H., and Sandblom, P.: The influence of local anesthesia on the tensile strength of healing wounds. Szensk Tandlakare-Tidskrift, 42: 381, 1949.
6. Cameron, Sir Hector C.: On the Evaluation of Wound Treatment During the Last Forty Years. Glasgow: James MacLehose and Sons, 1927.
7. Cumston, Charles G.: An Introduction to the History of Medicine. p. 54. New York: Alfred A. Knopf, 1927.
8. Dunphy, A. E., Udupa, K. N., and Edwards, L. C.: Wound healing; a new perspective with particular reference to ascorbic acid deficiency. Tr. Am. S. A. (in preparation).
9. Ebeling, G. H.: Cicatrization of wounds; Series No. 13, Temperature coefficient. J. Exper. Med., 35:675 and 755, 1922.
10. Ethicon Book of Sutures: New Brunswick, N. J.: Ethicon Suture Laboratories, Division of Johnson and Johnson, pp. 9, 19, 40.
11. Farenholt, A. (U. S. Navy): An account of the ravages of scurvy in Lord Anson's Fleet during a voyage around the world, 1740 to 1744. Mil. Surgeon, 25:38-47, 1909.
12. Haggard, Howard M.: Mystery, Magic and Medicine. New York: Doubleday, Doran and Company, 1933.
13. Harkins, Henry N.: Surgery: Principles and Practice (Allen, J. G., Harkins, H. N., Moyer, C. A. and Rhoads, J. E.). Chap. 2:13-14, Philadelp-Montreal: J. B. Lippincott Co., 1957.
14. Hartzell, J. B., Winfield, J. M., and Irvin, J. L.: Plasma Vitamin C and serum protein levels in wound disruption. J.A.M.A,, 116:669-674, 1941.

(Continued on Page 237)

Industry's Skill and Mankind's Benefit

By Francis C. Brown

Bloomfield, New Jersey

IT IS a distinct honor to have the opportunity of appearing before your distinguished gathering here today, to present the story of how the American pharmaceutical manufacturing industry has co-operated with physicians and pharmacists in making the theme of this symposium possible.

The firm which it is my privilege to head has a motto which exemplifies its dedication to medical service. This is, "Allied with physicians in research against disease." Our entire industry is indeed allied with physicians, for the purpose of providing the medical profession better instruments to use in conquering or managing disease.

"Yesterday's hopeless and today's cured" exemplifies the purpose of our existence as well as the theme of the meeting here today. Whatever our individual role may be, we share one common objective and this is to promote and make possible a healthier and happier life for our fellow men throughout the world.

This theme should not be misinterpreted to mean that we are taking time to reflect upon the glory of our achievements; nor should it be understood to mean that we are "resting on the laurels" because American medicine and pharmaceutical research has been brought to the forefront of the world. We fully realize, however, that through historical review we can bring more sharply into focus our present problems and our future challenges. Therefore we meet here today to take inventory of where we are going, and in plotting our future course, we take a look at the course we have followed in arriving at where we are.

In this era of rapid change and advancement in medical and pharmaceutical knowledge, we realize that only as we have built solid foundations can we reasonably look forward to future advancement. The resources which have stemmed from our past are the launching pad for our future explorations into the realm of the unknown.

For example, this clinical institute, now in its twelfth year, was made possible because such men as Dr. Morse Stewart, Dr. George Pierce Andrews and others had the foresight to organize the Michigan State Medical Society. The splendid tradition of medicine followed by the members of your society had its groundwork prepared on this soil by such men as Dr. William H. Camp, famed surgeon, whose studies were instrumental in developing the vast salt industry of Michigan, and Dr. Ernest L. Shurley, pioneer in the fight against tuberculosis and one of the first to use electricity in treating diseases of the nose and pharynx. The contributions of these men and other medical leaders in your state have enabled you to look forward to a bright future for the progress of medicine and health in your state.

This year, the American Pharmaceutical Manufacturers' Association, of which I am president, will enter the golden anniversary of the year of its founding. We frequently wonder how the organizers of our association must have felt in 1908, when they looked about them and saw hundreds of thousands of people every year dying from tuberculosis, heart disease, vascular lesions, pneumonia and influenza, and diarrhea.

Today, we in the United States see tuberculosis, pneumonia, influenza and diarrhea under the effective control of our medical men working with antibiotics and other compounds which were unheard of fifty years ago.

None of us can find complete satisfaction in these singular achievements, since we now look about us and see—heart disease, cancer, vascular lesions and other serious diseases seemingly beyond our reach—much the same as they have been for centuries; in fact, as the pressures and tensions of modern-day living build up, we see every evidence that some of the diseases are on the march forward, at least from the standpoint of comparative statistics. But for medicine and pharmaceutical research, these past fifty years have *truly* been the golden age of advancement. We

---

Presented at the Michigan Clinical Institute, Detroit, Michigan, March 19-21, 1958.

Mr. Brown is President of Schering Corporation, Bloomfield, New Jersey.

know from our ability to meet the seemingly impossible tasks during this half century that "today's hopeless" will be "tomorrow's cured."

As practically all of us know, there have been magnificent achievements in pharmaceutical and medical research since 1908. Undoubtedly there are some physicians in this audience who were able to bring to their diabetic patients the glad tidings of the discovery of insulin in 1922, which has made it possible for diabetics to live normal lives. Yet it has only been since 1922 that diabetes has not meant certain death to most patients within ten years—or even less in the case of children. The advent of drugs like tolbutamide may open the door in future years to some synthetic substitute for insulin which will vanish the dreary hypodermic injection for the diabetic patients of the future.

In this period of time, our industry has passed many historic milestones. In 1910, Ehrlich's discovery of salvarsan gave new life to our industry by establishing chemotherapy as a tool in the fight against disease.

Although we may announce outstanding drug discoveries or scientific breakthroughs with an element of pride and elation, we in the industry fully realize that these developments may well be accompanied by, or produce new problems, which frequently equal those of the original research.

Sir Alexander Fleming discovered the penicillin mold in 1928 and yet it wasn't until the close of the second World War that the American pharmaceutical industry was able for the first time to produce this lifesaving antibiotic in sufficient quantities to meet our total needs.

Toward the dawn of this century, "pneumonia" was a dreadful word. There was no specific therapy with which to combat it. The mortality ratio stood at approximately 50 per cent. Today, thanks to the advance of medical science when antibiotics are readily available, the mortality has dropped to 4 or 5 per cent.

In World War I, before the sulfonamides or penicillin were known, deaths among our servicemen due to pneumonia amounted to 18 per cent of all service deaths, whereas in World War II these drugs had reduced the death rate among them to 7/10 per cent of the total casualties.

In retrospect, we can also reflect on the one million Americans who died during the influenza epidemic in 1918. Only recently we have seen how the threatened Asiatic flu epidemic could be ameliorated through the co-operative efforts of the industry and the medical profession.

In 1894, Dr. Edward L. Trudeau established at Saranac Lake, New York, a laboratory for research in tuberculosis—the first of its kind in the Americas, and as late as 1916 the Trudeau School of Tuberculosis was established there to give specialized instruction in the treatment of tuberculosis to practicing physicians. Barely forty years later the famous sanatorium which had accommodations for an average of 1,500 patients was closed for lack of patients.

The advance of chest surgery, improved sanitation, the widespread use of simple diagnostic techniques, including mass x-ray, and the development of basic drugs such as streptomycin and isoniazid have enabled the medical profession to bring tuberculosis under good control. This disease which was widespread at the beginning of the century has not been completely licked, it is true, but in the United States it no longer symbolized death.

Fifty years ago, diarrhea and enteritis (which we commonly know as dysentery) contributed greatly to the death rate; particularly among infants and children. While dysentery is still with us as a disease, it can now be managed and cleared up successfully with the aid of a variety of modern drugs such as the nonabsorbable sulfonamides, and several antibiotics. The death rate from this cause has fallen to a mere fraction of the former rate which made it sixth among the causes of death.

The communicable diseases of childhood—measles, scarlet fever, whooping cough, and diphtheria—in 1900, ranked just after cancer as causes of death. Today, with the development of immunizing vaccines and antitoxins the death rate from these causes has fallen to less than one-thirtieth of the 1900 total. While whooping cough and diphtheria are serious infections, they are almost never encountered today among children who have been immunized.

Typhoid fever was frequently encountered at the beginning of the century and accounted for a significant death rate. The disease is now almost unknown in our country and no deaths have been reported for almost ten years. It has fallen victim to the advance of sanitation, the universal use of chlorine in municipal water supplies, and typhoid vaccines.

In spite of the arsenicals, syphilis with its horrible consequences was widespread around the turn of the century. For the period 1920-1924, deaths from syphilis had jumped to 17 per 100,000 of our population. There was widespread emphasis on the dangers of this and other venereal diseases in the public health services of our federal government and of the states and cities. With the advent of World War II, our armed forces were scattered throughout the world where many were exposed to this dreadful disease. However, aided by the important pharmaceutical tool, penicillin, which came along with the war, our alert medical personnel were able virtually to eradicate this disease. Many medical professors would have great difficulty in finding a patient with a typical Hunterian chancre for case study presentation to his classes today.

The diagnosis of Addison's disease, acute pemphigus vulgaris or disseminated lupus erythematosus was a certain death warrant fifty years ago. With the development of adrenal extract the synthesis of desoxycorticosterone and later cortisone, Addison's disease was brought under control and with the development of the newer corticosteroids, the grim prognosis of pemphigus and disseminated lupus was changed to one of bright hope. Many of these patients can not only be kept alive, but many can be helped considerably under careful medical management with the use of these new medical tools.

At the beginning of the century, the conditions of our mental hospitals were deplorable, to say the least. Once patients were admitted to these inadequate hospitals, they were virtually life-long prisoners. Today, our mental hospitals are the finest in the world. Thousands of patients are being rehabilitated and discharged home from these hospitals as a result of the use of the newly developed psychotherapeutic drugs. There are some who believe that the advances made in treating mental disease with drugs may make it unnecessary for the future large institutions which have been so costly to build and maintain and so difficult to staff; that we may soon be able to rehabilitate most mental disorders by a short hospital confinement, followed by outpatient care which will allow these people to remain on their jobs and to reside in their home communities as useful citizens. The savings in human resources which this will mean are enormous.

Today we are armed with vaccines, antibiotics and chemotherapeutic agents which can combat many of the previously serious or fatal diseases. American medical and pharmaceutical research laboratories have opened new vistas in the treatment of disease. Broad-spectrum antibiotics, cortisone, hydrocortisone, prednisone and prednisolone, tranquilizers, new vaccines—all these and many others have come about since World War II.

This, then, is the past. These are the foundation blocks, the launching pad for moving into the future. Each company in the pharmaceutical industry knows that its life blood is research. More than $127 million are spent annually on basic and applied research by the pharmaceutical industry in the United States. This is about 7 per cent of total pharmaceutical sales, both ethical and proprietary. However, most of this sum was spent by the ethical drug firms looking for new prescription products with most ethical companies spending between 5 and 10 per cent of their sales for research and development. The ethical drug companies normally account for the newer and better pharmaceuticals.

Yet, many of the companies which pioneer original research into new avenues of medicine know that they face odds which are frequently out of proportion to the risks of the research firm. Frequently, millions of dollars invested in researching and developing products result in products with a short life, due to newer concepts. Often a new product is rapidly outmoded by a new development of the same company or of some competitor. This is an integral part of the risk involved under our system of competitive free enterprise.

Faulty patent protection in some foreign markets and frequently the long-drawn-out period required to obtain a patent, places a discovering company at a disadvantage. Many "generic name" manufacturers, which almost never either conduct or sponsor research programs directed to the discovery of new therapeutic agents, will copy the discoverer's product and offer it at ridiculously lower prices, which they can sustain only because: (1) they do no research and (2) they spend little or nothing in helping the medical profession gain knowledge of the uses of new medicinals, by way of promotion or detailing.

Patent protection for new medical products is an important stimulus to medical progress. The great medical discoveries which produced insulin,

the sex hormones, the cortical steroids, the sulfonamides, the antihistamines, the psychotherapeutic agents, have all come out of countries that have strong patent laws. This is natural because patents are incentive to discovery. Yet our patent laws, which go back to 1790, have been under pressure of increasing criticism for the past ten years, and there are some who have confused patents with illegal monopoly. Patents not only prevent science from going underground, they are one of the greatest bulwarks against socialized medicine and should have the unquestioned support of the medical profession against all attacks.

Moreover, I believe that it is in the interest of the public that the medical profession support the companies which sell under specialty trade names and to discourage those who sit on the sidelines and copy their products without joining in the attack on disease by actively conducting and supporting research. It is interesting in this connection to note that there has been a steadily increasing trend toward prescribing by specialty name. In the last five years, new prescriptions by specialty name have increased from 74 per cent to 83 per cent of the total, while generic name new prescriptions have declined from 16 per cent to 12 per cent, and compounded prescriptions from 10 per cent to 5 per cent.

Then, too, the manufacturer often faces the irate professional man or a member of the general public, who charge, "If all the money your companies spend in promotion were cut in half, prescriptions would cost much less."

The truth is, that if promotional costs were eliminated, the price of the prescription would be affected very little. In the February 16, 1957, issue of the *Journal of the American Medical Association,* many of you undoubtedly read the excellent editorial on this subject which pointed out that promotional costs represent approximately 5 per cent of the total value of the product. In other words, if we ceased to inform our professional men of our latest developments and the uses for our products, our savings of promotional dollars would reduce a 50-cent prescription to approximately 47 cents.

The relative insignificance of promotional cost can best be stated in terms of the average cost of *medical care* per patient. Measured in terms not only of the prescription cost but the probable physicians' charge as well, promotion costs are only about 2 per cent of the total.

However, it is not my intention to burden you with the problems, large and small, that our industry faces. We, like you, the practicing physician, are dedicated to our task. We, like you, fully realize our responsibilities to the profession and the public in general. However, we must also realize that, as a business organization, we also have a moral obligation to return to our investors a fair return on their investment in our operations.

Before World War II, the American pharmaceutical industry had made little headway. This was due primarily to a lack of research on the part of our member companies. Many American manufacturers sat quietly in the shadows of foreign competitors until the late thirties, when we realized that a rapid reappraisal of our industry was necessary for the welfare of our nation. This challenge was met successfully, as many of us can attest today. Out of the war we therefore derived one substantial benefit. It turned our minds to research.

But we cannot become complacent over our gains. Complacency's only achievement is ultimate defeat. Never before in history has cooperation between physicians, pharmacists and drug manufacturers been needed more than today. That is, a unified effort directed at making today's hopeless tomorrow's cured.

The launching of the first Russian Sputnik into the heavens suddenly focused our attention on our national complacency and the relative inadequacy of some of our scientific programs. In quick succession, we heard speech after speech extolling us to encourage our youth to train in the sciences. This is also true in medical and pharmaceutical research where we need the minds and desires of young men and women who will emulate men such as Pasteur, Laennec, Koch and Lister to account for the advances of the future. Continued dissatisfaction with our present and a desire to improve it will assure a more hopeful future.

Most significant to me, is the challenge of the present. Within the past two years, we have seen the reaction of our people and our government leaders to President Eisenhower's serious illnesses. World conditions being at a straining point have indicated the desperate need for strong leaders in the free world. Despite all our scientific advances in ballistic missiles and in military weapons, our future is only as secure as our leadership.

Heart disease and cardiovascular disorders are taking a tremendous toll of many of our nation's most brilliant and capable men, many of whom would ordinarily have had many years of productive life remaining by which we would have all profited.

To attain health for our entire population, we must do more than nourish a desire to combat illnesses. We must attack the sources of these diseases which rob us of the men and women upon whom our future depends. We must encourage healthier living habits among our young people on whom we would rely for defense in case of world conflict.

These goals of insuring our leaders and our people of healthier lives will only be met by the co-operation of physicians, pharmacists, and pharmaceutical and medical research organizations.

We must encourage our young men and women in medicine, in pharmacy, in biological sciences and in our industry to focus on our common aim in life—to aid and further the well-being of men.

We must also turn more attention to research into the basic problems of health in order to determine the causes and functions of disease-causing organisms. Today, our industry sponsors thousands of research projects in medical colleges and other colleges and nonprofit institutions throughout the nation. Further aid must be forthcoming from both industry and the professions. Advancements in basic research will benefit all of us.

But we must impress upon the public that the progress of science is often slow and that if our health problems are not resolved soon, it is not because of lack of intelligent effort, and although quicker and better communication between scientists working in the same areas is needed, the solution of health problems requires a depth of time which crash programs will not ordinarily supply. It takes the impact of the findings of one mind upon another mind that is receptive and ready to carry on further to bring about such solutions, and generations sometimes pass before the seeds of one mind's findings fall upon the properly prepared soil of another generation. Crash programs supply neither time nor perspective nor experience. Only time can supply these needed factors.

Every so often a crash program may be undertaken, as is now being done in the field of cancer where public emotion is so great and where the complexities of the process have so long defied solution and where the ravages are so great. But these must be the exception. There is danger of such programs in that they may divert us from *Basic Research,* to a search for *end products* before we have ascertained the causes and this slows down the ultimate progress of science. Moreover, it may tend to lead the government *away* from its *historic role as patron of basic research* into *applied research,* which, under our economic system, is the proper field for private initiative, whether university, industry or individual.

The pharmaceutical industry's broadening research programs into virus diseases, enzymes, steroids, hormones and radioactive drugs may well be the basis for future breakthroughs in our most pressing national health problems.

Most research projects such as these represent departures from older or more standard procedures. Frequently, these represent millions of dollars in expense which may or may not produce results. However, the industry accepts this challenge with faith, since so long as our system of free enterprise is preserved, the horizon for discovery will be unlimited.

Greater co-operation and exchange between industry and the professions will provide for a mutual understanding of problems faced by each group. The critics of industry and medicine ultimately cry for tighter governmental controls. This, in turn, leads to a socialistic economy. Frankly, none of the responsible manufacturers of pharmaceutical preparations object to governmental controls to the extent necessary to insure purity and high standards of manufacture. In fact, responsible manufacturers *want* such controls. However, if the industry should become more directly under the supervision of government, the result will be to stagnate progress and to force us to look only backward and not ahead. We must, therefore, look askance at suggestions that advertising by the industry addressed to informed professions should be censored by government, that the principle of product certification by government should be extended beyond the present area of antibiotics and vaccines, or that more extensive research for disease cures should be financed by the government, thereby diverting our taxes into research that can best be conducted under private control.

The challenges of the future can and will be

met by medicine, pharmacy and the drug industry, providing we continue to operate in an atmosphere of freedom from unwarranted regulation or restriction.

The code of ethics subscribed to by our Association of Manufacturers represents the same high traditions as that subscribed to by members of the American Medical Association.

American Pharmaceutical Manufacturers Association

Code of Ethics

We Believe

That the pharmaceutical manufacturer should ever be mindful of and guided by the fundamental principle that his business is a solemn calling and a glorious profession dedicated to a great and paramount public service.

We Believe

That the pharmaceutical manufacturer should always be animated by a true spirit of justice, amity, responsibility and service in all his dealings with others and unswervingly act at all times in pursuance of the elementary conception of right, honorable and ethical business conduct as befitting his membership in a society built upon the sure foundation of a democracy, organized in harmony with the most enlightened civilization in history, inspired by the teachings of our divine master, and finally directed equally to preserve the opportunity and rights of each for the benefit of all and to enhance the general happiness and welfare.

We Believe Therefore,

That it is the unquestioned obligation of each and every pharmaceutical manufacturer

To manufacture medical preparations only under proper conditions and of established value, pure and accurate in composition, and true upon and to their label.

To label, advertise and merchandise such preparations only in a manner wholly free from misrepresentation of any kind, in complete accord with both the spirit and terms of the applicable laws, and in entire harmony with the highest standard of commercial morality and ethics.

To refrain from in any way or to any extent infringing upon the equal rights (whether moral or legal) of a competitor and unfairly interfering with his business, as by uttering false or disparaging statements about him or his products or his business by misappropriating his trade names or formulae or the distinctive form or dress of his products, or by enticing away his employes.

In short, constantly, earnestly and conscientiously to strive at all times and in all ways to advance the science and to elevate the profession of manufacturing pharmacy to the highest and idealistic plane of public value to the end that it may best and most completely serve the medical profession and the public at large.

This We Do Believe

"Whatsoever ye would that men should do to you, do ye even so to them."

The standards which both of our groups have set for their operations would seem to many of our counterparts in other nations as goals impossible of achievement. Yet, these codes were outlined by our organizations to produce, and they have produced for our public the finest drugs, medical care and treatments in existence.

We are also aware of how the American public has benefited because each company is proud of and careful to maintain its corporate prestige and reputation. Similarly, the practices of the medical profession being on the highest professional plane have given our people abundant faith in the medical profession.

Each ethical pharmaceutical company has pride in its corporate name and the products of its research which bear its labels. That is why our ethical industry markets its research discoveries as trade named products. We purposely wish to distinguish them from other similar "brand-nameless" products, which at best are secondary imitations. Our trade names are our protection for the quality of our pharmaceuticals and our research much the same as the initials "M.D." after a physician's name distinguishes his professional character from the unlicensed charlatan.

There are undoubtedly some complaints about trade name practices or promotional mailings which, as physicians, you could make. Yet, I hold that the industry of the future must go one of two ways. It will continue to advance as it is doing and provide medicine with therapeutic tools of value or else it will be squeezed into senseless conformity, thereby losing its identity. The normal consequence of complete conformity is mediocrity. Conformity imposed by the socialized medical system of Great Britain, with its approved formularies and regulated prices, has greatly restricted the progress of medicine in that great country. Companies with pride in their research accomplishments will never subscribe to having their products classed as another Grade A aspirin, or another hormone—they will always wish to have them specified by their chosen specialty names—names which impart quality and signify the progress which research makes.

The solution of many of our mutual problems will be solved only with the passage of time and sincere efforts directed toward closer co-operation between the members of the health professions and industry.

I am happy to say that the presence of pharmacists and manufacturers at your institute this

(Continued on Page 243)

Tympanoplastic Procedures for Chronic Ear Infections

By James E. Croushore, M.D.
Detroit, Michigan

THE surgical treatment of chronic ear infection was developed more fully in Germany than in any other country about seventy-five years ago. The standard operations were the simple, modified radical and radical mastoidectomies. These operations, especially the radical mastoidectomy, were designed to eradicate infection and obtain a dry ear without any attempt to preserve or improve hearing. In fact, the residual hearing was usually sacrificed by the radical mastoidectomy.

In 1938 Lempert[2] of New York first published an article on the fenestration operation for otosclerosis. He subsequently published numerous articles on technical improvements of this operation and other surgical procedures for infections in the temporal bone. He stressed complete knowledge of the surgical anatomy, meticulous technique and above all the use of magnification to perform this exacting surgery. Lempert's teaching prepared other otologists to use these technical methods in developing reconstructive procedures on damaged ears due to chronic infection.

Employing the basic principles, advocated by Lempert, otologists in Germany led by Wullstein, Zollner and Heermann developed various technical procedures, designed not only to eradicate infection but to preserve and frequently to improve hearing. Otologists in other countries, especially England, have contributed to this development.

Attempts have been made to classify ears according to the pathologic changes produced by the chronic infection and the surgical procedure employed to correct the damage. The following classification is quite inclusive of the various degrees of destruction found at operation (Fig. 1):[1,3,4]

Type 1.—Lesions affecting the tympanic membrane and tympanic cavity and without damaging the ossicular chain.

Type 2.—Lesions affecting the tympanic membrane and tympanic cavity with minor lesions of the ossicular chain, such as necrosis of the long process of the malleus.

Type 3.—Lesions affecting the tympanic membrane, cavity and ossicular chain without damage to the stapes.

Type 4.—Lesions affecting the tympanic membrane and cavity and ossicular chain with damage of or destruction of the stapes.

Type 5.—As Type 4 together with disease of or closure of the round window.

Type 6.—As Type 5 together with disease or closure of the oval window.

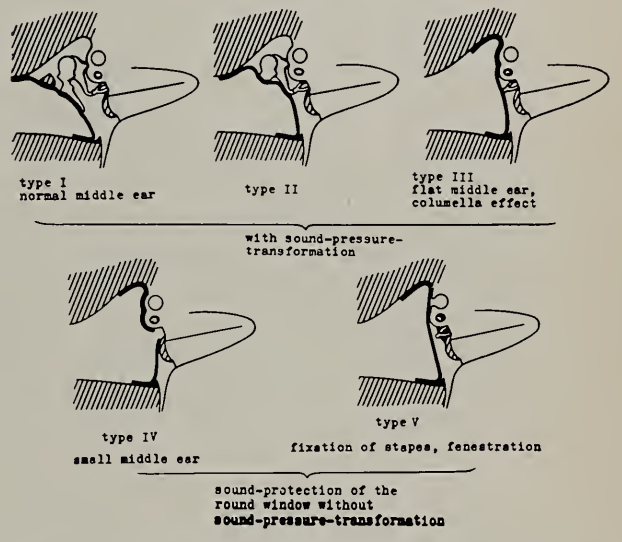


Fig. 1. Wullstein's Classification of Types of Tympanoplastic Operations. (Tr. Am. Otol. Soc., 1956.)

For reconstruction of the damaged middle ear the following operative goals are of prime importance:

1. The reconstruction of the hydrodynamics of the inner ear in the scala vestibuli through the oval window or through creation of a new window in the lateral semicircular canal and in the scala tympani, through the round window niche and membrane.

2. Restoration of the proper function of the Eustachian Tube.

Presented at the Annual Meeting of the Michigan Chapter to the American College of Surgeons, March 18, 1958.

3. Reconstruction of an air-filled tympanic cavity, covered with mucous membrane and free from epidermis.

4. Implantation of a mucous membrane graft in very severe infections or extensive defect of the mucosa.

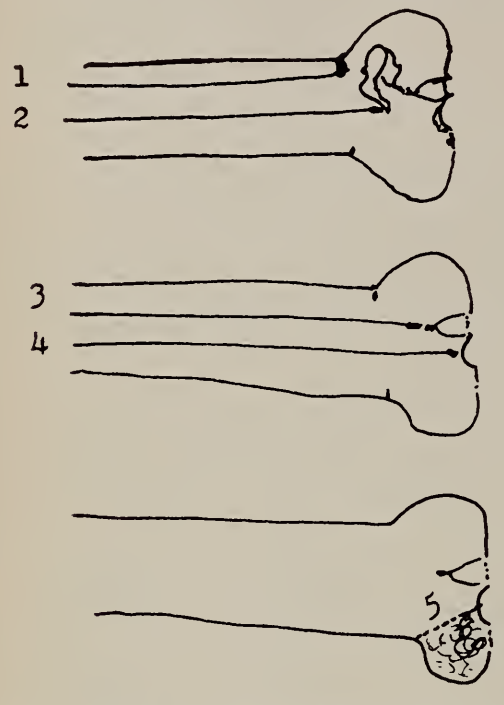


Fig. 2. Technique for use of electric diagnostic probe.
1. Probe to annulus (bone conduction).
2. Umbo compared with annulus.
3. Probe to head of stapes.
4. Probe to promontory (bone conduction).
5. Pack off round window with cotton saturated with mineral oil. If hearing is:
   (a) Better, then oval window is open.
   (b) Same, indefinite.
   (c) Worse, then oval window is immobile.

5. Creation of sound protection for the round window and, if possible, restitution of sound pressure transformation to the oval window through substitution of the partly or totally defection tympanic membrane (skin graft).

Thus to obtain a dry ear and improve hearing several requirements must be fulfilled:

1. The chronic infection must be eliminated completely and all complications must be definitely prevented.

2. One must build a new air-filled, closed tympanic cavity which is properly ventilated through the tube.

3. At the same time, a new system for conduction of the acoustic stimuli through the middle ear to the cochlea must be constructed.

One can readily visualize that each case presents its own individual problems and draws upon the surgeon's ingenuity as the pathological changes are revealed under the operating microscope.

The necessity of a closed tympanic membrane to aid in elevating the hearing is appreciated since the areal ratio of the tympanic membrane to the stapedial footplate is 28 to 1. The ossicles have a lever mechanism, of 1.3 to 1. Thus the transformal ratio is $1.3 \times 28 = 36.4$. Also the disruption of the ossicular chain results in about a 35 to 40 decibel hearing loss.

Not only does a perforation in the tympanic membrane result in a decrease in the areal ratio, but the perforation permits sound waves to strike the round window resulting in a negation of the impedance mechanism between the oval and round windows.

Satisfactory improvement in hearing cannot be obtained from tympanoplastic surgery unless there is good cochlear reserve. Certainly the bone conduction should not be below the 30 or 35 decibel level if practical unaided hearing is to be achieved. Wullstein[2] has indicated the clinical factors which constitute the indications and prognosis for tympanoplasty according to their audiological significance:

1. Quality of the inner ear.
2. Function of the Eustachian tube.
3. Hydrodynamics of the inner ear.
   (a) Function of the round window
   (b) Function of the oval window
   (c) Function of the new window
4. Quality of the mucosa.
5. Quality of the tympanic membrane.
6. Quality of the ossicles.

Considerable information about the mobility of the oval and round windows at times can be obtained by use of the electric diagnostic probe. At the same time additional information is gathered about the cochlear reserve. Kobrak, in his preoperative testing in our clinic, employed the technique illustrated in Figure 2.

The contraindications to tympanoplastic surgery are:

1. Complications of the middle ear and mastoid infection which are a danger to life. If meningitis, brain abscess or sinus thrombosis has occurred, basic surgical principles as eradication of the focus

of infection and drainage are employed without consideration to reconstruction of a sound conduction mechanism.

2. Poor cochlear reserve. When auditory nerve function is poor, the primary purpose of surgery is to eradicate infection and obtain a dry ear.

Skin for the graft is obtained from the medial third of the posterior surface of the auricle and the adjoining area over the mastoid process. Full thickness skin is excised and then the oval shaped graft is denuded of all subcutaneous fat until skin only remains. Skin in this area has but few elastic fibers which deminishes shrinking of the graft as healing ensues. Extreme care must be taken to exactly fit the graft to a properly prepared bed. Bone adjoining the marginal remnant of the de-epithelized tympanic membrane must be completely freed of skin. There must be no wrinkles in the edges of the graft and allowance is made for the moderate shrinkage. Gelfoam saturated with hyaluronidase is placed in the hypo-tympanum to give support to the graft and insure an air passage from the Eustachian tube to the round window.

The postoperative care must be conscientious and meticulous. All packs are removed in nine to twelve days. Inflation of the Eustachian tube is commenced in about three weeks and continued weekly for two months.

In his zeal to improve hearing there is the temptation to preserve damaged ossicles and possibly not meticulously remove all pathological material. The surgeon must constantly be aware of this dilemma.

References

1. Beals, P.: Early experiences of the plastic surgery of the sound conducting apparatus with report of 57 consecutive cases. J. Laryng. & Otol., 71:297-312 (May) 1957.
2. Lempert, J.: Improvement of hearing in cases of otosclerosis. Arch. Otolaryng., 28:42-97 (July) 1938.
3. Wullstein, H.: The restoration of the function of the middle ear in chronic otitis media. Tr. Am. Otol. Soc., pp. 185-210. 1956.
4. Zollner, F.: The principles of plastic surgery of the sound conducting apparatus. J. Laryng. & Otol., 69:637-652 (Oct.) 1955.

3001 W. Grand Boulevard
Detroit 2, Michigan

PHYSIOLOGY OF WOUND HEALING

(Continued from Page 228)

15. Harvey, Samuel C.: Healing of wound as biologic phenomenon. Surgery, 25:655, 1949.
16. Hermannsdorfer, Reimers, Winkler: Quoted by Coller, F. A.: Wound Healing and the Treatment of Wounds. Unpublished lecture: Personal communication.
17. Jones, Thos. E., Newell, Edward T., Jr., and Brubaker, Robt. E.: The use of alloy steel wire in the closure of abdominal wounds. Surg., Gynec. & Obst., 72:1059, 1941.
18. Localio, A. A., Morgan, M. E., and Hinton, J. Wm.: Biological chemistry of wound healing; effect of dimethione on healing of wounds in protein depleted animals. Surg., Gynec. & Obst., 86:582-590, 1948.
19. Mason, Michael L.: Wound healing. Internat. Abstr. Surg., 69:303, 1939.
20. Morgan, T. H.: Physiology of regeneration. J. Exper. Zool., 3:457, 1906.
21. Morris, Robert T.: How We Treat Wounds Today. New York: G. P. Putnam's Sons, 1886.
22. Pilcher, Lewis S.: The Treatment of Wounds. New York: Wm. Wood and Co., 1899.
23. Sandblom, P.: Effect of injury on wound healing. Ann. Surg., 129:305, 1949.
24. Sokolov, S.: Das Aufplatzen der Bauchwunde nach Laparotomie mit Eventration. Ergebn. d. Chir. u. Orthop., 25:306, 1932.
25. Thompson, W. D., Ravdin, I. S., and Frank, I. L.: Effect of hypoproteinemia on wound disruption. Arch. Surg., 36:500, 1938.
26. Walker, Earl: History of Neurologic Surgery (Green, Robt. E. Stern, W. Eugene). Chap. 3:61. Baltimore: Williams and Wilkins, 1951.
27. Watson, John: The Medical Profession in Ancient Times. p. 16. Printed for the New York Academy of Medicine by Baker and Godwin, 1856.
28. Whipple, Allen O.: The critical latent or lag period in the healing of wounds. Ann. Surg., 112:481, 1940.
29. Wiley, H. N. and Sugarbaker, E. O.: An evaluation of abdominal wound closure; steel wire layer closure compared with catgut-silk layer closure. Surg., Gynec. & Obst., 85:84, 1947.
30. Wise, Thomas A.: Review of the History of Medicine. London: J. Churchill; Edinburgh: Adam Black and Company; Bombay and Calcutta: Wm. Thacker and Company, 1867.
31. Wolbach, S. B., and Howes, P. R.: Intercellular substances in experimental scorbutus. Arch. Path. & Lab. Med., 1:1, 1926.
32. Young, J. S., Fisher, J. A., and Young, M.: Some observations on healing of experimental wounds in skin of rabbit. J. Path. & Bact., 52:225, 1941.

7815 E. Jefferson Avenue
Detroit 14, Michigan

Editorial

THE DOCTOR AS A CITIZEN

Every doctor owes a debt to the community where he lives and practices medicine. That community is a good place to live and raise his family because civic minded citizens have made it so by dint of their endeavors.

Every doctor should be a leading citizen. He may be the busiest man in town but that doesn't excuse him from the obligation of giving something of himself to some civic project. He will quickly find that his training and experience makes him a very valuable man to the citizen committees who work for the betterment of his community.

The day when a doctor could place himself on an isolation pedestal apart from other men is gone. It is doubtful that it was ever a diplomatic excuse for the professions' lack of community effort. It has only been in recent years in many towns and cities that doctors have met their fair share quota of United Fund Drives. Today it is unthinkable in most areas for the medical profession not to oversubscribe their allotments.

The doctor of today must be interested in politics. His very professional existence may depend on that interest. Last year 704 bills of medical interest were introduced in the National Legislature while ten years ago the number was 200. Ninety-two bills on health were introduced in our Michigan State Legislature ten years ago, 137 in 1957.

The Forand Bill, which is socialized medicine for all those eligible for social security benefits, is high on the agenda for next year's Congress. The lobbyists are girding themselves for another effort on these matters and the citizen doctor should be aware of the need for all possible support to organized medicine. His county and state medical societies and the AMA are fighting his battles for him and the ultimate medical welfare of the public and they need his support.

The doctor of today, as a good citizen, must be alert to these, his duties as a responsible member of his community.

OLIVER B. MCGILLICUDDY, M.D.

THE DOCTOR IS A CITIZEN

As we were making the final editorial revisions and comments for this number of THE JOURNAL, which is dedicated to extolling the medical men as worthy citizens, came a news item and an editorial in the *Detroit Free Press* for January 3, 1959.

MEDICAL-CENTER CURE FOR A BLIGHTED AREA

The Federal Government's authorization for Detroit to start planning development of a huge mid-town medical center starts the city off in the New Year with bright hopes.

The proposed $100 million development is not going to become reality for several years. Under existing schedules, it may not be completed until well into the 1970s.

Nevertheless, this huge and necessary undertaking has been given the assurance of Federal aid, and the next few years should see substantial progress.

What is envisioned is the clearance of about 235 acres between Mack, Warren, Woodward and Hastings, eliminating some of Detroit's worst slums, and creating not only a vast medical center but also a high-type residential district.

Being close to Wayne State University and the expanding cultural center, this development should have a tremendous impact upon the heart of Detroit. In relation to the Civic Center, it should contribute to almost complete rehabilitation of the city from the river to the boulevard. And it is reasonable to anticipate that, even before it is fully complete, it will have a salutary effect upon large adjacent sections of Detroit.

The news item of January 1, 1959, and the above quoted editorial mark progress in a great idea showing the force and wide extent of benefit in the ambition and progress of Detroit's medical profession. Editorially (July, 1956, page 830). THE JOURNAL reported "Plans for a New Medical Center," using Harper Hospital, Grace Hospital, Women's Hospital and Children's Hospital plants now in operation. The surroundings of some of these hospitals were slum areas. It was proposed to acquire about eighty-five square blocks surrounding these hospitals, extending from Woodward to Hastings—the new expressway—and from the Edsel Ford Expressway to Mack. About six of these eighty-five blocks were to be occupied by Harper, Grace and Women's Hospitals and the auxiliary services. An extension was to include Children's Hospital which is some distance re-

(Turn to Page 240)

The Community: A Challenge in Responsibility

Not too many years ago, the medical profession was reawakened by public cries for additional participation in community affairs.

From my vantage point in January, 1959, it is encouraging to be able to say that Michigan doctors of medicine have risen to new heights as participants and leaders in community affairs.

During and shortly after the War, the physician was of necessity forced to reduce his civic activities, because he was completely absorbed in his role as the health guardian of the public. But his absence from community functions, no matter how justified, was soon criticized by his fellow citizens. The doctor then came to the realization that his position of respect and prestige in the community bore a direct relationship to his participation in activities with his friends and neighbors.

During 1958, it was my distinct impression that Michigan doctors have found a better balance than ever before between their primary responsibilities as a physician and subordinate duties as a citizen and neighbor.

In 1958, an impressive record of achievement has been racked up by physicians throughout the State in non-medical fields including politics, religion, civic clubs, voluntary health groups, education and civic government, to name but a few. To be more specific, during the last year at least three doctors were named by their communities as Citizen of the Year; at least one served as Mayor; countless were elected to public office (school boards, supervisors, coroners, medical examiners) and so on.

My hat is off to these men who have served so well their communities and their profession.

Principally by these means will medicine develop an ever-better rapport with the public.

Delbert B. Hollenbeck

President, Michigan State Medical Society

President's



Message

moved. The whole area is about 200 acres and includes some worthwhile structures which would help make the center more useful and attractive.

It seemed a most impressive and ambitious dream which included slum clearance, Wayne State University campus extension and innumerable new facilities, residence areas, and so on. On December 31, 1958, the Federal Housing and Home Finance Agency approved the spending by Detroit of $9,147 for first plans indicating Government approval of the general project, the largest in the country. The medical campus will be developed in a 235 acre area including that mentioned above. The program calls for the expenditure of $10 million of city funds and $20 million federal funds. Private expenditures of existing and projected improvements will exceed $100 million. This is a most interesting concept of the "Doctor as a Citizen."

AGED CARE PLAN

"The House of Delegates of the American Medical Association has approved a report which calls for physicians to provide medical services at adjusted rates to 'persons over sixty-five with reduced incomes and very modest resources.'"

This action was adopted unanimously by the House of Delegates approving a resolution which has been introduced through the AMA Board of Trustees by the Council on Medical Service. This resolution had been written and re-written. It has been the subject of months of study by the AMA Council on Medical Service. It had been presented to the Board of Trustees with trepidation because of its far-reaching implication, but the Board of Trustees had actually strengthened its intent and emphasized its wording. The reference committee had also spent many hours in phrasing its statement of principles which was quoted last month.

Family physicians in private practice throughout the ages, members of the American Medical Association traditionally have given care and attention to their self-reliant, proud and independent older patients, even though the resources of these people have been inadequate to provide for their retired, non-working years. In those days, every doctor had a few patients among his respected clientele to whom he never, or almost never, made any charge —or a token one, ridiculously small. Most of our doctors still have these loved and loving patients and old friends. In past years, this list also included the indigent, the respected victims of circumstances—but still indigent. Most of these were treated free by physicians, some were dependents of the county, the city, the welfare agencies, relief agencies and the charities—Salvation Army, Jewish Relief and St. Vincent de Paul, and others.

The truly indigent have always been subjects of public or private relief. The Journal of the Michigan State Medical Society, in an editorial "Government Wards Not Indigent" (November, 1945, page 1216), reported the action of our own House of Delegates and the earlier action of the Executive Committee of the Council in the previous February which declared that "wards of the government on public relief are not indigent." The Government, by its very action of adopting and accepting them, had removed them from that category. It should pay reasonable fees for their medical attention as well as food, shelter and clothing. The old policy of paying the doctor half or less than half of regular fees was disclaimed and disapproved. Governmental agencies should pay reasonable fees. A committee was appointed and a Schedule of Fees for Governmental Agencies was developed. (Incidentally, it was this schedule adopted, published and in use in Michigan which sold the home town care for service-connected disabilities of veterans to the Veterans Administration.)

The recent action of the AMA House of Delegates does not refer to this indigent group of people. It refers mostly to unwilling victims of circumstance for whom adjusted rates and charges are suggested. The Federal Congress, in the middle years of the 1930's, after long consideration and demands from leaders of labor, established age sixty-five as the retirement age at which laborers and employed people were supposed to retire and allow the younger groups to take over their established and desirable jobs. The Government established the compulsory retirement program by autocratic action.

The medical profession objected, considering this measure uneconomic and in many ways vicious. To date, the profession has refused to join the Social Security program. This action of the United States Government placed hundreds of thousands, and now millions of people in the unemployment rank. Some had been able to lay aside modest resources, but too many must depend only upon the meager returns of the Social Security program.

These "benefits" have been increased periodically until they have reached in some instances a fair-sounding amount. The top allowance now is $116.00 per month for the retired worker and half that for his wife.

People on fixed "benefits" whether on annuity, set income or social security are again victims of forces far beyond their control. The dollar has not been stable. The Government has failed to set a fixed standard. Labor and employed people by constantly increasing wage and salary demands have helped reduce the purchasing value of the dollar. In the 1930's, the United States was taken off the gold standard. Gold was called into Fort Knox and paper money was reduced 39 per cent in value by setting an artificial value on the gold. In the last twelve years, increased costs of living including wage, salary and other costs, have reduced the dollar to $0.47.

The result has been tragic, especially for our senior citizens who had no chance to recuperate, no chance to plan ahead. They are complete victims of inflation which has overtaken the nation. These "persons over sixty-five years of age with reduced incomes and very modest resources" are included in the recent action of the AMA House of Delegates. It is they for whom the Blue Shield throughout the country and some other insurance groups are attempting to write another insurance policy to supplement those in existence which the person with means and resources can still buy. There must be some readjustments in the age restrictions for non-groups joining Blue Shield. There has never been an age limit for groups joining, and no one is ever cancelled on account of age. Twenty-nine plans now have no age limit specified for non-group subscribers. Thirty-two have age sixty-five specified, and the others have various age limits and restrictions. Abolishing these limits is the first step in complying with the newly announced principles by the AMA House of Delegates.

The Blue Shield Commission immediately (on December 5) started work on a suggested master formula which the various state and local plans could accept or modify according to their local requirements or obligations. We believe this expression of principle by the AMA is the most important action the AMA has taken in many years. The development of Blue Shield Plans has been from the "grass roots," with small groups in various areas developing simultaneously.

For years the AMA administration and medical economic departments were begged for assistance, but local, state and county groups were advised to practice medicine and leave insurance to insurance people. The AMA has made a complete reversal of position, for the first time taking the lead and advising service contracts for these millions of people with reduced or no incomes and modest resources. Victims of governmental policies, they are an ever-increasing group.

The medical profession must treat these patients regardless, because they do not count in the category of state, county or city welfare service except as they might be declared medically indigent on occasion. These, our doctors *will* care for, if possible by insurance methods (but privately anyway), as the profession always has done.

NATIONAL LEGISLATION

Forand Bill

Substitutes for the Forand Bill will be introduced early into the new Congress and will immediately be sponsored by the senior citizens worried about the care of the aged, labor and welfare organizations. Innumerable persons will support this measure, as they did in the last Congress.

For the medical profession, it has a very serious portent. The bill in the last Congress provided for surgical and hospital care for "beneficiaries" of Social Security. That includes everybody over sixty-five on retirement or not, who are drawing benefits and/or retirement pay—also allowances for disabilities. There was no limitation on account of ability to pay. One can easily imagine how many people over sixty-five would promptly seek these services. The number of persons over sixty-five is constantly increasing, now over 15 million. That is a large proportion of our total population to be placed in the category eligible for care under federal supervision and payment.

It is estimated that only 27.7 per cent of these elderly citizens have no other resources for taking care of their needs than what they get from Social Security, and some meager annuities and pensions. These are the people for whom the AMA proposed a new prepaid reduced rate service insurance program. The balance—the millions who are capable of self support should not be radically and automatically included, either in this AMA program or in the Social Security program as provided by the Forand Bill.

The medical profession is in the limelight and on the spot. It must provide a prepayment program to care for the admittedly unfortunate victims of a social system which collapsed under their feet. It must make this program work. If this is not done, we have no logical objection to a measure like the Forand Bill. Nothing would be gained by opposing one measure if we did not have a substitute for it—especially if that measure offers medical and surgical relief to 15 millions of voters. The medical profession could limit its plan to a comparatively few (4) millions. If action is left to Congress, there is no indication that limits will be placed upon numbers or qualifications of the prospective "beneficiaries."

During the past years, the nation has had an object lesson of what happened when a token restriction is placed upon the benefits offered. The veteran is asked to sign a statement as to whether he is able to pay before being admitted into the Veterans Hospital. Nobody inspects these statements, and a recent report showed that among the 190,000 patients in the Veterans Administration Hospitals, only 39,000 are for service-connected disabilities.

BLUE SHIELD ADMINISTRATION

Quite generally throughout the nation, Blue Shield Plans and their Boards of Directors are fairly well dominated by the medical profession. In fact, that is one of the fundamental attributes constituting the Blue Shield program: the plan must be endorsed and its administration directed by representatives of the medical profession. An occurrence reported in the December number of *Connecticut Medicine* (page 833) in the report of one of CSMS Council meetings, is a resolution from the CIO annual convention in 1958, reading as follows:

"This convention goes on record as requesting that Connecticut Medical Service voluntarily change its by-laws to provide a new set-up in its Board of Directors, so that 50 per cent of its membership shall be from those community interests which are essentially the consumers of the services offered by the CMS; and to provide further recognized spokesmen for organized labor.

"If no action is taken by the Connecticut Service Board of Directors to grant this request by January 1, 1959, legislation be sought in the next session of the General Assembly to require that any organization operating in the State of Connecticut which offers insurance against hospital care or medical expenses on a so-called non-profit basis shall be required so to constitute its Board of Directors that at least one-half its members represent consumers of the services which are offered; and further provided that, of the consumer representatives, at least one-half shall be recognized spokesmen for organized labor in Connecticut."

This could be the beginning of an organized effort to take over the management of the medically sponsored Blue Shield program.

TRIBUTE TO WILLING WORKERS

We have received several communications indicating that some of our members are critical of the action taken by the AMA at Minneapolis, due to the assumption that possibly most "senior citizens" would be included in a service medical care plan with reduced rates and payments. We thoroughly disagree with these implications and criticisms.

The six Michigan delegates represented the Michigan State Medical Society as delegates to the AMA House of Delegates. During that convention, practically their whole time was devoted to sessions, reference committees and discussions with other informed persons or groups.

Much of the activity of the Council on Medical Service for the past two years has been concerned with care of the "senior citizens," especially those on old age assistance, inadequate pensions, reduced incomes, and those who are victims of inflation. R. L. Novy is a member of this Council which was holding frequent meetings, rewriting and changing resolutions in conformity with almost hourly discussions with the AMA trustees. He was never free for relaxation. The AMA, by its action in Minneapolis, has made a complete reversal of concept in advocating care of the service type—a unanimous action.

William A. Hyland, chairman of the Michigan delegation, also served as chairman of a reference committee and was subject to on-the-spot conferences and special meetings, as well as being spokesman for Michigan. John A. DeTar was chairman of this reference committee considering Old Age Care.

The delegates from Michigan were sent without specific instructions on any action other than to use their best judgment for the benefit of the medical profession, of the American Medical Association, and for the people of the United States. The solution of medical and socio-economic problems rising from the rapidly expanding old age population turned out to be of vast importance.

This problem could not wait to be sent back to each state for instruction; it had to be resolved immediately.

The delegates remembered that they were representing and were part of the governing body of the medical profession, organized through the AMA, and that their first duty was to serve the American people. A delegate with instructions to vote in a certain way might just as well not attend the AMA House of Delegates Session, and an organization subject to such demands might just as well not meet but take a mail vote; just as much would be accomplished. A delegate must be allowed to use his judgment in controversial matters or in matters setting policies, and our Michigan delegates qualified in this respect.

They performed their duties as they saw them and are worthy of the utmost respect because of their action. Again they may have staved off federal socialized medicine through a Forand Bill or a Murray-Dingell Bill or some such federal legislation.

MEDICINE AND BLUE SHIELD ACCEPT THE CHALLENGE

Seldom, if ever before, has medicine earned such a "friendly press" as greeted the action of the AMA House of Delegates at its Minneapolis meeting in December, when it resolved that "the AMA, the constituent and component medical societies, *as well as physicians everywhere,* expedite the development of an effective voluntary health insurance or prepayment program for the group over sixty-five with modest resources or low family income." . . .

To make such a program possible, the AMA Delegates realistically urged "that physicians agree to accept a level of compensation for medical services rendered to this group which will permit the development of such insurance and prepayment plans at a reduced premium rate."

Thus, American medicine has forthrightly accepted the challenge of the Forand Bill and acknowledged the special needs of our older citizens, many of whom are getting along on extremely modest retirement incomes.

The national association of Blue Shield Plans has responded promptly to the AMA action. Its staff, under the direction of a special committee, is developing a pattern of coverage, payments and subscription rates that can be used by local Blue Shield Plans in developing their local programs for senior citizens.

Each of us will soon have an opportunity to take part in this great professional enterprise. For it will be up to us, as individual physicians, to make good this AMA pledge. We will be called on for a new and crucial demonstration of the ability of our free profession to meet its collective responsibilities by voluntary action in a free society.

INDUSTRY'S SKILL AND MANKIND'S BENEFIT

(Continued from Page 234)

week, indicates that your society has gained considerably from looking back at "yesterday's hopeless." You are the men who will continue to make the health of our nation progress, through your futuristic thinking.

We all can speak of "today's cured" only because of the co-operation between physicians, pharmacists and manufacturers and the healthy respect we have for one another's functions and responsibilities. Each of us has a specific role; however, the goals of each group are the same—the health and well-being of mankind.

I believe that by increasing an exchange of ideas between each of our groups the result will be greater understanding of problems and more frequent solutions to them.

It is with sincere hope and faith, that I predict a president of the pharmaceutical manufacturers association will stand before the members of your society fifty years from now and refer to those diseases which appear hopeless today, as the "cured" of his day.

We all work and pray that this may be realized much sooner.

"Today's professional freedom to be a private practitioner of medicine instead of a slave of government is due solely to Blue Shield, the physician's answer to socialized medicine. . . . Since we have accepted the insurance principle, many patients who previously would be non-paying patients have had their bills at least partially paid. I am rather intolerant of the physician who is not a participating physician in Blue Shield, who in the defense of his attitude, says with a loud voice, 'nobody is going to tell me what to charge.' "—Elmer Hess, M.D., past president, American Medical Association, Seattle, November, 1956.

Michigan Clinical Institute

MEETINGS OF ANCILLARY GROUPS

TUESDAY, MARCH 10, 1959

The Michigan Chapter of the American College of Surgeons annual meeting will be held in the English Room of the Sheraton-Cadillac Hotel, Detroit, beginning at 9:00 a.m.

Clifford D. Benson, M.D., Detroit, is chairman of the Program Committee for 1959. The Committee plans to continue the policy of having a practical program consisting of short papers on a wide variety of subjects. All members of the Chapter, including those in the subspecialties, are invited to submit papers for this meeting. Each speaker will be limited to ten minutes. Whenever possible, it is requested that the speaker provide one formal discussant.

Michigan Diabetes Association will hold a board meeting at 4:00 p.m. in Parlor H. The Association will meet for reception and dinner at 6:30 p.m. in the Sheraton Room. A panel presentation will follow the dinner.

Michigan Branch, American Academy of Pediatrics will hold a dinner-meeting at 6:00 p.m. in the English Room.

WEDNESDAY, MARCH 11, 1959

Michigan Committee on Trauma, American College of Surgeons, luncheon-meeting at 12:00 noon, Sheraton Room, Sheraton-Cadillac Hotel, Detroit. Anyone who is interested is invited to attend.

Cancer Control Luncheon honoring Wendell G. Scott, M.D., of St. Louis, Missouri, is scheduled for 12:30 p.m. in the Pan American Room, Sheraton-Cadillac Hotel.

Symposium on the Depressions, 8:00 p.m., Grand Ballroom.

Moderator:
RAYMOND W. WAGGONER, M.D., Ann Arbor
Director, The Neuropsychiatric Institute, University Hospital

Panelists:
JACK R. EWALT, M.D., Boston, Massachusetts
Superintendent of the Massachusetts Mental Health Center; Professor of Psychiatry, Harvard Medical School

CAPTAIN GEORGE N. RAINES, M.C., Washington, D. C.
Chief of Psychiatry in Navy and Chairman of Department of Psychiatry, Georgetown University Medical School

"Depression as an Antecedent to Medical Disease"

ARTHUR H. SCHMALE, M.D., Rochester, New York
Assistant Professor of Medicine and Psychiatry, University of Rochester School of Medicine and Dentistry; Markle Scholar in Medicine and Psychiatry.

The significant tendency of the depressive reaction to manifest itself by some type of somatic symptoms, often without apparent evidence of the depression itself, makes this topic one of especial importance to every clinician. Recently depression as a conditioning or precipitating factor for the development of organic disease has been given serious consideration. At the same time, depression as a serious complication of physical disease must always be given due consideration.

THURSDAY, MARCH 12, 1959

Michigan Heart Association, dinner-meeting of Members in the Book-Casino, Sheraton-Cadillac Hotel.

Michigan Proctologic Society will meet in Parlor H of the Sheraton-Cadillac Hotel.

Program

P.M.

5:00 "Reactions of the Gastric Mucosa to Various Stimulii"—a moving picture prepared by Stewart Wolf, M.D., Oklahoma City

5:30 "The Physiology of Digestion" by Ralph Cooper, M.D., Assistant Clinical Professor of Medicine, Wayne State University College of Medicine

6:00 Dinner-meeting in the Sheraton Room

Testimonial Luncheon honoring Pharmaceutical Lecturer Mr. Harry J. Loynd, Detroit, President of Parke, Davis & Co., 12:30 p.m. in the Pan American Room of the Sheraton-Cadillac Hotel (by invitation). The Michigan State Pharmaceutical Association is sponsor.

Awards Luncheon honoring Michigan Doctors of Medicine who are presidents of national medical and health organizations, and to recognize the Annual Awardees of the Michigan State Medical Society, 12:30 p.m., English Room, Sheraton-Cadillac Hotel. To receive awards are: J. Edward Berk, M.D., Detroit, President of American Gastroscopic Society; C. Leslie Mitchell, M.D., Detroit, President of American Orthopedic Association; Herman K. B. Pinkus, M.D., Monroe, President of the Society for Investigative Dermatology; John W. Rebuck, M.D., Detroit, President of the International Reticulo-Endothelial Society; John M. Wellman, M.D., Lansing, President of Frederick A. Coller Surgical Society; W. H. Steffensen, M.D., Grand Rapids, President of the American Society of Plastic and Reconstructive Surgery, and many others.

Milton A. Darling, M.D., and G. Thomas McKean, M.D., of Detroit, are co-chairmen of the Awards Luncheon.

Michigan Epilepsy Center and Association will hold a luncheon-meeting at 12:30 p.m. in the Sheraton Room of the Sheraton-Cadillac Hotel.

Conference for Residents, Interns and Senior Medical Students, 2:30 p.m. to 6:45 p.m. in the English Room of the Sheraton-Cadillac Hotel.

FRIDAY, MARCH 13, 1959

Michigan Heart Association Board of Trustees will meet at 3:00 p.m. in the Sheraton Room, Sheraton-Cadillac Hotel.

* * *

Wayne State University College of Medicine Alumni Association will maintain an Alumni headquarters suite in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. All alumni, their guests, and friends of Wayne State are cordially invited to visit the headquarters.

PROGRAM OF COLOR MOTION PICTURES

The American Cyanamid Company will again present a motion picture program in the Normandie Room of the Sheraton-Cadillac Hotel.

Program

TUESDAY, MARCH 10—1:00 p.m. to 5:00 p.m.

1:00 Cholecystectomy for Acute Cholecystitis with Cholelithiasis
1:26 Choledochojejunostomy for Restoration of Biliary Drainage
1:58 Emergency Surgery of the Acutely Injured
2:32 Surgical Treatment of Prolapse of the Rectum
3:05 Complicated Appendicitis
3:34 Surgical Problems in Ulcerative Colitis
4:02 Primary, Total, and Near Total Colectomy for Cancer of the Colon
4:33 Adenomatous Polyps of the Colon and Rectum

WEDNESDAY, MARCH 11—9:30 a.m. to 5:00 p.m.

9:30 Small Bowel Resection for Post-Radiation Obstruction
9:57 Total Gastrectomy Using the Abdomino-Thoracic Approach
10:38 Safe and Conservative Treatment of Lesions of the Female Breast
11:12 The Combined Abdominal and Right Thoracic Approach to Carcinoma of the Mid-Esophagus
11:39 Surgilope SP
11:54 The Operative Treatment of Chronic Stasis Ulcers
12:22 Treatment of Thoracic Injuries
12:55 Coarctation of the Aorta
1:26 Cardiac Arrest
1:55 The Story of Renal Calculi
2:29 Technics of Thyroid Surgery
3:00 Gastric Ulcer or Carcinoma, Recognition and Treatment
3:31 Precautions in the Resection of the Colon for Carcinoma
4:02 Lesions of the Fallopian Tube
4:35 Hysterectomy—Three-quarter intrafascial technique

THURSDAY, MARCH 12—9:30 a.m. to 5:00 p.m.

9:30 Pneumonectomy for Carcinoma
10:07 Valvulotomy for Valvular Pulmonic Stenosis
10:36 Relief of Obstruction of Superior Vena Cava by Venous Autografts
11:09 Indications and Technique of Right Hepatectomy
11:45 Gallstone Ileus
12:01 Cholecystectomy and Operative Cholangiography
12:35 Transabdominal Adrenalectomy for Endocrine Disease
1:03 Surgical Anatomy of the Femoral Triangle
1:33 Surgical Treatment of Direct Hernia
2:06 Aneurysms of the Abdominal Aorta
2:34 Exploration of Pancreas for Islet Cell Tumor
3:04 Technical Considerations in Hemipelvectomy
3:32 Surgical Techniques of the Several Types of Skin Graft
4:07 Surgilope SP
4:22 Vaginal Hysterectomy

FRIDAY, MARCH 13—9:30 a.m. to 12:00 noon

9:30 The Diabetic Foot Transmetatarsal Amputation with Delayed Primary Closure
9:55 Early Management of the Severely Burned Patient
10:27 Surgilope SP
10:42 Common Duct Stones
11:12 Surgery of the Adrenal Glands
11:33 The Surgical Treatment of Varicose Veins

EDUCATIONAL SEMINAR

The second annual Educational Seminar sponsored by Michigan State Medical Assistants Society and the University of Michigan Extension Service will be presented Wednesday, March 11, 1959, in the Fort Shelby Hotel, Detroit.

Program

Registration—9 A.M.

Morning Session—10 A.M.

General Assembly
Welcome—Donna Hislop, President, MSMAS

Introductions—Marguerite Woolhouse, Seminar Chairman

"Women at Work"—Lois W. Hoffman, Research Associate, Research Center for Group Dynamics, the University of Michigan

Afternoon Session—1:30 P.M.

Symposium—"Having Patience with Patients"

Moderator—Robert Moulton, Instructor in Psychology and Psychologist with Counseling Division, The University of Michigan

Participants—Mrs. Ruthjane Block, Lansing
Mrs. Vivian Branyan, Grand Rapids
Mrs. Carolyn Henick, Lansing
Mrs. Doris Miller, Williamston

"Psychological Aspects of Physical Illness"—Stanley Segal, Assistant Professor of Psychology and U. S. Public Health Service Grant, and Assistant Chief Counseling Division, Bureau of Psychological Services, The University of Michigan.

MSMAS OFFICERS

President—Miss Donna Hislop, 878 Second St., Muskegon

President-Elect—Mrs. Reta Shedd, 308½ S. Superior, Albion

Recording Secretary—Mrs. Dorothy V. Alison, 87 W. Pearl, Coldwater

Corresponding Secretary—Miss Catherine LaPres, 706 Hackley Bank Bldg., Muskegon

Treasurer—Miss Cecile Rutan, Hanover

Chairman of Seminar—Mrs. Marguerite Woolhouse, 320 Townsend St., Lansing

Visit the Exhibits
at the
MCI Institute

OPERATING ROOM NURSES INSTITUTE

March 11 and 12, 1959

Sheraton-Cadillac Hotel, Detroit, Michigan

Sponsored by
Operating Room Nurses Conference Group
of the
Michigan State Nurses Association
Held jointly with the Michigan Clinical Institute

(All professional registered nurses are invited)

Program

WEDNESDAY, MARCH 11, 1959

A.M.

8:00 **Registration Desk Open** *Mezzanine Floor*
9:00 **Greetings and Introductions** *English Room*
9:15 **"Problems in Pediatric Surgery"**
JACK HERTZLER, M.D., Children's Hospital of Michigan, Detroit
"Pediatric Anesthesia"
SHIRLEY AUSTIN, M.D., Children's Hospital of Michigan, Detroit

11:30 **Luncheon Recess**

VIEW EXHIBITS

P.M. *English Room*
2:15 **"Juvenile Amputation—Surgery and Rehabilitation"**
JAMES A. MACDONELL, M.D., Grand Rapids
3:30 **"Plastic Surgery Problems"**
HAROLD W. JAFFE, M.D., Detroit
4:30 **"Meeting Your Responsibilities"**
MRS. ANNE ZIMMERMAN, R.N., Executive Secretary, Illinois Nurses Association, Chicago, Illinois

THURSDAY, MARCH 12, 1959

A.M.

8:00 **Registration Desk Open** *Mezzanine Floor*
9:00 *English Room*
"Housekeeping in the Operating Room"
EMILY DEMING, Executive Housekeeper, Butterworth Hospital, Grand Rapids
"Inside Construction of the Operating Room"
ADOLPH H. ROESSLING, Architect, Smith, Hinchman and Gryls, Detroit

11:30 **Luncheon Recess**

VIEW EXHIBITS

P.M.
1:30 *Harper Hospital*
"How Is Nursing Education Preparing Students for Nursing Service Positions in Operating Rooms?"
Moderator:
MRS. HARRIET BELL, R.N., Assistant Director of Nursing, Operating Room, Harper Hospital, Detroit
Panel Members:
MILDRED QUACKENBUSH, Assistant Professor, University of Michigan School of Nursing, Ann Arbor
MRS. ELEANOR PETERSON, R.N., Instructor, Ford Hospital, Detroit
ELEANOR TOURTILLOTT, R.N., Coordinator for Education of Nursing, Henry Ford Community College, Dearborn
MARY WEINSCHREIDER, R.N., Director of Nursing, McLaren Hospital, Flint

ATTEND YOUR
MICHIGAN
CLINICAL
INSTITUTE
P.G. Credits — — including A.A.G.P.
— — — — — —
REFRESHER COURSE
March 10-11-12-13

VOTE

APRIL 6, 1959

The results of the Spring Election 1959 mean much to the people: *They mean more to the professional man.*

By their votes, the citizens of Michigan will go far toward directing the *policies* of education in our public schools and in Michigan's three major State Universities.

Two vacancies on the University of Michigan Board of Regents and two on the Michigan State University governing board (State Board of Agriculture) will be filled. In addition, all six members of the newly-created Wayne State University Board of Governors will be chosen.

Doctor, make yourself heard!

VOTE

APRIL 6, 1959

SCIENTIFIC CONTRIBUTIONS OF THE MCI TECHNICAL EXHIBIT

The technical exhibit is an essential part of the educational process of Michigan Clinical Institute. A considerable proportion of medical research is sponsored by many institutions and manufacturers whose displays are part of our exhibit. Year in and year out, they make substantial contributions to progress in Medicine. This year, they offer many new ideas in therapy and techniques.

Doctors of medicine are invited and urged to inspect the exhibits, to examine products and services, and to question the exhibitors on "what's new for me to use?" Discuss with these well-trained and informed exhibitors the uses of the products of their laboratories. Sample their professional knowledge, which is an adjunct to the scientific talks and other presentations of the Michigan Clinical Institute, all congregated in one spot for you, Doctor, so that you may serve the public better.

MCI Technical Exhibits

(Listed Alphabetically)

Abbott Laboratories
North Chicago, Ill. **Booth No. 33**

Exhibit will feature the Abbott Laboratories Antibiotic Triad—three products which together provide control of all coccal infections: Erythrocin® Stearate, Compocillin®-VK and Spontin®. Also shown will be Abbott's unique new "metered release dose form" products, Tral Gradumets® and Desoxyn Gradumets®, plus a selection of other Abbott specialties.

A. S. Aloe Company
St. Louis, Mo. **Booth No. 62**

The Bouffard brothers, Tom and Wally, will be on hand to greet you once again. Why not drop by and see the latest surgical supplies and equipment?

American Cyanamid Company
Danbury, Conn. **Booth No. 49**

American Cyanamid Company, Surgical Products Division, 1 Casper Street, Danbury, Conn.—Manufacturers of DAVIS & GECK Sutures and other surgical products; VIM HYPODERMIC NEEDLES, SYRINGES and SPECIALTIES. Featuring SURGILAR and SURGILOPE SP—New non-glass suture packagings; the new ELLIPTRON Atraumatic Needle, Surgaire,-Sterile Deodorant Spray Ointment and Topasil, a silicone skin protectant; VIM Biegeleisen Biopsy Needles, and CURON elastic foam bandage, and VIM SURGICAL LANCET.

American Ferment Company, Inc.
New York, New York **Booth No. 50**

Have you tried TOD'L, the sudsing, emollient, antibacterial skin cleanser for the treatment and prevention of various skin affections? Also featured: CARDIOID AND BILE SALTS TABLETS as a logical complement in modern methods of therapy, FALGOS buffered analgesic, ALCAROID ANTACID, and SUPLIGOL for non-surgical biliary problems.

American Hospital Supply Corpn.
Evanston, Illinois **Booth No. 38**

Exhibiting: The new *Sensitex* Surgical Glove—minimum cost, maximum sensitivity created by the inverse-dip process; a dramatic new approach to surgical drapes for one time use; aerosol sprays for routine surgical application; anti-infection shoe covers for use in the presence of explosive gases; new items of general interest to surgical personnel.

Atlas Pharmaceutical Laboratories, Inc.
Detroit, Michigan **Booth No. 27**

Ayerst Laboratories
Chicago, Ill. **Booth No. 54**

"MUREL," a new potent antispasmodic, will be featured at the Ayerst booth. "MUREL" provides unique three-way spasmolytic action in one molecule: *anticholenergic,* to inhibit transfer of parasympathetic stimuli to effector cells of the smooth muscle; *musculotropic,* to act directly on smooth muscle; *ganglionoplegic,* to exert a definite but transient ganglion block.

Baker Laboratories, Inc.
Cleveland, Ohio **Booth No. 10**

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

Coca-Cola Company
Atlanta, Ga. **Booth Nos. 6-7**

Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company, Detroit, Michigan, and The Coca-Cola Company.

Cunningham Drug Stores, Inc.
Detroit, Mich. **Booth No. 34**

Pharmacists from Cunningham's and Kinsel's will staff a display featuring the many new prescription pharmaceuticals available at Cunningham's and Kinsel's Prescription Departments.

Our services available to physicians will be on display, such as prescription blanks and product information.

Desitin Chemical Company
Providence, R. I. **Booth No. 16**

DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abrasions, etc.

DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc.

DESITIN SUPPOSITORIES and RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures.

DESITIN BABY LOTION: Protective, antiseptic.

DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.

DESITIN COSMETIC and NURSERY SOAP: Supermild.

Detroit X-Ray Sales Company
Detroit, Mich. **Booths Nos. 65-66**

We wish to extend a cordial invitation to all members of the Michigan Clinical Institute to visit our booth, and view the completely new line of X-Ray Equipment—designed in the contemporary manner by the Mattern X-Ray Division of Land Air, Inc. We will exhibit both Mobile and Tilt Table Units available in power ranges from 30 MA to 200 MA.

Doho Chemical Corporation
New York, N. Y. **Booth No. 56**

DOHO CHEMICAL CORPORATION is pleased to exhibit:

TURGASEPT: Ionic deodorizer aerosol spray, neutralizes odor immediately without floral masking or substituting a new odor. It is highly bacteri*cidal* and fungi*cidal* and was primarily formulated for use in hospitals, nursing homes, and animal clinics; however, can be used in any type malodor condition;

AURALGAN: Otitis Media and removal of Cerumen;

OTOSMOSAN: Fungicidal and Bactericidal in the suppurative and aural dermatomycotic ears;

RHINALGAN: Nasal decongestant free from systemic or circulatory effect;

LARYLGAN: Throat spray and gargle for infectious and non-infectious sore throat involvements;

RECTALGAN: For relief of pain and discomfiture in hemorrhoids pruritus and perineal suturing;

DERMOPLAST: An Aerosol Spray for surface pain, burns and abrasions; Obs. & Gyn. use.

Eaton Laboratories, Inc.
Norwich, N. Y. **Booth No. 45**

Furoxone® (brand of furazolidone) Liquid and Tablets solve acute diarrheal disease problems, swiftly relieve symptoms, rapidly destroy bacterial pathogens (bactericidal rather than bacteriostatic), succeed where others fail against the enteric "problem pathogens"—increasingly prevalent, refractory strains of Staphylococcus, Escherichia, Salmonella and Shigella without creating new problems.

Ferndale Surgical, Inc., Division
J. F. Hartz Company
Ferndale, Mich. **Booth No. 55**

New surgical and diagnostic instruments. Emphasis on disposable products. New drug products, prepacked, prelabeled, precounted. Special formulas: ask for quotations. Pick up 1959 edition of DOMUS MEDICA (drug and supply catalog for doctors' offices), and register to receive our monthly FERNDALE FLASH.

C. A. Fisher & Sons
Toledo, Ohio **Booth No. 11**

Your ZIMMER distributor, C. A. Fisher & Sons, extends a cordial invitation to visit their booth where the latest in Fracture Equipment and Appliances will be on exhibit. Of special interest is the new FAS-TRAC Bandage for skin traction.

E. Fougera & Company, Inc.
Hicksville, N. Y. **Booth No. 28**

You are invited to visit the Fougera Exhibit and discuss our products with medical service representatives. For your convenience, all literature and sample supplies will be sent to your office.

Fuller Pharmaceutical Company
Minneapolis, Minn. **Booth No. 9**

Tucks, soft cotton flannel pads medicated with dilute witch hazel and glycerin, are featured at the Fuller exhibit. You'll find Tucks effective and convenient in the management of pruritus ani, diaper rash, anorectal surgical wounds, post-partum hemorrhoids, and many other conditions frequently encountered in general practice. A supply for family use will gladly be sent on request.

Geigy Chemical Corporation
Yonkers, N. Y. **Booth No. 74**

GEIGY PHARMACEUTICALS cordially invites members and guests of the association to visit its technical display.

Information on products valuable in the therapy of rheumatic, metabolic, dermatologic and cardio-vascular diseases will be presented by personnel in attendance.

Gray Audograph Company
Detroit, Mich. **Booth No. 5**

Exhibit will feature Key Noter Gray Audograph.

Hack Shoe Company
Detroit, Michigan **Booth No. 3**

Forty-three years of service to the profession is marked this month by these devotees of proper shoes, correctly fitted.

Regular shoes as well as supportive types will be exhibited, along with those fitted ON SPECIFIC PRESCRIPTION ONLY.

RIPPLE® Sole shoes will round out the Hack Shoe Company exhibit.

Health Insurance Council
New York, N. Y. **Booth No. 15**

Our exhibit is designed to provide general information on health insurance as underwritten by insurance companies. In addition, it also makes available information on uniform claim forms for use by doctors and hospitals in support of health insurance claims.

G. A. Ingram Company
Detroit, Mich. **Booth Nos. 67-68**

THE G. A. INGRAM COMPANY will display new instruments plus diagnostic equipment for office procedure and a complete line of physiotherapy equipment.

A. Kuhlman & Company
Detroit, Mich. **Booth No. 32**

In addition to many new items in the surgical and diagnostic instrument field, we are showing the new Birtcher No. 300 Electrocardiograph. This two speed ECG has many new features never before available in a direct writing Electrocardiograph.

Lederle Laboratories
Pearl River, N. Y. **Booth No. 35**

Eli Lilly and Company
Indianapolis, Ind. **Booth Nos. 63-64**

You are cordially invited to visit the Lilly exhibit located in Booth Nos. 63 and 64. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company
Philadelphia, Pa. **Booth No. 70**

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

P. Lorillard Company
New York, N. Y. **Booth No. 1**

P. Lorillard Company invites you to visit the Kent Cigarette Exhibit.

We are presenting the Story of Kent Cigarettes with the exclusive, new Micronite filter, which gives you rich taste with less tars and nicotine in the mainstream smoke than any other leading filter brand.

A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

Maico Hearing Service
Detroit, Mich. **Booth No. 69**

The new Maico Hearing Aid weighing less than one-half ounce is so small that the entire unit consisting of transmitter, microphone, receiver, battery and ear mold is worn in the ear. A complete line of instruments to take care of cases from the borderline to the profoundly deaf.

Ninety per cent of all precision hearing test instruments used in America by ear physicians are Maico.

Marion Laboratories, Inc.
Kansas City, Mo. **Booth No. 59**

ANASORB—a hematinic that includes Sorbit, a drug which aids in the absorption of iron and B_{12}; DUOTRATE, DUOTRATE 45, and DUOTRATE with phenobarbital—Marion's long-acting coronary vasodilators containing pentaerythritol tetranitrate and employing a new reliable release principal are displayed, as well as OS-CAL, OS-VIM, OS-feo-CAL, OS-feo-

VIM, and OS-QUIN—prenatal products utilizing oyster shell calcium.
Each member and guest of the Michigan Clinical Institute is invited to visit the Marion booth, receive a friendly smile, a sincere "Welcome Doctor," and have a pleasant and informative discussion of our products with the Marion Men.

Mead Johnson & Company
Evansville, Ind. **Booth Nos. 71-72**

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company
Tulsa, Okla. **Booth No. 31**

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.
The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Protective Company
Fort Wayne, Ind. **Booth No. 22**

The Medical Protective Company, originator of Professional Protection Exclusively, now in its sixtieth year, provides unexcelled coverage in ANY claim or suit for damages based on professional services rendered or which should have been rendered, plus unparalleled experience from the successful handling of some 78,000 claims and suits in the professional liability field.

Merck Sharp & Dohme
Philadelphia 1, Pa. **Booth No. 25**

A new and very promising adrenocortical steroid is featured at the Merck Sharp & Dohme booth. "DECADRON" dexamethasone possesses all the basic actions and effects of other glucocorticoids but in different degree. Its anti-inflammatory activity is more potent on a weight basis than any other known glucocorticoid. Electrolyte imbalance is not ordinarily a therapeutic problem. Neither abnormal salt and water retention nor potassium excretion are discernible in most patients receiving therapeutic dosages. In other respects, also, "DECADRON" is generally well tolerated.
"DIURIL"—a diuretic compound that possesses favorable biologic properties common to both the mercurial preparations and the carbonic anhydrase inhibitors is also of interest. "DIURIL" acts essentially without toxic effects or other disadvantages. Following a single oral dose, "DIURIL" produces effects within two hours which last for 6 to 12 hours. It is repeatedly effective when administered continuously once or twice daily for a long period.
Technically trained personnel will be present to discuss these and other subjects of clinical interest.

Meyer and Company
St. Clair Shores, Mich. **Booth No. 48**

New concepts relating to the etiology of arteriosclerosis and atherosclerosis according to the research work done by Prof. Hans Selye, University of Montreal, Institute of Experimental Medicine and Surgery, have attracted the attention of Medicine toward the application of Magnesium in the prevention of these diseases. ATHEMOL and the latest clinical data on this product in therapy of these two diseases will be brought up at the exhibit of Meyer and Company.

Michigan Medical Service
Detroit, Mich. **Booth No. 4**

You are cordially invited to visit the Michigan Medical Service booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Milex Products
Oak Park, Mich. **Booth No. 14**

Milex Company offers the physician a unique line of Gynecic Specialties among which are Milex Folding Pessaries, Crescent Diaphragm, Oligospermia Cups, Nutrient Sperm Douche, Basal Thermometers, Doyle Spoon (for proconception), Cancer Detection Instrument Unit, Cold Conization Knife for Subsequent Biopsy of the Cervix and a "Doctor's Marital Guide for Patients" (regular and rhythm editions).

Miller Surgical Company
Chicago, Ill. **Booth No. 47**

MILLER SURGICAL COMPANY, Chicago, Ill.: See the Miller Electro-Surgical Units and Accessories such as Snares, Suction-Coagulation attachments, Grasping Forceps, etc. Also a complete line of Diagnostic Equipment consisting of Illuminated Otoscope, Ophthalmoscope, Eyespud with Magnet, Transillumination Lamps, Mirror Headlite, Vaginal Speculum with Smoke Ejector and Gorsch Operating Scopes and stainless steel Proctoscopes, all sizes, with magnification.

C. V. Mosby Company
St. Louis 3, Mo. **Booth No. 61**

New knowledge, new ideas, new research and technique—all are waiting for you in the newest Mosby books for 1958 and 1959. Come in. Look over these books at your leisure and convenience. If you wish his assistance, our experienced representative will be happy to discuss any book with you.

MSMS Life, Health and Accident Insurance Program
Lansing, Michigan **Booth No. 58**

You are cordially invited to stop at Booth No. 58 and discuss the MSMS Life, Health and Accident Insurance Program.
Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

V. Mueller and Company
Chicago, Ill. **Booth No. 40**

V. Mueller & Company (Chicago) features an interesting display of special and standard instruments for surgery—including the superb new V. Mueller Signature line of forceps. Some of the more important newer aids for OR personnel are included, among them the popular Kidd Instrument Rack. Your Michigan V. Mueller Representatives, Mr. Bob Eggen, and Mr. Jerry White, will welcome your visits and inquiries.

Parke, Davis & Company
Detroit, Mich. **Booth Nos. 42-43**

Medical Service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pet Milk Company
St. Louis, Mo. **Booth No. 44**

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Pfizer Laboratories
Brooklyn, N. Y. **Booth No. 39**

Visit the Pfizer display which features Cosa-Tetracyn, Cosa-Terramycin and Cosa-Signemycin, Pfizer's glucosamine potentiated antibiotics. The Pfizer Representative will be pleased to provide you with information on Diabinese—a new oral hypoglycemic agent, and Daricon—a new anticholinergic compound possessing a high order of therapeutic effectiveness and prolonged duration of action.

Purdue Frederick Company
New York, N. Y. **Booth No. 46**

The Purdue Frederick Company will present:
CERUMENEX: Cerumenolytic for the quick removal of excessive cerumen. Contains Cerapon, a new surfactant, with propylene glycol and chlorbutanol.
SENOKOT: Neuroperiastaltic constipation corrective containing the total senna glycosides.
SENOKAP: Stool softener, combining the action of dioctyl sodium sulfosuccinate with that of Senokot.
SENOKOT WITH PSYLLIUM: Combines the bulk effect of psyllium with Senokot.
SENOBILE: Combines the bile salt effect with Senokot.
PROBILAGOL: Cholecystokinetic containing d-glucitol and homatropine methylbromide. For biliary disease therapy.

Randolph Surgical Supply Company
Detroit, Mich. **Booth Nos. 12-13**

Randolph Surgical Supply Company will have some unusual new items on display that should be of interest. Our booth will be staffed with competent personnel to answer any questions regarding the many manufacturers we represent.

R. J. Reynolds Tobacco Company
Winston-Salem, N. C. **Booth No. 26**

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company, Inc.
Richmond, Va. **Booth No. 23**

The new antihistaminic cough preparation DIMETANE EXPECTORANT combining Dimetane, glyceryl guaicolate and nasal decongestants is featured at the Robins exhibit. DIMETANE EXPECTORANT-DC (with dihydrocodeinone) is the companion preparation recommended when more cough suppressant action is indicated. The antirheumatic PABALATE formulations are also shown as well as ROBAXIN and the analgesics in the PHENAPHEN "family."

Wm. H. Rorer, Inc.
Philadelphia, Pa. **Booth No. 36**

MAALOX, the non-constipating, pleasant tasting antacid and the new double strength Tablet Maalox No. 2 are featured. Other product highlights are FERMALOX, the new buffered iron tablet, FERMATIN, a dynamic new tonic in a capsule for under-par patients and ASCRIPTIN, a rapid acting professional salicylate. Our representatives will be on hand to answer questions about these and other Rorer products.

Ross Laboratories, Inc.
Columbus, Ohio **Booth No. 29**

As adjunct to the physician's oral reassurance of anxious new parents the ROSS DEVELOPMENTAL Series offers visual materials (INDIVIDUAL CASE RECORDS, BEHAVIORAL DEVELOPMENT FOLDERS, EMOTIONAL DEVELOPMENT BOOKLETS). Current concepts stress the development of the infant as a whole being. Physiologic infant feeding may be discussed with your SIMILAC Representative.

The Rupp and Bowman Company
Highland Park, Mich. **Booth No. 51**

Once again the Rupp and Bowman Company welcomes the many doctors to visit our booth. Our representatives will be on hand to answer questions and show you new items.

Sanborn Company
Cambridge, Mass. **Booth No. 19**

New ELECTROCARDIOGRAPHS of advanced design and function, as well as latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 19. Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.
Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

Sandoz Pharmaceuticals
Hanover, N. J. **Booth No. 17**

Sandoz Pharmaceuticals cordially invites you to visit our display at Booth No. 17.
BELLERGAL—Space Tabs assures around the clock control of functional complaints (example—menopause symptoms) in the periphery where they originate.
FIORINAL—a new approach to therapy of tension headache and other head pain due to sinusitis and myalgia.
CAFERGOT PB—the most effective oral medication for the relief of migraine headache with G.I. disturbance accompanied by tension.
Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company
Philadelphia, Pa. **Booth No. 2**

Harold Rozema will again be on hand at the Saunders booth. New titles of special interest include: Current Therapy 1959; De Palma: Management of Fractures and Dislocations; Wohl: Long-Term Illness; Roberts: Difficult Diagnosis; Duncan: Diseases of Metabolism; de Takats: Vascular Surgery; Mc Laughlin: Trauma; and the ever-new Medical, Surgical and Pediatric Clinics of North America.

Schering Corporation
Bloomfield, N. J. **Booth No. 20**

Schering welcomes the doctors of Michigan. We cordially invite you to visit the Schering booth where representatives will be on hand to discuss with you the most recent advances in tranquilizer, antihistaminic and corticosteroid therapy. Products such as Schering's TRILAFON, POLARAMINE and DERONIL will be featured.

Julius Schmid, Inc.
New York, N. Y. **Booth No. 8**

An interesting and informative exhibit featuring IMMOLIN Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (Fourex) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

Institute of Public Information
New York, N. Y. **Booth No. 53**

CONGENERS: CHEMISTRY-PHARMACOLOGY
Congeners (fusel oil, aldehydes, acids, etc.) are compounds found in all alcoholic beverages that provide the taste, bouquet and color. In high concentrations, however, certain congeners may produce toxic effects. This exhibit presents the results of quantitative chemical analyses of congeners found in six leading types of distilled spirits along with correlated acute oral toxicity studies obtained on rats. (Pertinent literature will be available.)

G. D. Searle & Company
Chicago, Ill. **Booth No. 21**

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.
Featured will be Dartal, the new tranquilizing agent which controls activities associated with anxiety states and other neuroses; Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, nonmercurial oral diuretic.
Also featured will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine and Pro-Banthine with Dartal, the standards in anti-cholonergic therapy; and Dramamine and Dramamine-D, for the prevention and treatment of motion sickness and other nauseas.

Smith, Kline & French Laboratories
Philadelphia, Pa. **Booth No. 30**

S.K.F. features (1) Temaril® Tablets and Syrup, the oral medication specifically for the relief of itching, both mild and severe; (2) Vi-Sorbin®, the potent modern tonic that contains B_{12}, B_6, iron and folic acid, and incorporates the Absorption Enhancement Factor, D-Sorbitol; (3) Compazine®, the tranquilizer and antiemetic with minimal side effects; and (4) Thorazine®, one of the fundamental drugs in medicine.

E. R. Squibb & Sons
New York, N. Y. **Booth No. 57**

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the medical profession in new products or improvements in products already marketed.
At Booth No. 57, we are pleased to present up-to-date information on these advances for your consideration.

Standard Process Laboratories
Detroit, Mich. **Booth No. 60**

Standard Process Laboratories are manufacturers of Physiological Nutritional Adjuncts and Cytotrophic Extracts. CARDIOTROPHIN, the most spectacular of the Cytotrophics (heart protomorphogen), can improve a decompensated heart within minutes. This can be easily proved by the use of the Endocardiograph. Similarly, CARDIO-PLUS, a combination of Cardiotrophin with Vitamin G, as a vaso dilator and Vitamin E_2, a specific for angina pains, is also outstanding for coronary thrombosis, angina, tic-tac rhythm, et cetera. ANTI-GASTRIN is the most recent of the new products; it is a specific for Peptic, Gastric, Duodenal Ulcers and Ulcerative Colitis.

The Stuart Company
Pasadena, Calif. **Booth No. 37**

The Stuart representatives will welcome the opportunity to discuss with physicians the latest pharmaceutical developments of The Stuart Company. Among the products that will be featured, will be our line of Softab products which melt quickly on the tongue and are so pleasant tasting.

Testagar & Company, Inc.
Detroit, Mich. **Booth No. 24**

Stop by and see Q CAPS-AMODEX: the newest concept in time release capsules. It's clever! It's unique! Q CAPS-AMODEX for high level anorexigenic activity without excitation. Q CAPS-AMODEX insures accurate time release.

S. J. Tutag & Company
Detroit, Mich. **Booth No. 41**

S. J. Tutag & Company will present "GERITAG." Recent publications have attested to the advantage and efficacy of the 20 to 1 ratio of androgen to estrogen in the treatment of the ever present "aging" problem. Also exhibited will be "QUADAMINE" Granucaps: A sustained release capsule for use in obesity containing appetite depressant, sedation and full vitamin-mineral supplementation.

The Upjohn Company
Kalamazoo, Mich. **Booth No. 18**

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are deigned to assist you in the practice of your profession. We solicit your inquiries and comments.

U. S. Vitamin Corporation
New York, N. Y. **Booth No. 73**

On display—ARLIDIN, the safe vasodilator drug with three unique pharmacologic actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases cardiac output without significant increase in pulse rate, (3) promotes greater circulating blood volume. Thus, ARLIDIN (Nylidrin HCl. NNR) is indicated in treating intermittent claudication in arteriosclerosis obliterans, thromboganiitis obliterans, and diabetic vascular disease; also effective in Raynaud's Syndrome and ischemic ulcers.

Wyeth Laboratories
Philadelphia, Pa. **Booth No. 52**

Wyeth will feature:
ZACTIRIN®, containing Wyeth-developed ethoheptazine citrate and acetylsalicylic acid for the management of pain. ZACTIRIN is a well-tolerated, nonnarcotic analgesic, highly effective in the patient who requires something stronger than ASA to relieve pain, but less potent than a narcotic.
PROZINE*, (meprobamate and promazine hydrochloride, Wyeth), indicated in emotionally disturbed patients. Because of its simultaneous action on both the thalamic and hypothalamic areas of the brain, PROZINE produces more specific control of the patient displaying symptoms of anxiety and tension accompanied by motor excitability.

*Trademark.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

IMMUNIZATION SCHEDULES

Considerable confusion seems to exist regarding the need for strict adherence to recommended intervals between doses of antigens. Some apparently hold them so sacred that if a child misses his second or third dose by even a short interval he is told that he must start the series over again. Actually that is not so; the suggested intervals are minimum and not maximum and are a compromise between obtaining optimum protection and obtaining reasonably adequate protection.

It is an immunologic axiom that a first experience with a non-living antigen results in little or no rise in protective antibodies but does result in sensitizing the immunity-producing mechanism so that future experiences with the same antigen will result in a prompt and generally marked rise in protective antibodies.

An interval of a month between doses is generally the shortest period that will result in a sufficient degree of sensitization of the immune mechanism so that the second dose will elicit a reasonably adequate level of protection.

A better antibody response would be obtained if the interval between doses were lengthened to several months but during this interval the child faces possible exposure to disease with less than a protection level of antibody. To keep this hazardous interval at a minimum and not sacrifice too much in antibody response to the second dose we compromise between an optimum and an adequate response and recommend four to six weeks between the first and second doses of antigen. It is the risk of contracting disease between doses of antigen that results in the compromise between reasonable protection and optimum protection.

The recommended dosage schedule for poliomyelitis is a case in point. Poliomyelitis has a well-defined cycle of high and low incidence. The period of low incidence extends over a period of eight months, i.e., November through June. A reasonable procedure to obtain optimum protection with a minimum risk to the patient would be to start the vaccine series early in November. Two doses given a month apart will give sufficient antibody response to justify lengthening the period between the second and third doses to seven months.

This longer interval results in an increased sensitization of the immunity producing mechanism and there is a much greater increase in antibodies in response to the third dose than would have occurred with a shorter interval. A still longer interval would result in a better response but the objective is to give the three-dose series within the eight-month period of low incidence.

It is probably euphoric to think that paralytic poliomyelitis can be wiped out completely. However, through immunization, epidemics can be prevented and it can become a relatively rare disease.

POLIOMYELITIS IN MICHIGAN—1958

In 1958, Michigan had a high number of reported cases of poliomyelitis, paralytic and non-paralytic, exceeded only by West Virginia on a rate per 100,000 basis. The major portion of Michigan's cases were concentrated in the southeastern part of the State. Two southwestern Michigan counties and at least one in the Upper Peninsula, however, had an incidence comparable to that in the southeastern area. This experience again points out the cyclic unpredictable character of the disease. It also gives impressive evidence of the value of three properly spaced doses of poliomyelitis vaccine.

Non-Paralytic Poliomyelitis

The picture of poliomyelitis reporting is today becoming confused by the varied considerations given to non-paralytic disease. The applications of virology to the diagnosis of these cases indicates that many are actually due to other viruses and therefore should not be reported as non-paralytic poliomyelitis.

Paralytic Poliomyelitis

The vaccine has made it possible to prevent paralytic poliomyelitis. For some diseases, the unvaccinated gain a certain measure of protection from those that are vaccinated. This does not seem to be true of poliomyelitis. To be absolutely certain all must be protected; however, statistically, certain age groups are more vulnerable.

Of the 118 cases of paralytic poliomyelitis reported in 1957, forty-four (37 per cent) were in the zero to four age group. In 1958, of the 547 paralytic cases reported 293 (56 per cent) were in this same age group. Nationwide surveys show this age group to have a dangerously low immunization status. The nineteen to thirty year old male patient represents another group in which paralytic poliomyelitis has been comparatively high and which is also correlated with a low immunization status.

The elementary school age children are the best protected group. We need to continue to emphasize vaccination for them. The group of greatest need in Michigan and apparently in most of the nation is the pre-schoolers, and particularly the infant in arms. The infant needs poliomyelitis vaccine as soon as he can be given any other immunizations. The others, if they haven't had vaccine, should be started at once and followed up until they have adequate protection.

Most college graduates stay in their chosen professions throughout their working lives, according to a recent survey of Wayne State University alumni.

The study showed 64 to 86 per cent of the graduates of four Wayne colleges remaining in the professions for which they had trained.



when psychic symptoms distort the picture

Dartal helps the patient reintegrate his mental processes

In everyday office practice as well as under hospital conditions Dartal is consistent in its effects as few tranquilizers are.

Dartal promotes emotional balance

Dartal effectively decreases or relieves emotional hyperactivity and psychomotor excitement.

Dartal is unusually safe

At a recent symposium, leading hepatologists* concluded that Dartal is not icterogenic or hepatotoxic.

Dartal is effective at low dosage

One 2-mg. tablet q.i.d. or one 5-mg. tablet t.i.d. in neuroses; one 10-mg. tablet t.i.d. in psychoses.

a superior psychochemical
for the management of both major and minor emotional disturbances

Dartal®

dihydrochloride brand of thiopropazate dihydrochloride

SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

SPONTIN IN SERIOUS

A Special Report from Abbott to the Medical Profession on a Year's Clinical Experience with SPONTIN®

(Ristocetin, Abbott)

In a Spanish province, a patient lay dying of endocarditis. A short wave radio appeal for SPONTIN was intercepted by a Baltimore physician. The antibiotic was immediately flown to this faraway land, and 10 days later—the patient had recovered.

In Chicago, a moribund patient had been administered 18 combinations of 10 different antibiotics without success. Involved was a hospital-acquired staphylococcal pneumonia—plus complications. SPONTIN was substituted and the patient lived.

A five-week-old infant was critically ill with staphylococcal enteritis. Treatment failures included erythromycin and chloramphenicol. Three days of SPONTIN saved this life. The list is long and impressive and it grows daily.

Recently, a study[1] was made of serious and resistant staphylococcal infections reported to Abbott Laboratories. Many of these cases had serious complicating diseases—many were moribund, or almost so, at the time SPONTIN was started. Yet, out of the 160 staphylococcal cases studied, 93 were reported cured and 38 improved after the administration of SPONTIN.

Out of the total of 251 patients with severe infections caused by gram-positive or mixed organisms, 149 were reported cured and 53 others improved. And the record for pediatric practice was every bit as good.

Additionally, SPONTIN continues to exhibit exceptional bactericidal activity against coccal infections[2]. And, according to another study, SPONTIN provides successful short-term therapy in endocarditis[3].

901066

Only last October, at the Antibiotics Symposium in Washington, D. C., a panel of six leading antibiotic experts placed SPONTIN at the top of all other commercially-available antibiotics for treating serious staphylococcal infections. Also, six papers—all dealing with the effectiveness of ristocetin (SPONTIN®) in treating staphylococcal infections—were presented at the Symposium.

One of the most encouraging aspects of the year's literature on SPONTIN is the increasing testimony to its safety. As the months have passed and cases have accumulated by the hundreds, it has become apparent that careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals.

A recent report[4] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a [well tolerated] and potent agent to employ in the treatment of staphylococcal infections." And in another study, after successfully treating 28 patients with a variety of staphylococcal infections, the authors reported[5], "No serious complications were noted."

Few more dramatic records have been written in such a short space of time. SPONTIN has proved itself to be a good answer, perhaps the best answer at present, to the resistant staphylococcal problem—and of real value in other serious coccal infections. It may well be your answer when you're confronted with a serious infection.

Abbott

Say you saw it in the Journal of the Michigan State Medical Society

STAPHYLOCOCCAL INFECTIONS

Excerpts from Reports Read at the Antibiotics Symposium

Spontin In Treating Severe Respiratory Infections —"In 13 of 20 patients the results were excellent, with clinical response being evident within one to four days after institution of therapy. In three additional patients, there was some degree of improvement in pneumonic processes superimposed on tuberculosis in two cases and on pulmonary neoplasm in one. In all other cases, serious antecedent pathology undoubtedly influenced the negative or equivocal response to ristocetin therapy.[6]"

Spontin In Treating Staphylococcal Infections—After successfully treating 28 patients, the authors wrote, "Ristocetin or Spontin has proved to be bactericidal and bacteriostatic, particularly for the *Staphylococcus aureus,* which is often resistant to many other antibiotics.[5]"

Spontin In Treating Seven Difficult Cases — "Ristocetin has produced excellent results in eradicating, mitigating or preventing infection in seven selected difficult cases. Six of the seven cases involved *Staphylococcus aureus* which did not respond to chemotherapy with other antibiotics.[7]"

Spontin Blood Levels In Children — "Ristocetin was administered as a single intravenous injection of 12.5 milligrams per kilogram. This resulted in serum levels ranging from 1.3 to 10.6 mcg. after two hours with a gradual fall to a level of 0.7 mcg. per cubic centimeter or less after 12 hours.[8]"

Spontin In Treating Staphylococcal Pneumonia —"Ristocetin was used in the treatment of 24 patients with staphylococcal pneumonia, 17 of whom had failed to respond to previously administered antibiotics. Complete clearing of pneumonitis was obtained in 16 patients and significant improvement occurred in two others. Two patients died of pneumonia; four others succumbed to other lethal diseases.[9]"

Spontin In Treating Children and Adults — "Ristocetin completely controlled severe staphylococcal infections in 11 adults and six children who received adequate therapy.[10]"

1. Totals represent published reports and personal communications to Abbott Laboratories.
2. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
3. Romansky, M. J., and Holmes, R., Successful Short-Term Therapy of Enterococcal and Staphylococcal Endocarditis with Ristocetin—Seven Patients. Preliminary Report, Antibiotics Annual, 1957-58, p. 187.
4. J. A. M. A., 167:1584, July 26, 1958.
5. Bush, L. F., et al., The Use of Ristocetin (Spontin) in Staphylococcal Infections, In Press, Antibiotics Annual, 1958-59.
6. Billow, F. J., et al., Clinical Observations on Ristocetin—A Preliminary Report on its Efficacy and Toxicity in 20 Unselected Severe Respiratory Infections, In Press, Antibiotics Annual, 1958-59.
7. Miller, J. M., et al., Ristocetin in the Treatment of Seven Selected Difficult Cases, In Press, Antibiotics Annual, 1958-59.
8. Asay, L. D., et al., Ristocetin Serum Levels in Children, In Press, Antibiotics Annual, 1958-59.
9. Schumacher, L. R., et al., Experiences with Ristocetin in Staphylococcal Pneumonia: Observations in 23 Cases, In Press, Antibiotics Annual, 1958-59.
10. Terry, R. B., Ristocetin in Children and Adults, In Press, Antibiotics Annual, 1958-59.

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company

233 Washington S. E. **Phone GL 9-8274**
Grand Rapids 2, Mich.

Medical Arts Pharmacy

20-24 Sheldon S.E. **Phone GL 9-8274**
Grand Rapids 2, Mich.

In Memoriam



ALEXANDER WILLIAM BLAIN, M.D., seventy-three, Detroit surgeon, died December 13, 1958.

Doctor Blain was born a few blocks from the Alexander Blain Hospital, Detroit, which he founded and named in honor of his father. A Wayne Medical College graduate in 1906, Doctor Blain became assistant to H. O. Walter, M.D., Professor of Surgery at the Medical College, after graduation. During his early days of practice, he served as house officer in Harper Hospital.

Doctor Blain was past president of Wayne County Medical Society; past president and founder of the Detroit Academy of Surgery and a founder of the American College of Surgeons.

Active in conservation of wild life and historical activities, he was appointed a member of the Public Welfare Commission by the late Detroit mayor, John W. Smith, and served two terms as a member of the Michigan Conservation Commission and the Zoological Commission. One of Doctor Blain's last efforts, which he had well under way when he died, was the establishment of Detroit's National History Museum on the third floor of the Old City Hall.

Doctor Blain helped establish the Audubon Society and was a member of the Zion Lodge No. 1, F & AM. He was a member of the Detroit Commandery, Knights Templar, the Moslem Temple Shrine, the Detroit Boat Club and the Noon Tide Club.

Survivors include two sons associated with him at the hospital, Alexander Blain III, M.D., and Donald G. Blain, M.D.

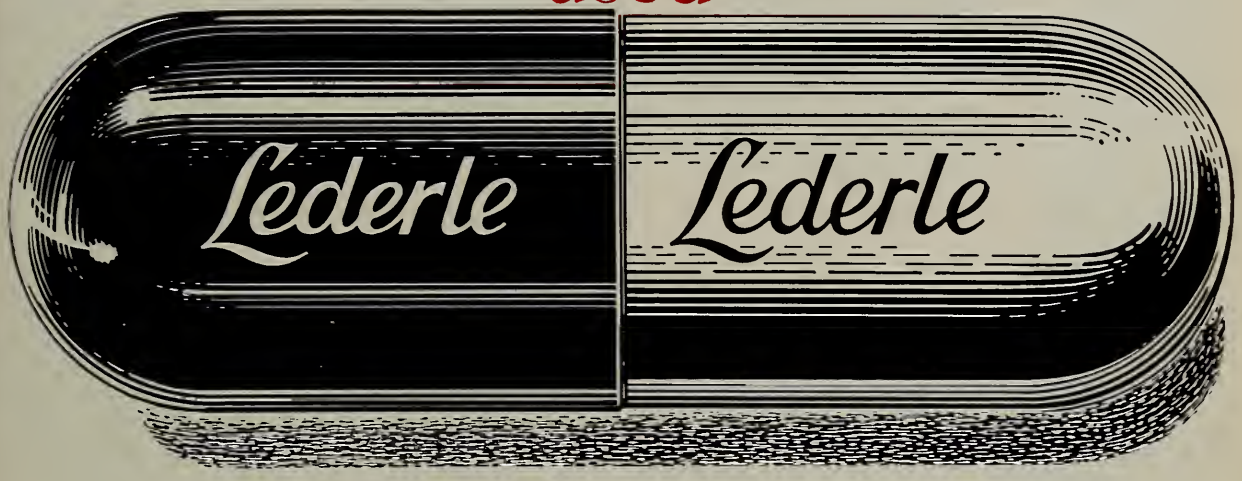
JAMES W. BARNEBEE, M.D., eighty, Kalamazoo physician, died December 19, 1958. He was born at Leonidas, Michigan, and was educated at the University of Michigan before receiving his medical degree from Rush Medical College in 1901. Doctor Barnebee began private practice at Fulton, Michigan, in 1901, and later moved to Mendon, where he served as health officer from 1904 to 1911. From 1911 until his demise, he had practiced in Kalamazoo, where he was a staff member of Bronson and Borgess Hospitals.

Survivors include a son, James Leslie Barnebee, M.D., of Kalamazoo.

ALEXANDER CRUIKSHANK, M.D., eighty-seven, Detroit physician, died December 15, 1958. A native of Quebec, he graduated from the McGill University Medical School in 1895. Before his retirement he had practiced forty-one years in Detroit as a general practitioner.

(Continued on Page 258)

in
this capsule
lives the
most widely
used



the most
widely useful
antibiotic
in the
world

Achromycin® V
Tetracycline with Citric Acid Lederle

SUPPLIED IN CAPSULES OF 250 MG.
WITH 250 MG. CITRIC ACID,
AND 100 MG. WITH 100 MG. CITRIC ACID.

Lederle LEDERLE LABORATORIES, A DIVISION OF AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

RESEARCH

Research directed at the creation of new, more effective therapeutic agents and support of basic research concerned with new therapeutic concepts are obligations that confront pharmaceutical industry.

Ordinarily small pharmaceutical concerns do not engage in these activities.

It is with pride, therefore, that we wish to point toward the fact that Meyer and Company are presently supporting four research projects in recognized institutions in the United States and Canada, and that these grants are proportionately far in excess of the funds ordinarily allocated by other pharmaceutical concerns.



MEYER AND COMPANY

Pharmaceutical Manufacturers

Detroit 24, Michigan

(Continued from Page 256)

RUSSELL CUSHING, M.D., fifty-seven, Detroit physician, died December 1, 1958. A native Detroiter and a graduate of Wayne State University Medical School, Doctor Cushing had practiced in Detroit since 1929. He was a member of the Holy Cross Hospital Staff and Our Lady of the Sea Roman Catholic Church.

HENRY A. HERZER, M.D., eighty-nine, Albion physician, died November 28, 1958. Doctor Herzer was an Albion physician from 1901 to 1952. A native of Chelsea, he was graduated from the University of Michigan Medical School and was a member of the Sheldon Memorial Hospital staff. He was a fifty-year member of the Murat Lodge No. 14 and Albion Chapter No. 32, local Masonic Chapters.

HORACE HALL LOVELAND, M.D., ninety-two, Upper Peninsula physician, died December 15, 1958. Doctor Loveland was born in Newark, N. Y. Following his graduation from the University of Michigan Medical School in 1894, he practiced in Michigamme and Republic thirty years, and in Tecumseh twenty-seven years until he retired five years ago. He was a member of the First Methodist Church of Escanaba, was a life member of Tecumseh Blue Lodge, the Royal Arch and the Eastern Star.

ERNEST C. RISEBOROUGH, M.D., sixty-three, Detroit physician, died December 3, 1958. Doctor Riseborough was a native of Blenheim, Ontario, and a graduate of the University of Toronto. A Shriner and past president of Kiwanis Club No. 1, he also served as a director at Goodwill Industries.

RUSSELL W. ULRICH, M.D., sixty-six, Mount Clemens physician, died November 12, 1958. Doctor Ulrich had practiced in Mount Clemens since his discharge as an Army Medical Officer in World War II. A graduate of University of Michigan, he had served as Chief of Staff of St. Joseph Mercy Hospital.

JOSEPH G. WEISS, M.D., forty-nine, Detroit psychiatrist, died November 6, 1958. Doctor Weiss was graduated from the University of Michigan and Wayne State University Medical Schools and had practiced in Detroit since 1934. During the last three years, he had served a residency at the Pontiac State Hospital.

"Competition in athletics for children can serve as a positive force if every child learns to take losses as well as victories. Competition among children should not follow the intercollegiate pattern of worshipping the star performer and neglecting the unskilled. It should, instead, be kept within such bounds as to promote both the growth of the child's body and the development of a personality."—JEAN HOXIE, Hamtramck, Michigan, "Competitive Athletics for Children," J.A.M.A., Nov. 15, 1958.



Medicine's priceless past is but prologue to its brilliant present and future. To help provide a better public understanding and awareness of Medicine's proud traditions, Parke-Davis will launch a unique and informative new institutional advertising campaign this month. GREAT MOMENTS IN MEDICINE will depict historically accurate scenes of advancements in Medicine through the centuries. This very colorful and interesting Parke-Davis campaign will appear regularly during 1959 in LIFE, SATURDAY EVENING POST, TIME, READER'S DIGEST, and TODAY'S HEALTH. As a preview to the medical profession, the first ad in this series is reprinted above. Within a few weeks millions of people throughout the United States—and the world—will also see it.

PARKE-DAVIS

... Pioneers in better medicines



. . . . . NEWS MEDICAL

DEATH COMES IN THE SPRING

Spring elections seldom excite the electorate.
Politicians observe "trends"; say little.
Pundits cynically bemoan the lack of votes.
Winners and losers, alike mutter "If . . ."

But, to the professions—and to Medicine particularly, the spring elections are of great import.

The offices which govern our schools where we were—and our children are—taught are up for grabs on April 6.

The offices which determine the teaching of the teachers are on the ballot this April 6.

The offices that control our university hospitals, our medical schools are going to be filled come April 6.

The offices of those who will render the ultimate decisions on state policy respecting medical practices and malpractices are to be filled April 6.

We—the People most concerned—must take action before April 6 to be at the polls on that important day.

I say this mildly. Death is sometimes mild, but it's mighty important. We're "dead" if we don't vote on April 6.

GILBERT B. SALTONSTALL
President, Michigan State Medical Society

MICHIGAN AUTHORS

John W. Smillie, M.D., Ann Arbor, is the author of an article entitled "Eye Removal and a Modified Gifford Evisceration Operation," published in THE JOURNAL of the Michigan State Medical Society and digested in *Digest of Ophthalmology and Otolaryngology,* October, 1958.

Kathryn J. McMorrow, M.D., Detroit, is the author of an article entitled "Management of Multiple Sclerosis in General Practice," published in *GP,* December, 1958.

James A. McLean, M.D., Ann Arbor, is the author of an article entitled "Some Considerations in the Management of Bronchial Asthma," published in *GP,* December, 1958.

Edwin L. Prien, M.D., Brookline, Massachusetts, is the author of an article published in THE JOURNAL of the Michigan State Medical Society, August 1958, and condensed in *Current Medical Digest,* December, 1958. The title of the article is "Recent Advances in Treatment of Urinary Stone."

Richard D. Liechty, M.D., Ann Arbor, is the author of an article entitled "Histological Evaluation of Liver Biopsy Techniques," published in AMA *Archives of Surgery,* November, 1958.

Irving Feller, M.D., and **Russell T. Woodburne, Ph.D.**, Ann Arbor, are the authors of an article entitled "The Long Thoracic and Thoracodorsal Nerves in Radical Mastectomy," published in *Surgery, Gynecology and Obstetrics,* December, 1958.

David Barsky, M.D., and **Robert A. Schimek, M.D.**, Detroit are the authors of an article entitled, "Evaluation of Absorbable Gelatin Film (Gelfilm) in Cyclodialysis Clefts," published in AMA *Archives of Ophthalmology,* December, 1958.

R. A. Schimek, M.D., **J. V. Balian, M.D.**, **F. J. Lepley, M.D.**, and **J. A. Ottum, M.D.**, Detroit, are the authors of an article entitled, "Evaluation of Dichlorphenamide as an Ocular Hypotensive Agent," published in the AMA *Archives of Ophthalmology,* December, 1958.

Douglas A. Person, M.D., and **Richard D. Judge, M.D.**, Ann Arbor, are the authors of an article entitled, "Effect of Operation on Serum Transaminase Levels," published in the AMA *Archives of Surgery,* December, 1958.

Medical Teaching Films.—One of the most popular film series in the American Medical Association library for the past fifteen years is being "modernized" by its creators at Wayne State University College of Medicine.

The original 15-reel color film on "Physical Diagnosis" is being revised to include some of the top teachers in American medicine demonstrating their specialties in color and with sound.

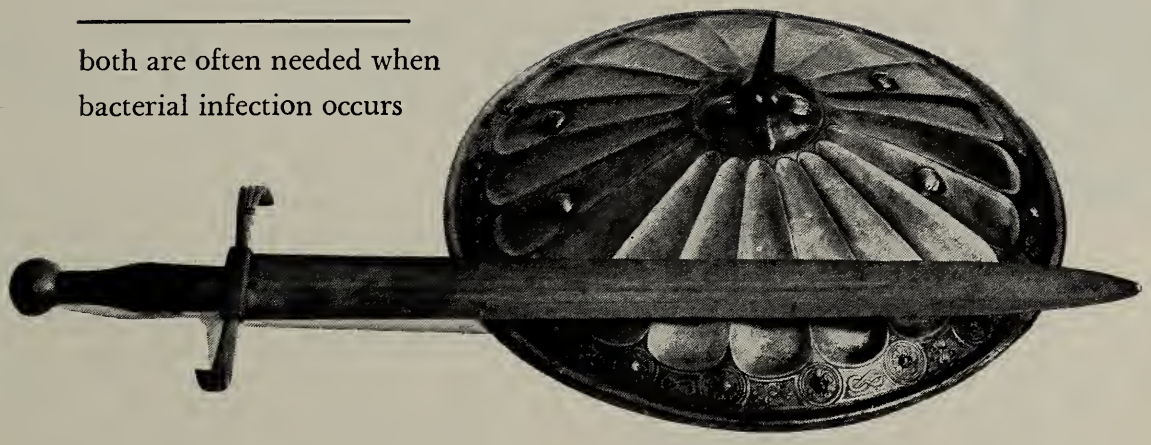
Frederick J. Margolis, M.D. of Kalamazoo, director of Audio-Visual Education for the College of Medicine, originator of the first film, is supervising the new project.

AMA film library director Ralph P. Creer said the films received in 1943 "became increasingly and con-

(Continued on Page 264)

▮ prompt, aggressive
antibiotic action
▮ a reliable defense against
monilial complications

both are often needed when
bacterial infection occurs



for a direct strike at infection
Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

It provides the new chemical form of the world's most widely prescribed broad spectrum antibiotic.

It provides unsurpassed initial blood levels — higher and faster than older forms of tetracycline — for the most rapid transport of the antibiotic to the site of infection.

for protection against monilial complications
Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.*
Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

SQUIBB *Squibb Quality — the Priceless Ingredient*

'MYSTECLIN'®, 'SUMYCIN'®, AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS

V^{10} protein is a COMPLETE PROTEIN



Complete protein is essential to the maintenance of body cells

Constant daily replacement of protein forming the cells of blood, skin, muscle, nerve, bone, and even teeth, is necessary to maintain health and vigor. In order that this process be maintained, the diet must contain adequate quantities of "complete protein" with all of the essential amino acids for simultaneous ingestion.

The Wisconsin Alumni Research Foundation has licensed the production of such a complete protein in the form of V^{10} Protein Concentrate. V^{10} Protein is composed entirely of grains, yet results of laboratory tests by the Foundation show that it has a protein efficiency value equal to casein, the high quality protein standard commonly used in protein evaluation work.*



Now V^{10} Protein is available in Michigan in V^{10} Protein Bread and V^{10} Protein Graham Crackers. These delicious foods add variety to the daily dietary requirement for protein. V^{10} Protein Bread and Graham Crackers will greatly aid in the planning of meals and will help promote health and vigor for all age groups.

WISCONSIN ALUMNI RESEARCH FOUNDATION

*A complete report on these animal feeding studies is available on request. Address WISCONSIN ALUMNI RESEARCH FOUNDATION, P. O. Box 2217, Madison 1, Wis.

(Continued from Page 260)

sistently more popular." Approximately 350 requests a year are received, some from medical schools as far as Tokyo and Saudi Arabia.

Twenty medical schools have purchased the film for their own use.

Good clinical teaching requires a combination of circumstances a variety of patients with ailments in sufficient variety to cover the subject. With this available, teachers have but one of the basic needs for a good presentation. It is difficult to organize such a presentation, as chance must govern the time when people with different disorders come to the teacher. These films bring the sick, the skilled teacher and the student together so that each may benefit.

Authorities and areas to be presented in the first of the series are: Franklin H. Top, M.D., State University of Iowa and Louis Weinstein, M.D., of Boston—Contagious Disease; C. G. Van Riper, M.D., Western Michigan University and Paul H. Holinger, M.D., University of Illinois—Disorders of Speech; William T. Green, M.D., Harvard University—Orthopedic Gaits and A. M. Ornstein, M.D., University of Pennsylvania—Neurological Gaits; George Shambaugh, M.D., Northwestern University—Disorders of Hearing.

Clinical examples of disease illustrated in the original films were photographed at Detroit Receiving and Wayne County General hospitals from 1939 to 1943 by Gordon Myers, M.D., Muir Clapper, M.D., and F. J. Margolis, M.D. Dr. Myers, professor of medicine and chief of the Wayne State University Medical Section at Harper Hospital and Dr. Clapper, professor and acting chairman of the Department of Medicine, are consultants on the new film.

Financial sponsor for the first four reels are Ciba Pharmaceutical Products, Inc. Photographer is Rex Flemming of Santa Barbara, California. Filming locations have been hospitals in Boston, Philadelphia, Chicago, Wayne County General and Receiving in Detroit.

Premiere of the film, by invitation, will be in June at the AMA session in Atlantic City, N. J.

About five years will be required to cover the approximately twenty areas planned for the film, Dr. Margolis said. Estimated life of the films should be fifteen to twenty years due to the non-changing character of the subject matter.

When completed, the first four reels of the series will be admitted to the AMA library.

* * *

Carl V. Weller Lecture.—E. T. Bell, M.D., professor emeritus of pathology at the University of Minnesota, delivered the third annual Carl V. Weller Lecture at The University of Michigan Medical Center, December 13, 1958.

He addressed a meeting of the Michigan Pathological Society. The Weller Lectures were established by the Society in 1956 to honor the late chairman of the Department of Pathology at the University of Michigan Medical School.

Previous addresses in the series have been given by

(Continued on Page 266)

Until the discovery of DECADRON* by MERCK SHARP & DOHME, when your diabetic patients were also in need of corticosteroid treatment, you were often faced with a difficult therapeutic dilemma. Diabetes mellitus was a recognized contraindication to the use of corticosteroids, since they not only aggravated the existing diabetic symptoms, but often precipitated latent diabetes.

NOW EVEN many diabetic patients may have THE FULL BENEFITS OF CORTICOSTEROID THERAPY

DECADRON—the new and most potent of all anti-inflammatory corticosteroids—is remarkable for its **virtual absence of diabetogenic effect** in therapeutic doses.



Decadron*

DEXAMETHASONE

to treat more patients more effectively

In clinical trials with some 1,500 patients glycosuria was noted in only two, transitory glycosuria in another two, and flattening of the glucose tolerance curve in one. There were no instances of aggravation of existing diabetes, no increase in insulin requirements. Patients whose diabetes was severely aggravated on prednisolone showed good tolerance when transferred to DECADRON.

MORE patients can be treated with DECADRON than with other corticosteroids, because in addition to being practically free of diabetogenic activity, therapy with DECADRON is also practically free of sodium retention, potassium depletion, hypertension, edema and psychic disturbances. Cushingoid effects are fewer and milder. DECADRON has not caused any new or "peculiar" reactions, and has produced neither euphoria nor depression, but helps restore a "natural" sense of well-being.

*DECADRON is a trademark of Merck & Co., Inc., ©1958 Merck & Co., Inc.

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.



Noble-Blackmer, Inc.
INTRODUCES
THE EASY INEXPENSIVE WAY TO ADMINISTER ANTIBIOTIC AND MUCUS-DISSOLVING INHALANTS at Home

℞ *NEBU-HALENT*®

®I-L-T NEBULIZER and PRESSURIZED CARTRIDGE

Contains Halon® (dichlorodifluoromethane), 4% of inspired air.

replaces oxygen and compressed air propulsion

Cartridge lasts from 5 to 7 days at rate of half-hour intermittent inhalation three times daily; operates any standard nebulizer with suitable hose attachment. Only $5. for nebulizer; $2. for cartridge, 16 oz.

* *Intermittent-Long-Term inhalation (as opposed to continuous flow inhalation); saves medication.*

NOBLE-BLACKMER, INC.
253 W. Michigan Avenue, Jackson, Michigan

(Continued from Page 264)

Howard T. Karsner, M.D., advisor to the Surgeon General, U. S. Navy, and by John C. Bugher, M.D., of the Rockefeller Foundation.

The meeting was held in Rackham Amphitheater on the University of Michigan campus.

* * *

National Medical Foundation for Eye Care.—Ralph O. Rychener, M.D., of Memphis, was re-elected president of the National Medical Foundation for Eye Care by the Foundation's Board of Trustees, at their recent annual meeting in Chicago. Dr. Rychener also serves currently as AMA delegate of the Section on Ophthalmology.

The trustees also elected Harold F. Falls, M.D., of Ann Arbor, vice president of the Foundation, succeeding the late Edwin Forbes Tait, M.D., of Norristown, who died on September 23, 1958. Charles E. Jaeckle, M.D., of East Orange, New Jersey, was re-elected secretary, and Harold G. Scheie, M.D., of Philadelphia, was elected treasurer.

Barnet R. Sakler, M.D., of Cincinnati, was re-elected chairman of the Executive Committee, which comprises Drs. Falls, Jaeckle, Sakler and J. Spencer Dryden of Washington, D. C.

Additional trustees elected to serve during the coming year included: Alson E. Braley, M.D., Iowa City, Iowa, Kenneth C. Brandenburg, M.D., Long Beach, California, Frank D. Carroll, M.D., New York, New York, Lawrence R. Dame, M.D., Greenfield, Massachusetts, Purman Dorman, M.D., Seattle, Washington, Howard F. Hill, M.D., Waterville, Maine, Michael J. Hogan, M.D., San Francisco, California, John L. Matthews, M.D., San Antonio, Texas, Samuel D. McPherson, Jr., M.D., Durham, North Carolina, A.D. Ruedemann, M.D., Detroit, Michigan, Derrick Vail, M.D., Chicago, Illinois.

Organized by ophthalmologists in 1956, the Foundation serves the public by research and publication of special reports and other literature for distribution through the medical profession to the public, in order to help the American people to understand the basic professional and scientific standards of good eye care.

* * *

Windsor S. Davies, M.D., clinical professor of ophthalmology, Wayne State University College of Medicine and Chief of the Pathology Department, Kresge Eye Institute, upon invitation of the Pan-American Ophthalmological Society has given lectures in six South American countries. His lecture topics were "Diseases of the Macula and Anterior Chamber Epithelium."

Dr. Davies left Detroit, Saturday, December 27, for a month tour. He spoke to ophthalmological groups in Rio de Janeiro and Sao Paulo, Brazil; Montevideo, Uruguay; Buenos Aires, Argentina; Santiago, Chile; Lima, Peru and Bogota, Colombia.

* * *

The Council on Rural Health of the American Medical Association has called its Fourteenth National Conference on Rural Health to be held at the Broadview Hotel, Wichita, Kansas, on March 5, 6, 7, 1958. The

(Continued on Page 270)



JUST 1 TABLET DAILY

WHENEVER SULFAS ARE INDICATED

KYNEX*

Sulfamethoxypyridazine Lederle

provides therapeutic sulfa levels for 24 hours... Highly soluble . . . rapidly absorbed . . . produces fast, sustained plasma-tissue concentrations. Simple, easy-to-remember, single 0.5 Gm. daily dose. No crystalluria. [1]

with low incidence of sensitivity reactions... Extremely low in toxic potential. [2, 3] No cutaneous or other objective reactions seen in a wide scale study of clinical toxicity. [2] Even minor subjective reactions are not expected to occur [2] or are reported absent [3] when recommended schedule is used.

TABLETS, 0.5 Gm., bottles of 24 and 100. New ACETYL PEDIATRIC SUSPENSION, cherry flavored, 250 mg. sulfamethoxypyridazine activity per teaspoonful (5 cc.), bottles of 4 and 16 fl. oz.

1. Editorial: New England J. Med. 258:48, 1958.
2. Vinnicombe, J.: Antibiotic Med. & Clin. Ther. 5:474, 1958.
3. Sheth, U. K., et al.: Ibid., p. 604, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.
*Reg. U.S. Pat. Off.

Lederle

LETTERS
TO THE MEDICAL DIRECTOR

Dear Doctor:

Rauvera* was used on five patients with essensential hypertension varying from moderate to severe. The highest blood pressure was 220/130 and the lowest 180/105.

All patients have shown a consistent response to the drug and the continuation therapy has effected a good control so far . . . approximately two to three months. In four patients systolic blood pressure was reduced from 20 to 50 mm. Hg and the diastolic from 10 to 15 mm. One patient, who had a pressure of 220/130 has had a phenomenal response, and I brought the systolic down to 165 and the diastolic to 95.

M. D., Wisconsin

Dear Doctor:

Rauvera has produced satisfactory reductions of blood pressure in every hypertensive case in which I have used it.

M. D., Colorado

Dear Doctor:

Rauvera tabs are my choice for hypertension over 170 . . . they give me the best results.

M. D., Texas

Comment: *It is interesting to note that no adverse side effects were reported in connection with Rauvera's effective antihypertensive action.*

*Rauvera contains 1 mg. alseroxylon (purified Rauwolfia serpentina alkaloid), 3 mg. alkavervir (Veratrum viride fraction) in each scored tablet.

SMITH-DORSEY • Lincoln, Nebraska

(Continued from Page 266)

conference theme will be "Horizons in Rural Health," and special stress is being centered on such important subjects as mental health, problems of the aging, nutrition, dental health, the costs of medical care and the various aspects of health insurance. Discussion periods are planned with ample time for audience participation.

* * *



JAY C. KETCHUM

A national post has been announced for Jay C. Ketchum, Executive Vice President and General Manager of Michigan Medical Service since 1942. He resigned that post, in December, to be Executive Vice President of Health Service, Inc., and Medical Indemnity of America, Inc., the national organizations which co-ordinate Blue Cross-Blue Shield operations in the United States, Canada and Puerto Rico. He will take over the new post in Chicago, March 1.

Congratulations, Jay Ketchum, and commendation on an excellent job done for Michigan's Blue Shield during the past sixteen years!

* * *

The Michigan Rural Health Conference will be held at the Kellogg Center, East Lansing, April 8-9, 1959. The general topic is "Safe Roads to Health." Subjects to be discussed will be, "Milk Inspection Techniques and Procedure," "The Effects of Antibiotics in Use with Animals," "Diseases Inherent in Animal Husbandry in Michigan," "What Can We Do to Reduce Traffic and Accident Problems?," "Problems in the Widespread Use of Antibiotics in the Human." At luncheon, Richard Bates, M.D., Lansing, will present "How to have a Heart Attack." There will be desk-side conferences to permit registrants to obtain answers to their specific health questions. Arthur S. Flemming, Secretary of Health, Education and Welfare, will be the speaker at the banquet in the evening.

On April 9, profession day, the program will include papers on "Medical Aspects of Highway Safety," "Management of the Injured," "Present Problems of Juvenile Delinquency," "Geriatrics." Waldo Bird, M.D., will speak at the luncheon on "What Is Mental Health?"

* * *

More Blue Cross Troubles.—On the last day of December, the newspapers and radios throughout the state announced the action on Tuesday, December 30, of the Wayne County Board of Auditors that it will name a four-member committee to investigate Blue Cross rates and compare them with the rates of other companies. This investigation is being made at the request of Frank

(Continued on Page 272)

A workhorse "mycin" for common infections



respiratory infections

prompt, high blood levels

consistently reliable and reproducible blood levels

minimal adverse reactions

With well-tolerated CYCLAMYCIN, you will find it possible to control many common infections rapidly and to do so with remarkable freedom from untoward reactions. CYCLAMYCIN is indicated in numerous bacterial invasions of the respiratory system—lobar pneumonia, bronchopneumonia, tracheitis, bronchitis, and other acute infections. It has been proved effective against a wide range of organisms, such as pneumococci, H. influenzae, streptococci, and many strains of staphylococci, including some resistant to other "mycins." Supplied as Capsules, 125 and 250 mg., vials of 36; Oral Suspension, 125 mg. per 5-cc. teaspoonful, bottles of 2 fl. oz.

new

CYCLAMYCIN®

Triacetyloleandomycin, Wyeth

PHYSICIANS' COUNCIL • INFORMATION ON CHILD HEALTH •

Conforms to Code for Advertising

Wyeth®
Philadelphia 1, Pa.

THE FINE NEW ELECTROCARDIOGRAPH



The "Versa-Scribe" is a completely new instrument offering features of convenience, superior performance and versatility not now available in any other portable direct-writing Electocardiograph.

Use of the most modern electronic techniques, including transistors and printed circuits, combined with the craftsmanship of skilled instrument makers of long experience, has not only made possible a superior performing electrocardiograph, but one possessing fine appearance, small size (5¼" x 10½" x 17"), and low weight—20 pounds.

Send for literature or a demonstration, Doctor. The "Versa-Scribe" will be your "electrocardiograph of choice."

It does more—better!

CAMBRIDGE ALSO MAKES

the "Simpli-Scribe" Direct Writing Electrocardiograph shown, the "Simpli-Trol" Portable Model, Multi-Channel Recorders, Pulmonary Function Tester, Operating Room Cardioscopes, Educational Cardioscopes, Electrokymographs, Plethysmographs, Amplifying Stethoscopes, Research pH Meters, and Instruments for Measuring Radioactivity.



CAMBRIDGE INSTRUMENT CO., Inc.
3732 Grand Central Terminal, New York 17, N. Y.
Cleveland 11, Ohio, 13000 Triskett Road
Detroit 2, Mich., 7410 Woodward Avenue
Oak Park, Ill., 6605 West North Avenue
Jenkintown, Pa., 479 Old York Road
Silver Spring, Md., 933 Gist Avenue

CAMBRIDGE ELECTROCARDIOGRAPHS

Pioneer Manufacturers of the Electrocardiograph

(Continued from Page 270)

D. Williams, business agent for Local 77, State, County and Municipal Employees Association, protesting the recent 18.5 per cent increase. Jacob P. Sumeracki, board chairman, named two members of the committee—Louis G. Basso, county budget director, and Albert Champney, director of the County Bureau of Taxation.

In Grand Rapids, the city's four major hospitals have notified Blue Cross that they intend to withdraw from its hospitalization program unless the newly adopted payment program is changed by April 1. Representatives of Butterworth, Blodgett Memorial, St. Mary's and Ferguson-Droste-Ferguson Hospitals protested the newly adopted method of determining ceiling payment by averaging groups in an area instead of each hospital as previously.

This new formula was adopted, so they claim, in spite of the thirty hospitals in the Grand Rapids area voting against the plan last summer.

* * *

Kenneth P. Mathews, M.D., Associate Professor of Internal Medicine, University of Michigan, has been granted leave of absence from January 15 to April 15, 1959 by the Board of Regents. He plans to study research methods in the Immuno-chemistry Laboratory at Walter Reed Army Institute of Research in Washington, D.C., under the direction of Almer L. Becker, M.D.

* * *

George Zavitzianos, M.D., associate professor of Psychiatry in the Medical School, at the University of Michigan, was granted leave without salary from January 29, 1959 to January 28, 1960. He plans to investigate the ego psychology with special reference to borderline psychotic and prepsychotic conditions with the study being carried on at the New York Psychoanalytic Institute and the London Psychoanalytic Institute.

* * *

Gordon H. Scott, D.Sc., Dean of Wayne State University Medical School and an associate member of the Michigan State Medical Society, was honored by the University of Minnesota by receiving their Outstanding Achievement Award at Commencement exercises in June. The award was presented by Charles W. Mayo, M.D., a regent of the University of Minnesota. Dr. Scott was cited for his achievement as "builder and user of the nation's first electron emission microscope, avid researcher in localizing mineral constituents within the cell, stimulator of young men to develop their full professional capabilities."

* * *

Newsweek for the Blind.—The American Printing House for the Blind of Louisville, Kentucky, a 100-year-old organization and the world's largest publisher for the blind, has announced a non-profit arrangement which will make *Newsweek* the first complete news source for the blind. Beginning with the issue of January 5, 1959, sightless subscribers will receive recordings which contain word for word readings of everything in *Newsweek* except its ads and letters to the editor. Advance proofs of the magazine will be flown to the American Printing

(Continued on Page 274)

PRODUCTS OF DISTINCTION FROM THE PURDUE FREDERICK COMPANY

Cerumenex™ DROPS

For easy, safe, painless removal of ear wax—without instrumentation



Proved clinically effective in 4,464 (95.0 per cent) of 4,695 patients (ages 3 months to 83 years) with excess or impacted cerumen†

For patient convenience and economy, prescribe 'Cerumenex' Drops in the regular 15 cc. bottle, packaged with cellophane wrapped blunt-end dropper.

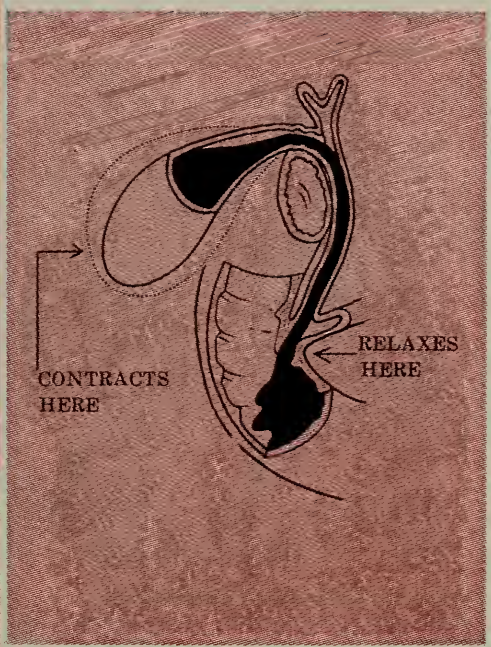
†Complete bibliography available on request

T.M. CERUMENEX CONTAINS CENAPON® 10.0% IN PROPYLENE GLYCOL WITH CHLORBUTANOL 0.5% ®BRAND OF TRIETHANOLAMINE POLYPEPTIDE OLEATE-CONDENSATE. U.S. AND FOREIGN PATENTS PENDING

PROBILAGOL™ LIQUID

cholecystokinetic-cholagogue action

Specifically designed for therapeutic and prophylactic management of dyspepsia and food intolerance



A unique cholecystokinetic-cholagogue, 'ProBilagol' provides prompt gallbladder evacuation, prolonged relief, safety, extreme palatability

Supply: Bottles of 12 and 6 fluid ounces.

T.M. PROBILAGOL D-GLUCITOL WITH HOMATROPINE METHYLBROMIDE, PURDUE FREDERICK

Senokot®

natural bowel corrective

TABLETS / GRANULES

IN CONSTIPATION



Assures bowel correction and rehabilitation because it "...acts in a way almost indistinguishable from the normal physiologic mechanism..."[1]

without mucosal irritation due to chemical contact

without incompatibilities to antacids and other medications

Supply: Tablets, small and easy to swallow, in bottles of 100. Granules, cocoa-flavored, in 8 and 4 ounce canisters.

1. Herland, A. L., Lowenstein, A.: Quart. Rev. Surg. Obst. & Gynec. 14:196 (Dec.) 1957

®SENOKOT STANDARDIZED CONCENTRATE OF TOTAL ACTIVE PRINCIPLES OF CASSIA ACUTIFOLIA PODS, PURDUE FREDERICK

PF *The Purdue Frederick Company* DEDICATED TO PHYSICIAN AND PATIENT SINCE 1892
NEW YORK 14, N.Y. | TORONTO 1, ONTARIO

© Copyright 1959, The Purdue Frederick Company

(Continued from Page 272)

House, where they will be tape-recorded and converted to four 12-inch LP records for distribution, in two days' time.

* * *

The Department of Health, Education and Welfare is concerned over the continued supply of well-trained Doctors of Medicine for the anticipated increased need in the not too distant future. Surgeon General Leroy E. Burney, of the U. S. Public Health Service announced the consideration of the subject, and the names of a committee appointed to make a survey, with suggestions of course of procedure. The Committee: Frank Bane, former executive head of Council of State Governments, is chairman. There are twenty-one places on committee, with two still to be filled.

Representing medical education on the group are Deans Vernon W. Lippard (Yale), John McK. Mitchell (Penn), Morris Thompson (Kirksville Osteopathic) and Clayton G. Loosli (USC); Ward Darley, M.D., Association of American Medical Colleges; Edward L. Turner, M.D., AMA Council on Medical Education and Hospitals, and I. S. Ravdin, M.D., (Penn).

Other members are Edwin L. Crosby, M.D., American Hospital Association.; Miss Marion W. Sheahan, National League for Nursing; Harold Hillenbrand, D.D.S., American Dental Association; Harold L. Enarson, Western Interstate Commission for Higher Education; Emory W. Morris, Ph.D., W. K. Kellogg Foundation; Douglas E. H. Williams, Dunbar Community Association; Julian P. Price, M.D., AMA trustee, Florence, S. C.; Very Rev. Robert J. Slavin, Providence College; Fred C. Cole, Tulane University; Robert C. Anderson, Southern Regional Education Board, and Charles E. Smith, M.D., dean, University of California School of Public Health.

They will be asked to find answers to the question, "How can the nation be supplied with adequate numbers of well-qualified physicians over the next decade?" Surgeon-General Burney says group might make its approach as follows: (1) Appraise all existing data and plans on medical manpower; (2) set up areas of agreement; (3) establish manpower goals over next ten or twenty years; (4) recommend actions to be taken by government, industry, institutions and others toward reaching goals; (5) delineate role that should be taken by Public Health Service.

* * *

Wayne State University's College of Medicine has received a gift of $30,000 from the National Foundation of Rochester (Michigan) to establish the William H. McGregor professorship in medicine.

The purpose of the gift is to make it possible for the College of Medicine to attract a distinguished scholar and outstanding teacher to its faculty.

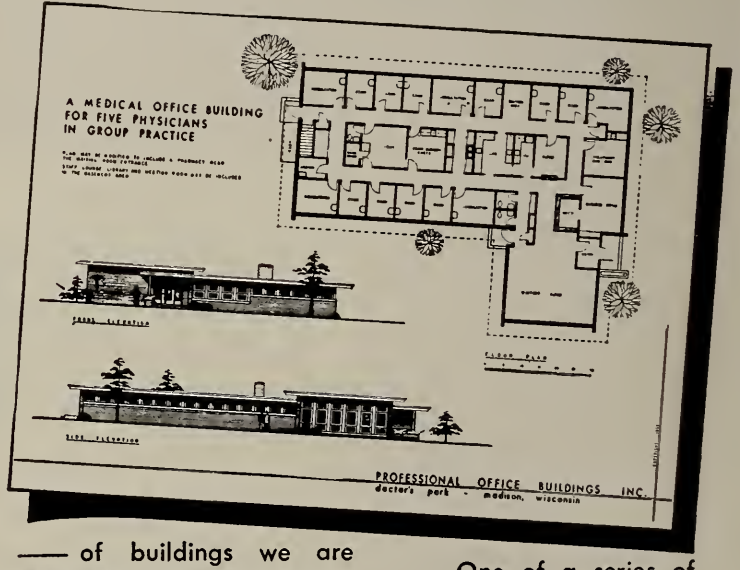
University officials expressed hope that similar endowments might be obtained for other academic areas to attract top grade teaching talent.

(Continued on Page 276)

If You are Planning a New Office Building

A card or letter will bring you a complimentary copy of our newly published 32-page catalog, *Medical and Dental Office Buildings.*

Illustrates:
- Floor Plans
- Exteriors
- Typical Interiors
- Profession-Proven Specifications
- Prices



—— of buildings we are prepared to construct for you anywhere in the Midwest.

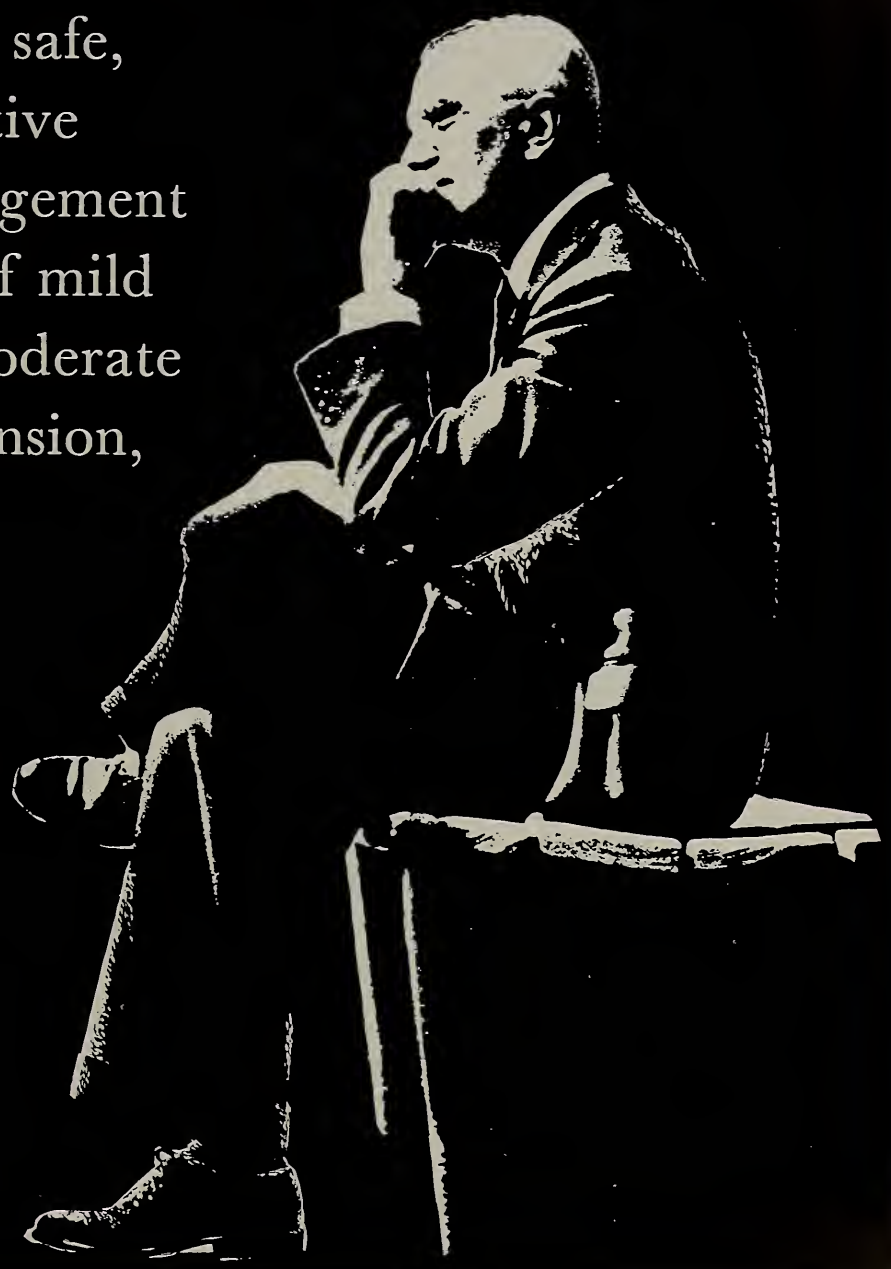
One of a series of expertly designed medical offices that can be constructed for you at a price much lower than you think.

Professional Office Buildings, Inc.

"The pioneers in professional designing and building."

DOCTOR'S PARK MADISON, WISCONSIN ALpine 6-3166, CEdar 3-0412

Now with Cryptenamine... for safe, effective management of mild to moderate hypertension,



℞ Veratrite®

Prescribed with confidence 8,863,769 times Veratrite continues to be the antihypertensive of choice for treating geriatric patients.

Veratrite effectively reduces blood pressure through action on the sympathetic nervous system, without detriment to the cardiac output.

Each VERATRITE tabule contains:

Cryptenamine (tannates)	40 C.S.R.* Units
Sodium nitrite	1 gr.
Phenobarbital	¼ gr.

*Carotid Sinus Reflex

IRWIN, NEISLER & CO. • DECATUR, ILLINOIS

Neisler

(Continued from Page 274)

William H. McGregor was the founder of the National Twist Drill and Tool Company, now of Rochester, in 1903. Mr. McGregor served several terms as Wayne County Clerk and was president of the Detroit Board of Education in 1898. He was instrumental in the planning and construction of old Central High School, now Wayne State's "Old Main" building. His work on the board's personnel committee during 1895 to 1896 resulted in personnel policies that are the basis for many of the policies and procedures used today.

The National Foundation of Rochester was formed by a nephew, Howard McGregor, Sr., former president of National Twist Drill and Tool Company, and a grand-nephew, Howard McGregor, Jr., now president of the company.

* * *

University Hospital Not Under Money Shortage.—Doctors throughout Michigan have been assured that their patients could continue to enter the University of Michigan Hospital despite the financial crisis affecting the University. A. C. Kerlikowske, M.D., hospital director, said the clinical activities of University Hospital are self-supporting. The thousand-bed institution meets its payrolls and operating expenses entirely from patient fees.

This method of financing, decided upon many years ago, is specifically aimed at protecting patients from the vagaries of state payments. This method of financing is somewhat unique among major university medical centers. It has given some knotty administrative problems in years past. Considering the present crisis facing the University, a similar setback affecting the hospital could have created havoc for patients and personnel.

* * *

John W. Rebuck, M.D., Ph.D., Detroit, is the new president-elect of the Michigan Pathological Society. Dr. Rebuck was elected at the annual state meeting of the society in Ann Arbor. Albert De Groat, M.D., director of the Pathology Department at Herman Kiefer Hospital, is president of the society for 1959. Viola Brekke, M.D., pathologist for Highland Park General Hospital, remains in her capacity of secretary-treasurer.

Dr. Rebuck, who directs the Hematology Division of the Department of Pathology at Henry Ford Hospital, is also executive secretary of the American Hematology Society and president of the Reticulo-Endothelial Association. A graduate of the University of Minnesota, he has been very active in research in the field of Hematology and electron microscopy. His "skin-window" techniques has enabled pathologists to study the reaction of the body to numerous stimuli. He has conducted several workshops on hematological methods for the American Society of Clinical Pathologists.

* * *

Essay Contest.—The attention of physician-medical writers is called to the Mississippi Valley Medical Society Annual Essay Contest. Any subject of general medical or surgical interest including medical economics and education may be submitted providing the paper is

(Continued on Page 279)

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

(Continued from Page 276)

unpublished and is of interest and applicable value to general parctitioners of medicine. Contributions are accepted only from physicians who are members of the AMA and who are residents and citizens of the United States. Manuscripts must not exceed 5000 words and be submitted in 5 complete copies, in manuscript style. The winning essay receives a cash prize of $100.00, a gold medal, and a certificate, also an invitation to address the annual meeting of the Mississippi Valley Medical Society. The Society may also award certificates of merit to physicians whose essays rate second and third best. Essays must be in the office of the MVMS Secretary not later than May 1, 1959. Further details may be secured from Harold Swanberg, M.D., Secretary MVMS, 209-224 W.C.U. Building, Quincy, Illinois.

* * *

The Annual Clinical Conference of the Chicago Medical Society will be held at the Palmer House, March 2, 3, 4 and 5, 1959.

A faculty of the outstanding speakers will present thirty-three half-hour lectures on subjects of interest to the general practitioner and the specialist. Panels on timely topics, a clinical-pathologic conference, and medical color telecasts will be presented. Teaching demonstration and instructional courses will be presented to small groups to encourage a close relation between the instructor and the physician. Scientific and technical exhibits have been carefully selected.

The instruction courses will be an innovation of the Conference. The four courses cover "Problems in Surgery" to be held from 9 to 10 A. M. each day; "Problems in Medicine" which will be held daily from 11 to 12 o'clock noon; "Problems in Obstetrics and Gynecology" to be held daily between 1:30 and 2:30 P. M.; and "Problems in Allergy" which will be held between 4 and 5 P. M. daily. The instruction courses will be limited to twenty physicians per class and registration must be made in advance. The fee for each course is $5.00.

* * *

Mass Casualty Care.—U. S. Army Medical Service supply officers, on December 30, 1958, demonstrated an emergency medical packet for use in a mass casualty situation to representatives of the Office of the Assistant Secretary of Defense (Health and Medical), the Navy's Bureau of Medicine and Surgery, and the Air Force Surgeon General.

Mass casualty situations occur whenever the number of persons injured is out of proportion to the medical resources available. The problems of mass casualty care are thus not confined to nuclear warfare, but can result from fires, floods, hurricanes, and other civil disasters.

The new medical packet—called Phase I Emergency Medical Treatment Unit—is designed to meet conditions immediately following a military disaster. It has been assumed that during this period no direct professional medical help may be expected, and casualties will either treat themselves or be cared for by other nonmedical personnel. Containing 23 items, the emergency



FOR IRON DEFICIENCY ANEMIAS
THE ORIGINAL HEMATONIC
WITH "INSURED IRON"

GLOBOTRIN®
patch

- insured for therapeutic effect by inclusion of vitamin and enzyme metabolites
- insured against side effects by better tolerated ferrous lactate and methylcellulose to maintain "bowel equilibrium"
- particularly valuable for pregnant and geriatric patients
- easy to take — in small, thinly coated tablets

EACH RED, COATED TABLET CONTAINS:

Ferrous lactate (supplying 37 mg. elemental iron)	195 mg. (3 gr.)
Vitamin B_{12} crystalline with intrinsic factor concentrate	0.5 U.S.P. unit*
Thiamine hydrochloride	2.5 mg.
Ascorbic acid	50 mg.
Betaine hydrochloride	60 mg.
Methylcellulose	32.5 mg.

*Potency established before formulation.

Supplied in bottles of 60 tablets.

patch THE E. L. PATCH COMPANY
Stoneham, Massachusetts

70 YEARS OF SERVICE TO THE MEDICAL PROFESSION

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

packet will provide medical material for treatment of approximately 100 casualties for about 72 hours.

This packet is, however, designed for much more than first aid. The items included have been carefully selected, and training in their use will be carried out by all three services.

* * *



Henry L. Bockus, M.D., Philadelphia, who delivered the Biddle Lecture at the 1958 Annual Session, is shown accepting the honorary scroll from MSMS President George W. Slagle, M.D., on October 2, 1958.

* * *

Max K. Newman, M.D., addressed the Hamilton, Ontario, General Hospital and the Medical Society recently on the topic "Management of Muscular Dystrophy and Associated Myogenic Diseases."

* * *

The American College of Chest Physicians will present its 12th Annual Postgraduate Course on Diseases of the Chest, March 30-April 3, 1959, at the Sheraton Hotel in Philadelphia. For program, write the College at 112 East Chestnut St., Chicago 11.

* * *

The Staff of Mayo Clinic and the Faculty of Mayo Foundation for Medical Education and Research will present their annual Clinical Reviews April 13-14-15. Discussed will be problems of current interest in general medicine and surgery. Up to twenty-one hours of Category I credit may be obtained by AAGP members who attend. No fees. For program, write Clinical Reviews Committee, Mayo Clinic, Rochester, Minnesota.

* * *

Howard P. Doub, M.D., Detroit, was elected president of the Southeastern Michigan Division of the American Cancer Society at its annual meeting in the David Whitney House (Wayne County Medical Society headquarters), succeeding James E. Lofstrom, M.D., also of Detroit. Elected to the Board were Drs. John L. Barrett, Royal Oak, and R. L. Mainwaring, Dearborn.

* * *

"A Happy Solution to the Problem of Alcoholism" is the title of a factorial and most interesting and informative brochure recently published by the Committee on

(Continued on Page 282)

Say you saw it in the Journal of the Michigan State Medical Society

MOTOR CARS...

are among the finest

products of MICHIGAN *industry...*

just as quality PHARMACEUTICALS

are the constant product of

MARION LABORATORIES

Marion's Oyster Shell, In Four Combinations with Vitamins and Iron

- No Leg Cramps
  - More Ionized Blood Calcium
    - Fewer Secondary Anemia Problems
  - Better Tolerated Iron Therapy
- Economical Medication

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

MARION

LABORATORIES, Inc.

2910 Grand Ave. • Kansas City, Missouri

*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

(Continued from Page 280)

Alcoholism of the Genesee County Medical Society (Flint, Michigan). The subtitles of this booklet are "The Practical Approach"; "Examine Your Own Behavior"; some "Do Nots" and "What to Do."

The Genesee County Medical Society sponsors regular group therapy meetings, held at the Flint hospitals to which the alcoholic, his relatives and friends always are welcome to attend.

* * *

"**Patterns of Disease**" for October, 1958, was dedicated to "How Healthy is the American Doctor?".

This special report on the doctor's health had subtitles: (1) "Are Physicians Careless of Their Health?"; (2) "Are Physicians as Healthy as Other Men Under Pressure?"; (3) "To What Hazard Are Physicians Particularly Exposed?"

Every physician should read this particular number of *Patterns of Disease*, published by Parke, Davis & Company, Detroit 32, Michigan.

* * *

Scholarships to the 1959 Midwest Institute of Alcohol Studies, June 21-26 at Kalamazoo, and the Yale Summer School of Alcoholic Studies, June 28-July 23, 1959, have been made available by the Michigan State Board of Alcoholism for professional people interested in gaining a better knowledge of alcoholism, and include room, meals, and tuition at both schools. For additional information write Ralph W. Daniel, State Board of Alcoholism, 230 North Grand Avenue, Lansing, before March 15.

* * *



WM. D. ROBINSON, M.D.

Appointment of William D. Robinson, M.D., a member of the University of Michigan Medical School faculty since 1944, as chairman of the Department of Internal Medicine recently was announced. Dr. Robinson succeeds Cyrus C. Sturgis, M.D., who resigned as Chairman to devote full time to the practice of medicine.

Dr. Robinson is a native of New York State, a graduate of Albion, Michigan, high school, with a Bachelor of Arts from Albion College (1931) and an M.D. from the University of Michigan Medical School (1934).

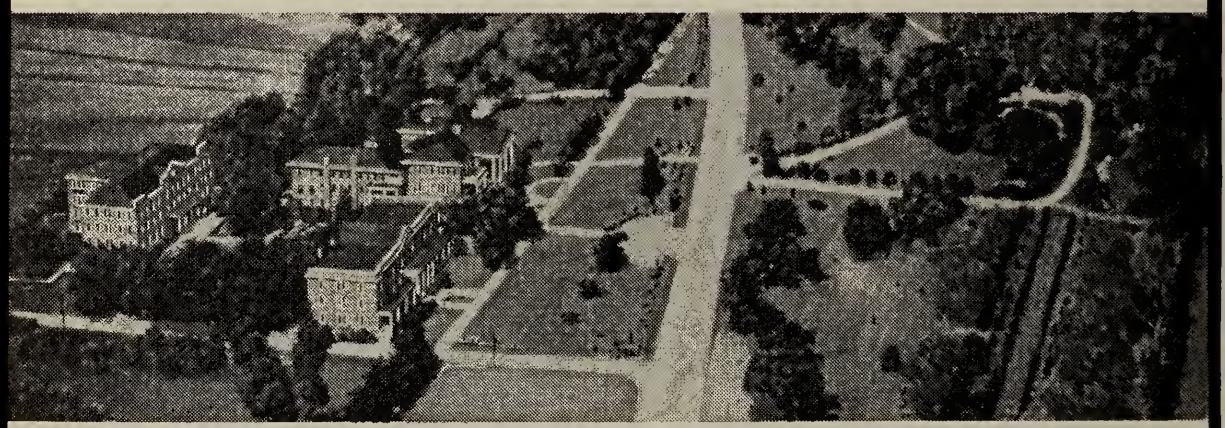
* * *

The United Cerebral Palsy Association of Michigan announces scholarships available during 1959 in the field of cerebral palsy, available to citizens of the United States at (a) the Columbia University College of Physicians and Surgeons, March 2-20, 1959, and (b) the Cook County Illinois Graduate School of Medicine, June 15-26, 1959. For information or application blanks, write the Association at 206 Hollister Bldg., Lansing 8.

(Continued on Page 286)

Nursing Care for Elders In The Deep South

Green Acres
INC.
MILLEDGEVILLE, GA.



Owned by Doctors and operated by a registered nurse in a beautifully landscaped 20 acre estate in the mild climate of Middle Georgia. All buildings housing guests sprinkled. *Rates do not include medical care, medication, personal laundry or other extras.

Mrs. Sue H. Baldwin, R. N.
Superintendent

*Monthly Rates } Camellia Court from $150
Magnolia Hall from $210

The South's Finest Health Resort for Elders

In the Treatment of Rheumatic Disorders Greater stability of maintenance dosage minimizes risks of hormonal imbalance

In Sterazolidin, the anti-inflammatory actions of prednisone and Butazolidin* are combined to permit lower effective dosage of each. Clinical experience has indicated that patients can be well maintained on this combination over prolonged periods with relatively low, stable dosage levels of each component, thus minimizing the problems arising from excessively high doses of corticosteroids. Other side effects have also been gratifyingly few. Antacid and spasmolytic components are contained in Sterazolidin capsules for the benefit of patients with gastric sensitivity.

Sterazolidin®: Each capsule contains prednisone 1.25 mg.; phenylbutazone 50 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

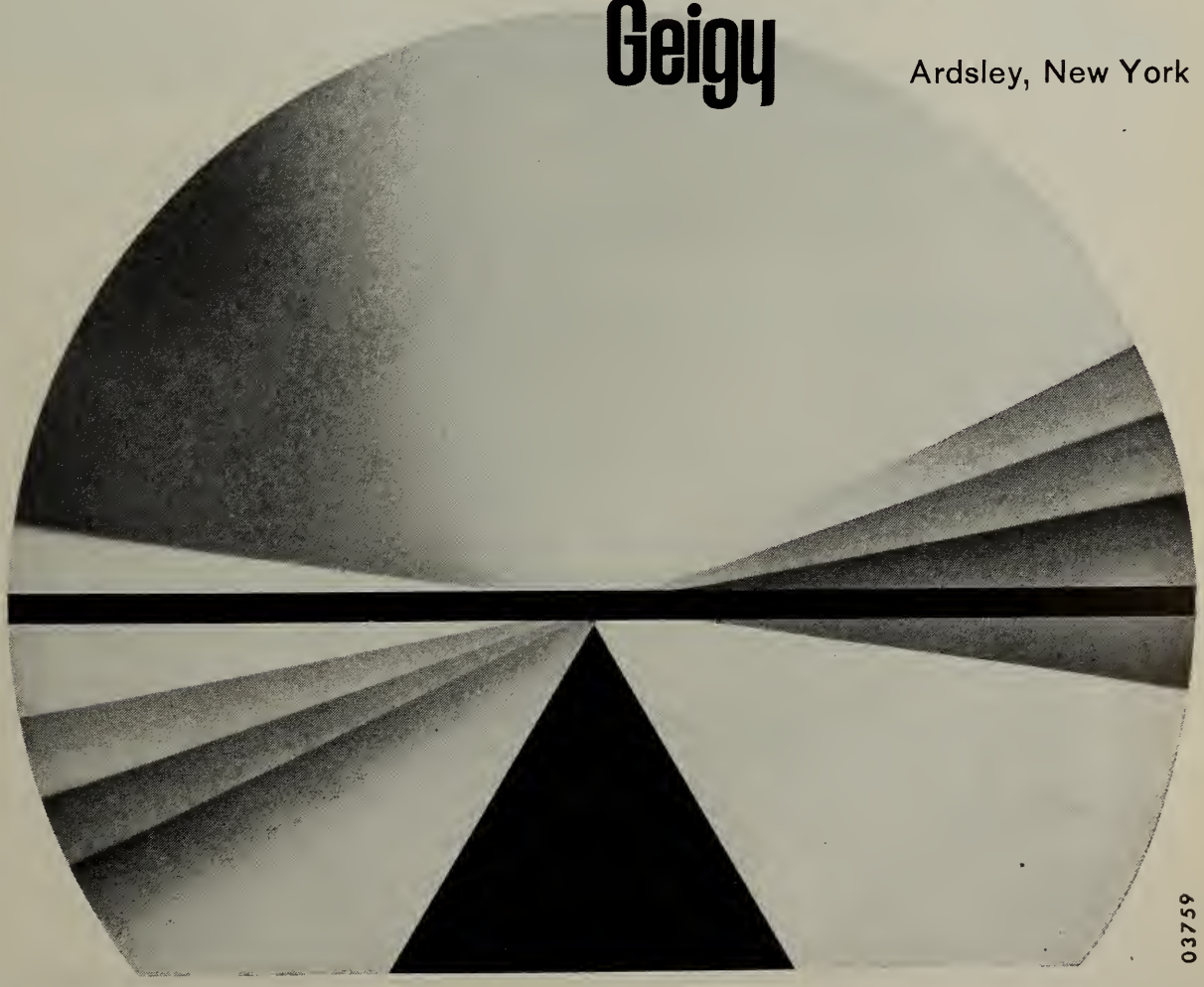
Detailed information available on request.

*Geigy's trademark for phenylbutazone—Reg. U. S. Pat. Off.

new **Sterazolidin®** Capsules

prednisone-phenylbutazone, Geigy

Geigy Ardsley, New York



03759

To Members of the Michigan State Medical Society

United States Savings Bonds more than ever before are worthy of your consideration as a savings device, as an investment, as gifts!

Held to maturity—only eight years 11 months for Series E and 10 years for series H—the return is equivalent to 3¼ per cent compounded semi-annually. Interest is now appreciably higher during the early years than on earlier issues.

You are permitted to buy up to $10,000 maturity value of each series yearly in your own name, and a similar amount for other members of your family through co-ownership.

Series E Bonds, since they are an appreciation type investment, permit postponement of income taxes on interest until redeemed—making them ideal for building or supplementing a retirement income fund.

Both E and H Bonds make ideal gifts—for family, friends, employees. What can be more welcome than a gift that keeps on giving as do Savings Bonds?

Effective December 1, 1958, proceeds of maturing Series F and G Savings Bonds may be applied to the purchase of Series E and H Bonds without regard to the annual limitation of $10,000 maturity value for each series. This privilege applies not only to individuals and personal trust estates, but to guardianship and similar estates, partnerships, corporations and organizations, such as fraternal, civic, patriotic, religious and veterans. If you are affiliated with one or more of these groups which owns F and G Bonds we will greatly appreciate it if you will call this reinvestment privilege to the attention of those responsible for investing funds.

All of us cherish our individual rights as Americans. But to enjoy these rights to the fullest we must have a World at Peace. And Peace costs money. When you buy U. S. Savings Bonds, you will strengthen America's Peace Power.

Say you saw it in the Journal of the Michigan State Medical Society



Lowers blood pressure — maintains mental alertness

calms the patient under stress

Rautensin provides a smooth, gradual and sustained reduction of blood pressure without sudden rebounds or abrupt declines.[1] Rautensin's tranquilizing properties calm the tense and anxious hypertensive without impairing alertness, without producing excessive lethargy or drowsiness.

The risk of Rauwolfia-induced depression is markedly reduced since the alseroxylon fraction alone is used.[2] Even on long-term administration side actions "...are either completely absent or so mild as to be inconsequential."[3]

Rautensin®

Each tablet contains 2 mg. of the purified alseroxylon complex of Rauwolfia serpentina

1. Wright, W. T., Jr.; Pokorny, C., and Foster, T. L.: Kansas M. Soc. *57*:410, 1956. 2. Gilchrist, A. R.: Brit. M. J. *2*:1011 (Nov. 3), 1956. 3. Terman, L. A.: Illinois M. J. *3*:67, 1957.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

(Continued from Page 282)

Seventy-four Per Cent of M.D.'s Scan All Their Mail. —*Advertising Aids* (December 15, 1958) reports a poll made by Medical Advertising Service of 1,508 physicians which shows, that 50 per cent reported they open their own mail, while the remaining 50 per cent let their nurses and secretaries do this job. Of assistants who opened the doctors' mail, 50 per cent pass all the mail to the doctors—which means nearly 74 per cent of the doctors in this survey at least look at all of the mail.

One of the key questions asked: "Of the direct mail you receive, what percentage do you feel is of value to you?".

Here are the answers:

- 138 answered under 5 per cent is of value
- 563 answered 5 to 20 per cent
- 297 answered 20 to 40 per cent
- 251 answered 40 to 60 per cent
- 96 answered 60 to 80 per cent
- 73 answered more than 80 per cent
- 90 failed to answer the question.

Of the 1,508 M.D.'s, only 202 returned critical comment—with ninety noting there is too much mail.

* * *

Wayne State College of Medicine enrollment has increased from 274 to 319. The overall enrollment of all medical colleges is now 20,430.

* * *

The American Trudeau Society (Medical Section of the National Tuberculosis Association) will feature a symposium on smoking and lung cancer and another on pulmonary emphysema at the annual meeting to be held in Chicago, May 25-28, at the Palmer House. For program, write the Association at 1790 Broadway, New York 19.

* * *

Jerome W. Conn, M.D., Ann Arbor, recently presented the annual Shannon Lectures in Medicine, sponsored by the Shannon West Texas Memorial Hospital, San Angelo, Texas. Doctor Conn gave four lectures on the general subject of Endocrinology and Metabolism.

* * *

Frederick A. Coller, M.D., of Ann Arbor, presented the annual Dallas E. Phemister Lecture recently at the University of Chicago on the topic "Science and Surgery."

* * *

Laurence F. Segar, M.D., Detroit, has been reappointed Governor for the State of Michigan of the American Diabetes Association for a three-year term ending in June, 1961.

* * *

The Chippewa-Mackinac County Medical Society recently presented the Sault Sainte Marie Crippled Children's Program with a check for $1,150.00. For some years, the medical society has given funds to the Sault Ste. Marie Board of Education for use in the Malcolm School orthopedic room crippled children's program.

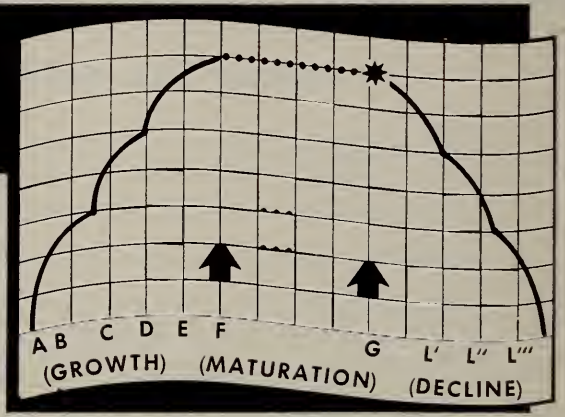
* * *

Postgraduate Conferences in Ophthalmology and in Otolaryngology will be held at the University of Michi-

(Continued on Page 288)

...to postpone the "G" point*...

℞ ..... Geritag



For patients over 40, The G POINT (point of declination in life) can be postponed!

Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

Write for Latest Technical Bulletins.

Each Magenta Soft Gelatin Capsule contains:

Methyltestosterane	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estradial	0.01 mg.	Ribaflavin	2 mg.
Ferraus Sulfate	50 mg.	Pyridaxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Malybdenum	0.5 mg.	Iodine	0.15 mg.
Cabalt	0.1 mg.	Patassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methianine	20 mg.
Vitamin E	1 I.U.	Inosital	20 mg.
Cal. Pantothenate	3 mg.		

Also available as injectable.

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

The Medicinal WINE Par Excellence is



SHERRY



Both dry and sweet varieties of Sherry serve as valuable tonics, stomachics and sedatives. The jaded appetite of the aged, the convalescent or the anorexic patient will often respond to a "drop" of Sherry taken as an aperitif.

The chronic invalid, the oldster, the arteriosclerotic and hypertensive patient—all can benefit from its euphoric effect, its ability to relieve tension, reduce apprehension and induce a glowing sense of well-being.

The dry variety of Sherry is more often used as a vehicle for medicinal ingredients than any other wine because of its general availability, its appropriate alcohol content, its uniformity and stability.

Many relatively insoluble substances can be maintained in stable solution by the buffering action of natural wine. Moreover, the aromatic organic esters normally present in wine provide a pleasant and inexpensive flavoring which makes it unnecessary to add costly, foreign or synthetic extracts.

An extensive bibliography is now available showing the important role of wine in various phases of medical practice. Just write for your copy of "Uses of Wine in Medical Practice." Wine Advisory Board, 717 Market Street, San Francisco 3, California.



(Continued from Page 286)

gan Medical Center next spring. The Ophthalmology Conference will be held in the Rackham Graduate School Building, April 20-21-22, conducted by F. Bruce Fralick, M.D., and staff. The Otolaryngology Conference will be held at the University Hospital, April 16-17-18 under the direction of James H. Maxwell, M.D., and staff. For program and full details, write John M. Sheldon, M.D., University Hospital, Ann Arbor.

* * *

Ruth E. Wagner, M.D., Royal Oak, was recently honored by the American Medical Women's Association as Michigan's "Medical Woman of the Year."

Congratulations, Doctor Wagner!

* * *

Wm. G. Gamble, Jr., M.D., Bay City, and **Wilfred J. Rowell, M.D.,** Alpena, recently were reappointed by Governor Williams to the Michigan State Sanitorium Commission.

* * *

Edgar E. Martmer, M.D., Detroit, was quoted in the *AMA News* of December 29 in connection with his presentation, as AMA representative, to the Washington Conference on Poliomyelitis Experience During 1958, a meeting called by Public Health Service General Leroy E. Burney.

"With 72 million Americans vaccinated with at least one shot," stated Doctor Martmer, "this has been one of the most successful health campaigns of recent years. But now we need to finish the job."

Those attending the Conference agreed that the point has been reached in most communities at which "Face-to-Face" campaigns will be necessary to reach persons who have not responded to polio vaccination programs.

* * *

Social Security Tax Increased.—Since January 1, 1959, physicians have been required to pay increased Social Security taxes on wages of employes, including domestic help. The new rate is 2.5 per cent as the employer's share and 2.5 per cent as the employes.

The new tax boost applies to any payment on or after January 1—even though wages may have been earned earlier. The tax starts on any domestic worker to whom a physician pays $50.00 or more in a calendar quarter.

The tax base had been increased from $4,200 to $4,800. The new tax is expected to increase federal tax collections by $1.1 billion, about half of which will come from employers. This means a tax increase of $25.50 per employer and $25.50 per employe on gross earnings of $4,800.

* * *

Health Programs Cost $3 Billion Dollars.—The Federal Government's various Health Programs will cost taxpayers a record-breaking 2.9 billion dollars during the fiscal year 1959. The twenty-two separate agencies and departments are today spending 62 per cent more than they did five years ago. The lion's share is earmarked for the department of Health, Education and Welfare whose budget has climbed from 849 million last year to more than $1.1 billion in the fiscal year 1959.

Another lion is the Veterans Administration with 843 million, a substantial slice of this amount being spent on in-patient care in the 173 VA hospitals which at present have a daily patient load of 101,063 and operate at 92 per cent of capacity. Much of the money is used to care for patients with non service-connected disability.

* * *

Laurence S. Fallis, M.D., Detroit, recently was elected as President of the Detroit Institute of Cancer Research: **Harry M. Nelson, M.D.,** Detroit, was elected Vice-President.

* * *

M.D. LOCATIONS

Through November 30, 1958

Placed by Michigan Health Council

William K. Hicks, M.D.	Battle Creek
Assisted by Michigan Health Council	
Allen D. Anneberg, M.D.	Pontiac
Robert J. Solomon, M.D.	Lincoln Park
Robert F. Thimming, M.D.	Lansing
James D. Hays, M.D.	Douglas
James W. Finn, M.D.	Utica
Richard A. Knecht, M.D.	Petoskey

* * *

Medicare Program Gets Expensive.—The Medicare Program cannot possibly remain within its 1959 budget of $72,000,000,000. The projection is that it will spend at least $110,000,000,000, and that Congress will be asked to come up with a deficiency appropriation. The benefit cutback, instituted in October, 1958, came altogether too late. In direct violation of the Program-stated purpose, these cutbacks forced dependents to use available military hospital facilities. "Free choice" was being nicely ignored.

* * *

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council
1958

November 2	"Diabetes" William L. Lowrie, M.D., Frank S. Perkin, M.D., Miss Mary M. Harrington, all of Detroit; and Mrs. Robert W. Woodruff, of Dearborn.
November 9	"Muscular Dystrophy" Alan Kowalski 1958 Poster Boy and his parents Mr. and Mrs. Edward Kowalski of Warren, Michigan, Max K. Newman, M.D., Gerald Frampton, and Paul J. Militello, all of Detroit.
November 16	"Careers in Nursing" Miss Norma Kirkconnel, Ann Arbor; Miss Amailia Krause, Dearborn; Joseph T. Melling, Lincoln Park; and Miss Martha Drage, Mrs. Margaret Gerard, Carole Hinze, Mary O'Dowd, and Eleanor Lane all of Detroit.
November 23	"Allergy" (Film—"Allergy")
November 30	"Radiology, Blood Pressure, Hearing" (Film—"World of Medicine Program No. 1")

PM says:
DAY BOOKS
APPOINTMENT BOOKS
CASE RECORDS
PATIENT'S ACCOUNT CARDS
INCOME AND EXPENSE LEDGERS
All Adapted to YOUR Needs by Experienced PM Managers
WRITE OR CALL FOR INFORMATION
PM • PROFESSIONAL • MANAGEMENT
Security Bank Building — Battle Creek
SAGINAW — GRAND RAPIDS — DETROIT
A COMPLETE BUSINESS SERVICE FOR THE MEDICAL PROFESSION
Affiliated Offices in Other Cities

Communications

QUARTERLY REPORT OF THE COUNCIL

December 31, 1958

To: Every Delegate to MSMS.

From: The Council of MSMS, D. Bruce Wiley, M.D., Chairman.

The 1958 House of Delegates instructed that quarterly reports be sent to House members informing them on the progress made in the continuing development of the Seal of Assurance Plan.

1. *Participation in the MSMS Seal of Assurance Plan.*—Since the report of the House of Delegates Auditing Committee on Seal of Assurance Participation, there has been a net gain of 146 Enrollment Authorization bringing the total number of participating physicians to 4,059.

2. *Councilor District Medical Care Insurance Committees.*—Prior to the organization of the separate District Committees, the chairmen were invited to two briefing meetings—October 29 and December 6. Informed on the background, purposes and responsibilities of their committees, the chairmen will hold organization meetings of their respective committees beginning in January.

3. *Michigan Relative Value Study.*—At its September meeting, The Council approved a general outline for the organization of a Michigan Relative Value Study. Subsequently, The Council appointed a Committee on Relative Value Study chaired by Luther R. Leader, M.D., Detroit. At the invitation of MSMS, two of the prime movers in the development of the California Relative Value Study—F. J. Cox, M.D., of San Francisco, and H. Dean Hoskins, M.D., of Oakland, California, addressed a special meeting of MSMS officers, representatives of specialty groups, and members of various committees, including chairmen of Councilor District Medical Care Insurance Committees.

This meeting on December 6, 1958, was primarily informational and provided an opportunity to learn more of the how and why of the California RVS.

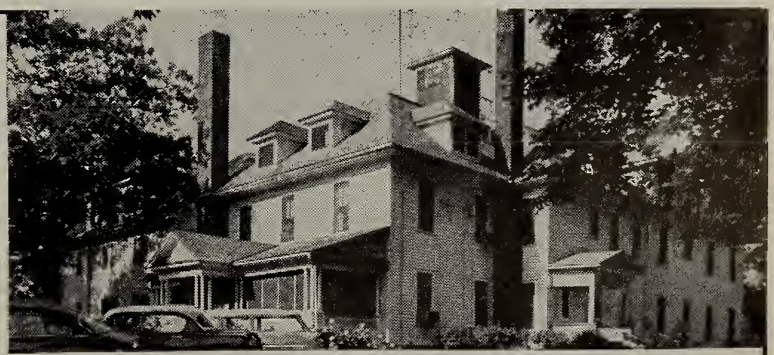
4. *Study of Alternative Methods of Payment to Physicians.*—The 1958 House of Delegates (Substitute Resolution No. 8) instructed the Medical Care Insurance Committee and MSMS Legal Counsel to explore alternative methods of paying physicians for services rendered subscribers of prepayment plans.

The Committee and Legal Counsel have agreed upon the method of study and are now developing the legal framework which will serve as a guide to the feasibility of plans presented for committee study. A report will be presented at the next session of the House of Delegates.

5. *M-75 Contracts for Other than Hourly-Rated Employees.*—The current M-75 contract is available only to persons in employment groups whose incomes are determinable through payroll records. In compliance with the MSMS Statement of Principles (Ref.: JMSMS, Nov., 1957, p. 1408, Item 6), additional contracts were required which would pertain (a) to those subscribers who were self-employed and (b) those who left employment groups through change of occupation or job loss. At its July meeting, The Council approved the principle that in the contracts for the above groups, the subscriber shall be required to certify to the physician the income of the principal contributor of family support. Subscribers would be urged to purchase the contract which most nearly reflected that income. The subscriber's identification card, however, would indicate that his income had not been certified by Michigan Medical Service.

The Council approved the necessary changes in contract wording; subsequently the State Insurance Com-

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

Malpractice Prophylaxis

OBSERVING CONFIDENTIAL RELATIONS

Specialized Service makes our doctor safer

THE MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office

George A. Triplett and Richard K. Wind Representatives

2405 West McNichols Road

Telephone University 2-8064

missioner approved the changes. The contracts may now be sold when ready.

6. *Method of Determining Income of Retirees.*— Under the M-75 contract, it is necessary to determine the income of retirees so that these subscribers can be issued contracts which reflect their incomes. From employer records, it is possible to determine the amount of pension or retirement fund income. To this must be added income from OASI (Social Security). Since the employer is not able to furnish records of individual OASI payments, it was necessary to develop a method of determining the monthly income from OASI. As finally approved by The Council, a median OASI payment was computed which is to be added to the subscriber's income from trust or pension funds. This will, then, indicate the income level into which the subscriber falls.

This first quarterly report to Delegates reviews activities since September 1, 1958. As in the past, the complete Proceedings of the House of Delegates will be printed in the January Number of the Journal of MSMS.

EDITOR'S NOTE.—The House of Delegates instructed the Council to transmit this quarterly report to its members. The Editor believes, however, it is of such interest that the whole membership should be informed. These reports will be published each quarter as they are made available.

Legal Opinion

County Medical Society

Dear Secretary:

I have your letter of November 24 on the problem of the possible liability of medical organizations for income taxes where the constitution and by-laws of the society do not definitely establish its non-profit status.

Insofar as your constitution and by-laws are concerned, assuming that you have substantially followed the forms prepared and suggested for county societies, I have no doubt that your Society is a non-profit organization of the type which qualifies for tax exemption.

The tax exempt status of any organization does not depend merely on the nature of the organization as set forth in its constitution and by-laws but is determinable by what it does in actual practice. If, for instance, an organization is on its face organized for purely charitable, educational or scientific purposes it may, nevertheless, engage in profit making activities which would subject it to the payment of income taxes. I have no reason to believe that your Society does engage in any such activities but, obviously, am in no position to determine definitely that such is or is not the case.

In short, to answer your specific question, I believe your constitution and by-laws to be entirely adequate in this area and I can see no reason why they should be amended because of any question as to tax status. If, however, your Society has any question as to its status from the standpoint of its actual activities and operations, I can only repeat that that is a matter for individual treatment by your own counsel.

To the extent that I may be able to offer any general advice, information, or assistance to your County Society's counsel, I shall be most happy to do so.

Sincerely yours,

LESTER P. DODD,
Legal Counsel, MSMS

Detroit, Michigan
November 26, 1958

Say you saw it in the Journal of the Michigan State Medical Society

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

LUMBAR DISC LESIONS Pathogenesis and Treatment of Low Back Pain and Sciatica. By J. R. Armstrong, M.D., M.Ch., F.R.C.S., Orthopaedic Surgeon to the Metropolitan Hospital, Orthopaedic Surgeon to Lambeth Hospital, Visiting Orthopaedic Surgeon to Manor House Hospital (Industrial Orthopaedic Society), Honorary Consulting Orthopadeic Surgeon to Royal Waterloo Hosptal for Children and Women, Late Visiting Orthopaedic Surgeon to the Ministry of Pensions Hospital, Stoke Mandeville, Late Orthopaedic Specialist, Royal Air Force Medical Service. Foreword by H. Osmond-Clarke, C.B.E., F.R.C.S., Orthopaedic Surgeon, London Hospital; Senior Visiting Surgeon, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry; Civilian Consultant in Orthopadeic Surgery to the Royal Air Force. Second Edition. Baltimore: The Williams and Wilkins Company, 1958. Price $12.00.

This is as neat and concise a treatise on low back pain as is generally available. The title is misleading for the whole realm of low back pain is discussed, although, as the common offender, lumbar disc lesions are chiefly presented.

Organized in classical manner as to historical review, anatomy, pathology, clinical picture, differential diagnosis, and treatment, the book covers the forest without obscuring the different varieties of trees.

In its detail it is of principal interest to the orthopaedist and neuro-surgeon, but its coverage of the field of differential diagnosis of low back pain renders it valuable to all those whose patients present these problems.

R.H.A.

TREATMENT OF BREAST TUMORS. By Robert S. Pollack, M.D., F.A.C.S., Clinical Instructor in Surgery, Stanford University School of Medicine; Clinical Instructor in Surgery (Oncology), University of California School of Medicine; Assistant Chief of Surgery, Mount Zion Hospital, San Francisco, California; Consulting Surgeon, Oakland Veterans Administation Hospital; Consulting Surgeon, Oakland Naval Hospital, Oakland, California. 47 plates; 16 text figures. Philadelphia: Lea & Febiger, 1958. Price, $6.00.

This monograph by Dr. Pollack is of interest to surgeons, general practitioners, and internists, in that it is a complete treatise bringing them the most up-to-date thoughts and present day thinking on the treatment of breast tumors. It presents a complete classification of the breast tumors, both benign and malignant, then goes into the management of the primary and secondary complicating factors, including long-term problems, such as pregnancies, opposite breasts, lymphadema, and recurrence. Surgical techniques are well described and illustrated with atlas-type drawings whenever surgery is considered. There is also a chapter that brings one up-to-



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola
SIGN OF GOOD TASTE

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

date with the most modern thinking on radiotherapy, discussion of the oral and parenteral administration of the hormones, and detailed management of the adrenalectomized and hypophysectomized patient.

This book well deserves to be in the library of every doctor doing general physical examinations on women patients.

J.M.H.

IDEALS IN MEDICINE. A Christian Approach to Medical Practice. Edited by Vincent Edmunds, M.D., M.R.C.P., and C. Gordon Scorer, M.B.E., M.D., F.R.C.S The Christian Medical Society, 127 South Wacker Drive, Chicago 6, Illinois. Price $3.00.

This is a small book by a group of contributors who for the most part are physicians. They are connected with religious work and some have been missionaries. From the Christian viewpoint they point out the differences between medical etiquette and ethics, the satisfactions of being a family doctor and his relationship to the patient, the relatives and his colleagues, the duties of a consultant, the problems of sex, contraception, incurable disease, treatment and research. They believe the one rule of practice is to put yourself in the patient's place. This is a book on ethics whereas most former books were of a legal nature.

H.E.A.

CLINICAL RADIOLOGY OF ACUTE ABDOMINAL DISORDERS. Bernard S. Epstein, M.D., Chief, Department of Radiology, The Long Island Jewish Hospital, New Hyde Park, New York; Associate Clinical Professor of Radiology, Albert Einstein College of Medicine, Yeshiva University, New York, New York. 406 Illustrations on 224 Figures. Philadelphia: Lea & Febiger, 1958. Price $15.00.

Despite the author's explanatory preface the title of this book continues to mislead the reader. This reviewer would suggest that the true matter therein be expressed in a title such as, "Clinical Radiology of Abdominal Disorders, Acute and Chronic."

The subject matter is covered very systematically and reasonably fully considering the tremendous number of situations with which he deals. Disorders concerning the newborn and during the first year of life are managed deftly and with a pleasant paucity of words. In fact, throughout, the absence of verbosity is refreshing. The section on intra-abdominal hernias is well presented as is the entire subject of neoplastic disease. A real deficiency exists in the chapter on gastritis when he fails to discuss the subjective and objective signs of hypertrophied rugae associated with anacidity.

The last quarter of the book detracts somewhat from the first three quarters in that Doctor Epstein seems to try to have something to say about an increasing number of minor or rare situations, merely in order to round out his total treatise. The mere mention of these subjects without descriptive radiographs removes such subjects from the realm of material for "clinical radiology."

In general it is a superb book for the student of radiology where material on many situations is condensed and beautifully illustrated. It might well serve as a manual for teaching of residents in radiology. It is not, however, sufficiently detailed to serve as a reference book for practicing radiologists and adds but little to the previous exhaustive works covering the many situations encountered within the abdomen.

S.P.B.

REHABILITATION MEDICINE. A Textbook on Physical Medicine and Rehabilitation. By Howard A. Rusk, M.D., Professor and Chairman of the Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York, N. Y., and thirty-six collaborators. With the editorial assistance of Eugene J. Taylor, A.M., St. Louis: The C. V. Mosby Company, 1958. Price, $12.00.

In the most rapidly developing field of medicine, Rehabilitation Medicine, there is a woeful lack of good and adequate texts for purposes of information as well as instruction. The editor and collaborators in this text now furnish the necessary information relative to the modus operandi and methods of rehabilitation medicine.

The book serves as a basic elementary textbook to give useful information as well as reference to physicians, whether they be in general practice or specialists in the field of Physical Medicine and Rehabilitation. The outline permits the family doctor to initiate the major medical rehabilitation measures obviating the future deterioration and increased disability because of the lack of understanding. Specific diseases are discussed such as paraplegic, hemiplegic, demyelinating diseases, and clinical problems in relation to General Physical Medicine and Rehabilitation.

The entire philosophy involved in the text is that all medical men, regardless of their general or specialist background should have sufficient understanding in the skills which are necessary for Rehabilitation Medicine procedures.

An excellent textbook, by an excellent group.

M.K.N.

THE CARE OF THE GERIATRIC PATIENT. Edited by E. V. Cowdry, Ph.D., Sc.D. (Hon.), Director of Wernse Cancer Research Laboratory, Washington University School of Medicine; formerly President of the Gerontological Society and of the Second International Gerontological Congress; Chairman of the Medical and Scientific Committee, American Society for the Aged, Inc. St. Louis: The C. V. Mosby Company, 1958. Price, $8.00.

The medical problems of 1900 would have placed most of the geriatric survivors of 1958 in their graves. A society that can now save human life bears the responsibility for the quality of the lives thus extended. The several distinguished contributors to the book shape up its main theme, aimed at the high calling of the doctor and his responses to the needs of the elderly.

There is a large gap between our new geriatric knowledge and its utilization. The greatest world tragedy is the old, useless, diseased, unwanted person. The geriatrician must actually like older people, extend sympathy and service, but the elderly patients themselves cannot stop all effort and blindly expect the best.

The older population is placed under certain social and psychological stresses by our fast-paced society. Forced retirement leads to frustration. Whether a patient reaches eighty or 962 years, his family physician must be alerted to genetic disorders, psychosomatic and asymptomatic diseases. A cancer may exist without symptoms. Early evaluation may prevent a cardiovascular disaster. With anticipated care, debility and disease are not inevitable. The greatest psychic aid comes from social and physical activities. Geriatric psychiatry is a new wide-open field.

With the correction of physiological inadequacies and the institution of good nursing care in a well-run hospital, the elderly patient can survive surgery with better prognosis than he can survive without it, considering the essential principles of individualization. The anesthesiologist must make himself acquainted with laboratory findings and realize that his patient is easily sedated, readily anesthetized, prone to overdosage, and that he responds well to muscle relaxants. The greatest danger in geriatric medication lies in too vigorous treatment and in side effects. If you do not believe in the worthwhileness of old age, stay out of geriatrics.

Nutritional and caloric requirements of fats, carbohydrates and proteins are amply presented, with special reference to vitamins and minerals. Elderly eating should be a pleasure, not a chore, with proper consideration of oral health and genetic evaluation. The reader will profit in reviewing the analyses of hospitalization, nursing homes and home care.

Special centers of the Howard Rusk flavor and the grass roots may both be employed in geriatric rehabilitation. The sheltered workshop is just emerging on the horizon with its share of geriatric triumphs. Geriatric training is now entering our medical school curricula. An excellent chapter reviews national, state and local programs, designed to aid the rising number of older people and to intensify assistance where most needed.

Our old friend, Dr. J. H. Sheldon of England, completes the book with his inspiring chapter entitled "Geriatrics Around The World." To know the great man and to be inspired by his writings, have become two of life's deep accomplishments.

The review of this book has not only served as reading pleasure, but has functioned as a basis of future positive geriatric endeavor.

C.H.R.

BOOKS RECEIVED

PHYSICIANS' DESK REFERENCE to Pharmaceutical Specialties and Biologicals In Five Sections. An arbitrary page numbering plan to facilitate the compilation of this reference book. J. Paul Folsom, General Manager; Henrietta Bull, Managing Editor; J. E. Van Hoven, Production Director; Robert C. Batterman, M.D., Editorial Consultant. Oradell, N. J.: Medical Economics, Inc., 1958.

ANNUAL REPORT of the Surgeon General, United States Army. Fiscal Year 1958. Office of the Surgeon General, Department of the Army, Washington, D. C.

HOW TO AVOID FINANCIAL TANGLES. By Kenneth C. Masteller. Great Barrington, Massachusetts; American Institute for Economic Research, 1958. Price, $1.00.



MARY POGUE SCHOOL, Inc.

Founded 1903. Complete facilities for training retarded and epileptic children educationally and socially. Pupils per teacher strictly limited. Excellent educational, physical and occupational therapy programs.

Varied group activities under competent direction on our spacious grounds of 28 acres. Selected movies.

Separate buildings for boys and girls, each with round-the-clock supervision of skilled personnel. Total enrollment 90.

G. H. Marquardt, M.D.
Medical Director

Barclay J. MacGregor
Registrar

26 GENEVA ROAD, WHEATON, ILLINOIS
(near Chicago)

Laboratory Examinations
Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street
Romeo, Michigan

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE: Allergy practice located in a midwestern city of 190,000; gross income $50,000 annually; physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

SPACE AVAILABLE in new medical building. Excellent opening for ENT or other specialist. City of 60,000. Reply Box 5, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE: ENT Office equipment and surgical instruments of deceased otolaryngologist. Write Barbara Cline, 704 S. College Ave., Mt. Pleasant, Michigan.

BOARD ELIGIBLE OBSTETRICIAN-GYNECOLOGIST—wants to associate with another obstetrician or group in Detroit, Wayne County, or Pontiac area. Write Box 6, 606 Townsend Street, Lansing, Michigan.

FOR SALE: Well-established medical practice in village of 1,500 and good farming area. Good hospitals within ten miles. Well-equipped office on ground floor. Large income for young doctor. Present owner retiring due to health and age. Low down payment and good terms. Call or write Guernsey, LaNoble Realty, 1516 E. Michigan Ave., Lansing. Phone: IV 2-1637; evenings IV 9-0814.

DETROIT ACTIVE GENERAL PRACTICE FOR SALE (or lease).—Annual gross income $40,000; price includes new clinic building and four fully equipped treatment rooms. Also included — x-ray, EKG, BMR, diathermy, photometer, autoclave, centrifuge, et cetera. Air conditioned throughout. Will introduce. Leaving for residency. Write Box 7, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE: Complete office x-ray equipment, consisting of one Continental Pioneer single tube fluoroscopic (Patterson Screen) and radiographic x-ray unit, pedestal control with 1/20 second electronic timer; fluoroscopic timer; rotating anode tube starter; fullwave general; full size hand tilt table vertical to 10 per cent Trendelenburg with motor-driven shutters; Standard speed bucky; floor railmounted tubestand; Dynamax 20 rotating anode tube and high tension cables; one hand-operated cassette changer (14″x17″); one fluoroscopic view box; 2 lead film boxes; holders; highspeed screens (14″x17″, 10″x12″, 8″x10″); assorted backboard film holders; cones; miscellaneous items and cabinets. Must be sold as a unit; will not sell as individual items. Price $3,500, cash. Telephone: Bay City, Michigan, TW-5-9700.

NEW LOCATIONS: Ideal locations now available for Clinics. Will build for sale or lease around Detroit and suburbs. Site, design, financing and building can be furnished by builder with many years of medical building experience. Dentists as tenants can be furnished for combination clinic. Klein & Blair, 15940 W. McNichols Road, Detroit 35, Michigan. Phone: VErmont 7-0733.

WANTED ASSOCIATE: Michigan growing General Practice. Fine community of 3,000, short drive from modern 80-bed hospital. Full hospital privileges can be expected, commensurate with training and ability. Easy driving distance from universities and metropolitan areas. Reply Box 4, 606 Townsend Street, Lansing 15, Michigan.

(Continued on Next Page)

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 MARCH, 1959 NUMBER 3

Contributors to This Issue



R. E. L. Berry, M.D.



F. A. Coller, M.D.



H. F. Falls, M.D.



Reed M. Nesbit, M.D.



J. M. Sheldon, M.D.

Table of Contents

Washtenaw County Medical Society
Frederick A. Coller, M.D., and *Richard A. Sinnott, Jr., M.D.* 363

Ventriculo-Venous Shunt Using the Holter Valve as a Treatment of Hydrocephalus
Kenneth W. Carrington, M.D. 373

Experience with Diverticulitis over a Ten-Year Period
B. C. Payne, M.D., and *James Beatty, M.D.* 377

The Physiology of Micturition
Reed M. Nesbit, M.D., and *Jack Lapides, M.D.* 384

Abuse of Single Whole Blood Transfusions
William Umiker, M.D., and *Paul Hodgson, M.D.* 389

An Evaluation of Medications Commonly Used in Asthma
John M. Sheldon, M.D., L. Dell Henry, M.D., and *James A. McLean, M.D.* 397

The Recognition and Correction of Water and Salt Deficits in Surgical Patients
Robert E. L. Berry, M.D. 403

Care of the Preschool Child's Eyes
Harold F. Falls, M.D. 412

Acute Appendicitis
J. L. Ponka, M.D., H. L. Shields, M.D., and *D. M. Evans, M.D.* 415

President's Message
Thanks, Jay! ... 417

Editorial:
Medical and Hospital Service in Washtenaw County 418
Hospital Costs Again ... 420
Report on Hospitals ... 421
New Dresses ... 422
Income Taxes ... 422
Coming Legislation ... 423

Michigan State Medical Society—Annual Session of the Council, January 30, 31, 1959 ... 424
Medical Meetings and Clinic Days ... 442
Michigan's Department of Health ... 448
In Memoriam ... 452
Communication ... 454
Legal Opinion ... 456
News Medical ... 458
The Doctor's Library ... 485

You and Your Business ... 308
Governor's Hospital Cost Survey ... 312
MSMS Members Like Group Life Insurance Plan ... 322
Medicolegal Forms ... 328
PR Report ... 335
Hippocrates and More!
Robert D. Swanson, D.D ... 342
AMA Washington Letter ... 350
Editorial Comment ... 352

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 MARCH, 1959 NUMBER 3

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
C. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage; Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
R. L. Novy, M.D., Detroit.....1960
W. D. Barrett, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

W. W. Babcock, M.D., Detroit.....1959
E. F. Sladek, M.D., Traverse City.....1959
O. J. Johnson, M.D., Bay City.....1959
L. R. Leader, M.D., Detroit.....1960
Wm. Bromme, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit

You and Your Business

GROUND BREAKING—APRIL 1, 1959

Groundbreaking ceremonies for the new MSMS Headquarters will take place on April 1, 1959, at 4:30 p.m. The first shovelful of earth will be turned by MSMS officers as members of The MSMS Council and Woman's Auxiliary observe.

The new building site is located at the northwest corner of M-78 and Abbott Road, East Lansing. Photographs of the groundbreaking ceremony will be published in the May issue of THE JOURNAL.

WHITE HOUSE CONFERENCE

The White House Conference on Children and Youth will be held in Washington, D. C., March 27-April 2, 1960. The State's preparations are being carried out principally through eleven regional White House Conference Committees. The regional study activities will provide the preparation and information for the Regional White House Citizen Workshops to take place in Michigan April and May, 1959. The findings and recommendations of the Regional Citizen Workshops will become the most important part of the Michigan report to the White House Conference in Washington and will be compiled in the autumn of 1959.

Since preparations now are under way in Michigan for the 1960 White House Conference on Children and Youth, it is vital that many interested and knowledgable M.D.'s take part in the varied study projects being carried out by Regional and County White House Conference Committees in their part of the State.

Medicine's voice in this White House Conference is most important—and must be heard.

SIX OPHTHALMOLOGY RESIDENCY FELLOWSHIPS ANNOUNCED

Six additional Fellowships for Residents in Ophthalmology, to be awarded July 1, 1959, have been announced by the Guild of Prescription Opticians of America, Inc., through its president, E. S. Hirsch, Miami, Florida. Applications for these fellowships must be received by May 15, 1959.

Each fellowship is for a total of $1,800, payable in monthly stipends over the period of a three-year residency. The grants are limited to residencies at approved institutions where full three-year residencies are offered, but residencies which begin anytime during the calendar year are eligible. Application forms and covering information are available by writing to Fellowships, Guild of Prescription Opticians of America, Inc., 110 East 23rd Street, New York 10, N. Y.

The six new fellowships being granted represent one for each of the six areas into which the United States and Canada have been divided upon the basis of an equal number of eligible residencies in each area. The selection of the resident fellow is made by a committee of two ophthalmologists in each area.

Awarding six fellowships in 1956, five in 1957 and another six in 1958, the Guild Fellowship Foundation now sends a monthly stipend to seventeen resident eye-physicians. The 1959 awards will replace the six fellowships awarded in 1956, and each year there will be six additional awards to replace the six completing their residencies, a yearly total of eighteen being maintained.

CONGRESS ON OCCUPATIONAL HEALTH

The 13th International Congress on Occupational Health will be held in New York City at the Waldorf-Astoria Hotel, July 25-29, 1960. The Scientific Program Committee invites submission of papers for presentation at the Congress. The program will be devoted to the discussion of the following aspects of occupational health:

1. Administrative Practices
2. Medical Practices
3. Surgical Practices
4. Education and Training
5. Social and Legal Aspects
6. Environmental Hygiene
7. Influence of Environmental Factors in Health
8. Work Physiology and Psychology
9. Specific Industries
10. General

The official languages of the Congress will be English, French, German, and Spanish. However, papers may be read at the Congress in the language desired by the author. For additional information, write the American Medical Association, 535 North Dearborn St., Chicago 10, Illinois.

INTERNATIONAL ACADEMY OF PROCTOLOGY

The eleventh annual convention of the International Academy of Proctology will be at the Plaza, New York, New York, April 5 through 9, 1959. The international, national, and local program committees are planning an unusual seminar on practical techniques for office and hospital. There will be special emphasis on anal and rectal panel

(Continued on Page 310)



1956-57, New York, Medical Encyclopedia, Inc., 1957, p. 63. **58.** McCloud, L. C.; Shidal, W., and Mulligan, J. L.: Clinical observations on infections treated with a combination of tetracycline and oleandomycin, to be published. **59.** McFadden, H. W., and Schelhart, D.: Comparison of the *in vivo* sensitivity of micrococci to oleandomycin, tetracycline and a combination of oleandomycin and tetracycline. Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, pp. 514-519. **60.** Manara, G., and Gasparetto, A.: The first clinical experience with water-soluble Signemycin, University of Padua, Minerva chirurgica *13*:535 (May 15) 1958. **61.** Medina Morales, F.: The combination of tetracycline-oleandomycin (Signemycin) in the postoperative treatment of three cases of pulmonary resection, Medicina, Mex. *800*:347, 1958. **62.** Mehra, B. K.: Combating the resistant staphylococci, Current Med. Pract. *1*:326-328 (May) 1957. **63.** Mendiola, R.; Naranjo, R., and Briseno, F.: New contributions to the treatment of tuberculosis, Medicina, Mex. *37*:269 (June 25) 1957. **64.** Mendoza Diez, J.: Treatment of osteomyelitis with Signemycin, Thesis, Universidad Nacional Mayor de San Marcos, Facultad de Medicina, Lima, Peru, 1957. **65.** Moggian, G.: Preliminary results of a new antibiotic association in obstetrics and gynecology, Minerva med. *48*:2648 (Aug. 25) 1958. **66.** Molinelli, E. A.; Vera Barros, E., and Ithurralde, D.: Tetracycline-oleandomycin in human brucellosis therapy, Antibiotics Annual 1957-58, New York, Medical Encyclopedia, Inc., 1958, pp. 692-697. **67.** Montilli, G., and Avellino, M.: Experienze con una nuova associazione di antibiotici (tetraciclina ed oleandomicina) in terapia dermatologica, Dermatologia *9*:3, 1958. **68.** Morador, J. L., and Morador, S.: Cause, prevention and treatment of staphylococcal infection in hospitals, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **69.** Morador, J. L., and Tate, L. S.: Treatment of 52 cases of infections caused by coagulase-positive staphylococci with a combination of oleandomycin and tetracycline, Antibiotics Annual 1957-58, New York, Medical Encyclopedia, Inc., 1958, pp. 702-707. **70.** Morador, J. L., and Tate, L. S.: The treatment of anorectal infections with Signemycin, An. Ateneo Clin. Quirur. *1*:52 (Jan.) 1958. **71.** Morel, A. S.: Surgical infections: a guide to therapy, Clinical Review & Research Notes *1*:18-21 (July) 1958. **72.** Morey, G. S.: Infections in nursing babies due to *Pseudomonas aeruginosa (B. pyocyaneus)* alone or associated with other organisms, Rev. Hosp. nino, *72*:3, 1958. **73.** Oates, J. K.: Trial of Signemycin in non-specific urethritis, Brit. J. Vener. Dis. *34*:38, 1958. **74.** O'Herlihy, F. C.: A clinical trial with Signemycin, Medical Press (London), p. 897 (Sept. 17) 1958. **75.** Olmer, J., and Casanova, P.: Therapeutic notes: Clinical trials of Signemycin in the treatment of 59 patients, Semaine hop. Paris, Vol. 34, no. 2 (Feb.) 1958. **76.** Ottolenghi, C. E.; Frigerio, E. R., and Soto Jimenez, D.: Combined antibiotic therapy in 35 cases of osteomyelitis, Bol. y trab., Soc. cir. Buenos Aires, *41*:739, 1957. **77.** Pagola, J. G.; Benavides, L., and Heredia, A.: An evaluation of tetracycline-oleandomycin in the treatment of epidemic typhus, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **78.** Pavone, M.; Anello, A., and Macaluso, M. P.: Signemycin in the therapy of infections of urinary passages, to be published. **79.** Perez Villasante, G.: Postoperative treatment of the ear cavity, An. Soc. Mexico de Otorinolaringologia, No. *34-35*:175 (May-Aug.) 1957. **80.** Prokop, O.: On the question of staphylococcus infections resistant to therapy, Der Praktische Arzt, *12*:145 (Feb. 15) 1958. **81.** Quarti, M.: Efficacy of the association of oleandomycin and tetracycline in staphylococcal infections, Aggiornamento Pediatrico, *8*:11, 1957. **82.** Quirno, N.; Fukelman, R., and Achaval, M.: Treatment with oleandomycin-tetracycline of infections observed in clinical practice, Dia med. *30*:2938 (Nov. 17) 1958. **83.** Ragazzini, F.; Moggi, P., and Acocella, M.: First clinical applications of Signemycin in pediatrics, Minerva med. *48*:2667 (Aug. 25) 1957. **84.** Randig, K.: Some experiences with Signemycin, Deutsches med. J. *8*:447 (Aug. 15) 1957. **85.** Rebelledo, L. M., and Heredia, D. J.: Further clinical studies of an association of tetracycline and oleandomycin in the treatment of various infections, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **86.** Rentchnick, P.: A combination of broad-spectrum antibiotics, Medecine et Hygiene, *379*:562 (Nov. 30) 1957. **87.** Revelli, E., and Durando, C.: Treatment of the nonspecific inflammatory component of tuberculosis of the female genital organs, Minerva med. *48*:2658 (Aug. 25) 1957. **88.** Rivera, J. A.; Brame, R. E., and Osborne, D.: Sensitivity of *Micrococcus pyogenes* from burned patients to the action of oleandomycin. The emergence of resistance to this antibiotic, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **89.** Rondanelli, E. G.: The therapeutic problem of orchitis by parotitic virus, Institute of General Clinical Medicine and Medical Therapy of the University of Pavia, Bulletin med. & surg. soc., Pavia, *71*:1, 1957. **90.** Saavedra Amaro, S., and Lopez Zepeda, L.: Comprobacion clinica de la Signemycin en el tratamiento de infecciones diversas, to be published in Medicina, Mex. **91.** Sanchez Creus, P.: Los antibioticos de indicaciones limitadas, Rev. clin. espan. *69*:378 (June 30) 1958. **92.** Sangiuolo, F.: Therapeutic action of the tetracycline-oleandomycin (Signemycin) association, Minerva med. *48*:2679 (Aug. 25) 1957. **93.** Santas, A. A.; Ganora, H. M., and Brea, C. M.: Antibiotic prophylaxis in thoracic surgery, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **94.** Schenone, H.: Genitourinary infections treated with the antibiotic combination tetracycline and oleandomycin, paper read at Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 1958, to be published. **95.** Shubin, H.: Clinical evaluation of combined chemotherapy, oleandomycin and tetracycline, Antibiotic M. *4*:174 (March) 1957. **96.** Signer, A., and Vinci, G. G.: Signemycin in the healing of wounds, Arch. Societa Med-Chirurg. Messina, Vol. II, 1957. **97.** Smazal, S. F., and Crowley, P. J.: Routine use of the antibiotics tetracycline and oleandomycin in combination for the treatment of infections represented in an unselected series of general office patients, to be published. **98.** Steinman, E.: Trial of an antibiotic combination as a routine agent for treatment of infections in office practice, to be published. **99.** Stritzler, C., and Frank, L.: Significance of the response of acne vulgaris to antibiotics, Antibiotic M. *5*:109 (Feb.) 1958. **100.** Talbot, J. R.: Experience with an antibiotic combination (tetracycline-oleandomycin) used routinely for anti-infective therapy in an office practice, Wisconsin M. J. *57*:237-238 (June) 1958. **101.** Tato, J. M.; Galli, L. A.; Rechniewski, C.; Arauz, S.; Games, J.; Bello, J.; de Sebastian, G., and Bergaglio, O.: Treatment of chronic sinusitis with a combination of oleandomycin and tetracycline, Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 675. **102.** Willcox, R. R.: Tetracycline and oleandomycin in combination in nongonococcal urethritis, Antibiotics Annual 1957-58, New York, Medical Encyclopedia, Inc., 1958, p. 672. **103.** Willcox, R. R.: The treatment of nongonococcal urethritis with tetracycline and oleandomycin in combination (Signemycin), Medical Press (London) (Dec. 11) 1957. **104.** Willemot, J. P., et al.: Signemycin in the treatment of pulmonary infections, Bruxelles med. *38*:1026 (June 22) 1958. **105.** Winton, S. S., and Chesrow, E. J.: A clinical study of combined chemotherapy. Antibiotics Annual 1956-57, New York, Medical Encyclopedia, Inc., 1957, p. 55. **106.** Wittmoser, R.: Hospitalismus, Chirurgische Praxis, *3*:281 (Sept.) 1957. **107.** Zaldivar, C. G., and Falcone, F.: Preliminary results in osteomyelitis with tetracycline and the phosphate of oleandomycin (Signemycin), Rev. Hosp. nino *18*:151 (June) 1957. **108.** Zaldivar, C. G.: Complicated forms of chronic osteomyelitis, Rev. Hosp. nino *72*:315 (Dec.) 1957.

PFIZER LABORATORIES, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.



VITERRA® PEDIATRIC

METERED-FLOW BOTTLE

ALLOW 30 SECONDS BETWEEN DISPENSINGS

Special note to doctors who took this tour:

Problems of over- and under-dosage, spillage, spoilage or leakage disappear with VITERRA PEDIATRIC'S new Metered-Flow bottle. Why not consider these advantages when you recommend a vitamin supplement?

Roerig Rx

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the world's well-being

INTERNATIONAL ACADEMY OF PROCTOLOGY

(Continued from Page 308)

presentations, and on newer treatment methods, as requested by those who attended the Mexico City meeting in 1958.

All physicians and their wives are cordially invited to attend the annual conventions of the International Academy of Proctology, whether or not they are affiliated with the academy. There is no fee for attendance at these teaching sessions of the Academy.

INTERNATIONAL COLLEGE OF SURGEONS MEETINGS

The twenty-fourth annual Congress of the North American Federation, International College of Surgeons, will be held in Chicago, September 13-17. The federation is composed of the United States, Canadian, Mexican, and Central American Sections.

The 12th biennial International Congress of the International College of Surgeons will be held in Rome, Italy, May 15-18, 1960. For information, write to the Secretariat, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

SURGERY OF TRAUMA

The United States Section, International College of Surgeons, has formed the Section on Surgery of Trauma as a successor to the Section on Occupational Surgery.

Chester C. Guy, M.D., clinical associate professor of surgery at the University of Illinois College of Medicine, Chicago, is chairman of the section and N. Gillmor Long, M.D., Evanston and Chicago, is co-chairman and secretary.

The Section on Surgery of Trauma will provide a forum for those surgeons whose work is limited to traumatic lesions and for those who treat lesions frequently in their daily practice. The section will deal with developments in the treatment of specific injuries, consider programs for the prevention of injuries, conduct studies on basic physiologic and pathologic changes in the injured person, and give thought to allied subjects.

OREGON CANCER CONFERENCE

An Oregon Cancer Conference is being held July 16 and 17, 1959, in Portland under the joint sponsorship of the Oregon State Medical Society, the Oregon Division of the American Cancer Society, the University of Oregon Medical School and the Oregon Academy of General Practice. The Conference is planned for midsummer as a special feature of the Oregon Centennial celebration.

Guest speakers for the two-day Cancer Conference will include Dr. Arthur C. Allen, Professor of Pathology and Dr. Ralph Jones, Jr., Professor of Medicine, both from the faculty of the University of Miami School of Medicine at Coral Gables, Florida; Dr. Gilbert H. Fletcher of Houston, Texas, Radiologist, Tumor Institute of the M. D. Anderson Hospital; Dr. Leslie M. Smith, Dermatologist of El Paso, Texas; Dr. Bayard Carter, Professor of Obstetrics and Gynecology, Duke University School of Medicine; Dr. Gilbert Dalldorf, Albany, New York, Director, Medical and Scientific Research Department of the National Foundation and Dr. J. Englebert Dunphy of Portland, Professor of Surgery, University of Oregon Medical School.

In addition to their individual presentations, each guest speaker will participate in one or more panel discussions.

The program is being developed under the direction of the Committee on Cancer of the Oregon State Medical Society. Dr. Martin A. Howard of Portland is chairman.

All sessions of the Conference will be held in the Library Auditorium at the University of Oregon Medical School except the banquet on the evening of July 16 which will be held at the Hotel Multnomah in Portland. The entire expense of the Conference is being underwritten by the Oregon Division of the American Cancer Society. There will be a charge, however, for the banquet.

A block of rooms has been reserved at the Hotel Multnomah for physicians wishing to attend the Conference. A copy of the complete program and hotel reservation forms may be obtained by writing to Roscoe K. Miller, Executive Secretary, Oregon State Medical Society, 1115 S.W. Taylor Street, Portland 5, Oregon.

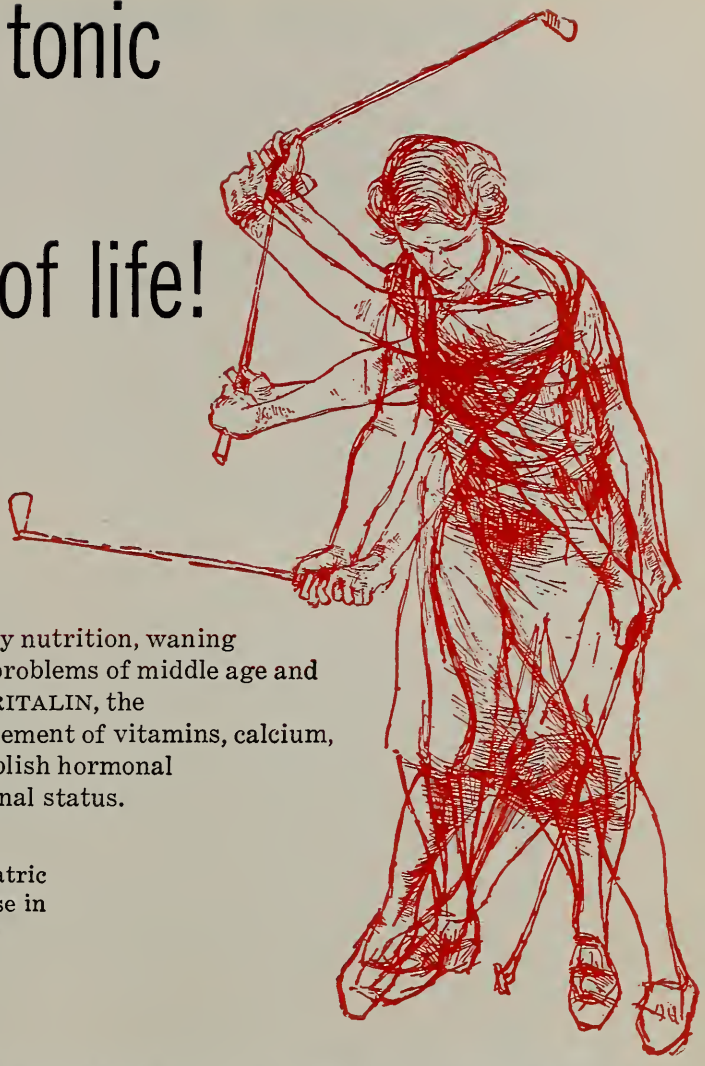
WHITE HOUSE CONFERENCE ON AGING—1961

The January 1961 White House Conference on Aging has as its purpose the arrival at facts and recommendations on the utilization of the skills and experiences and the general improvement of the living conditions of older people.

State conferences will be held in advance of the Washington, D. C., Conference of 1961. The MSMS Geriatrics Committee, at its March 4 meeting, laid down a plan to develop a review of the accomplishments of the Michigan State Medical Society in the field of gerontology, for submission to the Michigan State Conference, which may be initiated by the State Department of Health. Adequate medical representation on the Michigan State Conference Committee will be requested.

Any MSMS member interested in any facet of the January 1961 White House Conference on Aging is invited to send his thoughts and recommendations to A. Hazen Price, M.D., Chairman of the MSMS Geriatrics Committee, Box 539, Lansing 3.

New revitalizing tonic brightens the second half of life!



Ritonic™

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the *safe* central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement . . ."[1] "Patients reported an increase in alertness, vitality and sense of well being."[2]

PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

Ritalin® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B_1)	5 mg.
riboflavin (vitamin B_2)	1 mg.
pyridoxin (vitamin B_6)	2 mg.
vitamin B_{12} activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.

Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.
Supplied: Ritonic CAPSULES; bottles of 100.
References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. *6*:534 (July) 1958.
2. Bachrach, S.: To be published.
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

C I B A SUMMIT, N. J.

2/2655MK

Say you saw it in the Journal of the Michigan State Medical Society

Governor's Hospital Cost Survey

The University of Michigan in January began extensive interviews with experts throughout the state to obtain factual information on hospital and medical economics in Michigan.

According to Prof. Walter J. McNerney, director of the study, data will be obtained from several hundred hospitals and allied institutions, prepayment and insurance companies, and professional workers.

Designed to provide all interested groups in the state with facts necessary to review key policies now under active discussion, the study is being conducted at the request of the Governor's Commission on Pre-Paid Hospital Care Plans. It is supported by a grant of $324,760 from the Kellogg Foundation.

The study is the first, most comprehensive, and most liberally financed of several studies in medical and hospital economics now being conducted in several states across the country. The Michigan study is divided into eight major areas, each under the direction of a research associate. These include:

1. *Physician.*—An inventory of professional personnel, an examination of how effectively hospitals are being utilized, and a study of the impact of changes in medical science on medical costs.

2. *Household Survey.*—A household survey of a cross section of Michigan residents with special attention to the aged and those with major medical expense to measure health expenditures, sources of payment, attitudes toward medical economic problems, perceived unmet needs and difficulties involved getting and keeping pre-paid or insurance coverage for medical and hospital expenses.

3. *Hospital Accounting and Reimbursement.*—A study of the relationship between frequency of use of hospital services and source of payment, an evaluation of accounting systems including selected cost analysis methods in hospitals, analysis of reimbursement formulas (including Blue Cross), and an assessment of selected problems such as capital costs, research, and education.

4. *Programs and Costs of Hospitals and Allied Institutions.*—An inventory of hospitals and allied institutions with an estimate of the insurability of their services, and analysis of cost trends and related factors, and an evaluation of working relations between these institutions.

5. *Prepayment and Insurance Agencies.*—An inventory of currently available hospital and medical prepayment and insurance programs in Michigan, including evaluation of gaps in population coverage and scope of benefits, analysis of operations of insurance and prepayment organizations, examination of experience versus community rating, measurement of the impact of benefit structure on use, analysis of coverage during layoffs and unemployment, and cost estimates for extending breadth and depth of coverage.

6. *Control.*—Examination of controls exerted by various agencies affecting the quantity, quality and costs of health services.

7. *Discharge Study.*—Analysis of the institutionalized population of Michigan during the past year to isolate major factors conditioning patterns of use.

8. *Government.*—Description and analysis of the roles of various government agencies paying for or directly providing health care in the State.

"At the moment, the State lacks a factual basis upon which to base future action in the area of hospital and medical economics," McNerney declares. "This study should provide highly useful information to persons and agencies facing key policy decisions in this area."

Interim reports from the U-M study will be made directly to the public, starting this spring. A final, overall report is expected to be ready by the spring of 1960.

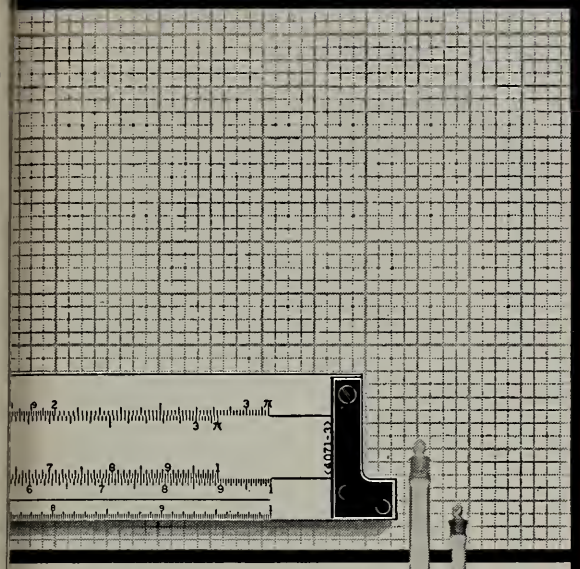
"During the planning and early stages of this study, co-operation from health agencies and personnel in Michigan has been excellent," McNerney declares. "Groups such as Blue Cross-Blue Shield, insurance companies, hospitals, labor, management and the government have also been highly supportive.

"Given further assistance of the same caliber, health agencies in Michigan may soon be in the desirable position of being able to take a comprehensive look at their problems and being able to plot an intelligent course for the future."

In asking the University of Michigan to conduct the study, the Governor's Commission gave the University "full responsibility for its design and implementation," McNerney notes. The Commission also approved an arrangement whereby financial support went directly to the U-M and reports were made directly from the U-M to the public.

"In this manner, the Commission gave concrete evidence of its desire to get at the facts objectively, while reserving the privilege of interpreting the U-M report in a separate statement," he continues. "The commission and the University, working together, obtained the official approval of organized hospitals, physicians and insurance and prepayment organizations before planning the project in detail."

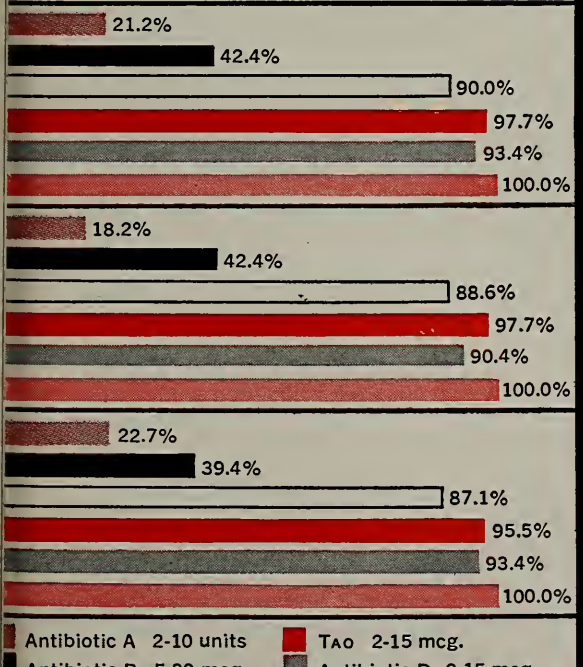
The study is staffed by a director, eight research associates, and several research assistants representing the skills of hospital administration, medicine, public health, economics, accounting, actuarial science, and medical sociology.



n the aboratory:

ver 90% effective gainst resistant staph

OMPARATIVE TESTS BY THREE METHODS ISC, TUBE DILUTION, CYLINDER PLATE) N 130 STAPHYLOCOCCI[9]



Percentage of organisms inhibited by the range of concentrations listed for each antibiotic.

Other Tao advantages:

Rapidly absorbed—stable in gastric acid,[7] TAO needs no retarding protective coating

Low in toxicity—freedom from side effects in 96% of patients treated; cessation of therapy is rarely required

Highly palatable—"practically tasteless"[7] active ingredient in a pleasant cherry-flavored medium.

Dosage and Administration: Dosage varies according to the severity of the infection. **For adults,** the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. **For children** 8 months to 8 years, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg., bottles of 60. TAO for Oral Suspension—1.5 Gm., 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. Koch, R., and Asay, L. D.: J. Pediat., in press. 2. Leming, B. H., Jr., et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 3. Mellman, et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 4. Olansky, S., and McCormick, G. E., Jr.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 5. Shubin, H., et al.: Antibiotics Annual 1957-1958, New York, N. Y., Medical Encyclopedia, Inc., 1958, p. 679. 6. Isenberg, H., and Karelitz, S.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 7. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy 5:527 (Aug.) 1958. 8. Kaplan, M. A., and Goldin, M.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 9. Truant, J. P.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958.

Tao dosage forms— for specific clinical situations

Tao Pediatric Drops

For children—flavorful, easy to administer.

Supplied: When reconstituted, 100 mg. per cc. Special calibrated droppers—5 drops (approx. 25 mg.) and 10 drops (approx. 50 mg.). 10 cc. bottle.

Tao-AC (Tao analgesic, antihistaminic compound)

To eradicate pain and physical discomfort in respiratory disorders.

Supplied: In bottles of 36 capsules.

Taomid* (Tao with triple sulfas)

For dual control of Gram-positive and Gram-negative infections.

Supplied: Tablets, bottles of 60. Oral Suspension, bottles of 60 cc.

Intramuscular or Intravenous

For direct action—in clinical emergencies.

Supplied: In 10 cc. vials.

*TRADEMARK

Roerig

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being



". . . the conversion privilege in this group policy is extremely broad."

MSMS Members Like Group Life Insurance Plan

First Report

Despite mangled airline schedules due to stormy weather, Charles G. Heitzberg *(left)* of Newark, New Jersey, arrived in Detroit only a few hours late for an appointment with MSMS President G. B. Saltonstall, M.D., and President-Elect M. A. Darling, M.D., on January 29. Mr. Heitzberg came to Detroit to discuss initial reports of membership response to the new MSMS Group Life Insurance offering. He is Vice President in Charge of Agencies, Mutual Benefit Life Insurance Company.

The preliminary enrollment report was presented by Mr. Ben P. Stratton, Lansing, whose agency will install and service the new plan for MSMS. Mr. Stratton said that more than 500 applications had been returned to January 26 from members receiving informational material from MSMS.

Doctor Darling, chairman of the MSMS study committee which developed the program, said that the conversion privilege in this group policy is extremely broad. The clause provides for immediate conversion, even though the policy-holder is non-insurable under ordinary circumstances. Most plans permit conversion only after the individual leaves the group.

Mr. Heitzberg emphasized that the $10,000 policy would provide liquid funds for the settlement of estate taxes, and for this reason alone would be a valuable addition to the professional man's insurance portfolio. In addition, he said the excellent disability feature provides a waiver of premium for an unlimited period. Another unique feature of the policy is the broad settlement options which are the same as those in an individual contract.

Doctor Saltonstall pointed out that the Mutual Benefit Life Insurance Company, through its Michigan agencies, had long worked with the medical profession; its local representatives have acquired a fine understanding of the financial planning and estate problems of physicians.

It was reported that an additional 300 applications were expected within a thirty-day period and that the plan would take effect no later than March 1, following approval by the State Insurance Commissioner.

PR REPORT

COUNTY SECRETARIES—PR SEMINAR

Opening this year's Seminar in Detroit on January 31, Alma College President Robert D. Swanson sounded the keynote with an earnest appeal to all professional men.

By pointing to their "high degree of learning and their capacity for leadership," Dr. Swanson urged doctors, educators and all other learned men to "fully exert that leadership for the good of this nation's social and political future." (See page 342 for complete text of speech.)

Heading the two-day meeting were R. Wallace Teed, M.D., Ann Arbor, Chairman of the MSMS Public Relations Committee, and James E. Mahan, M.D., Allegan, Chairman of the County Society Secretaries. Ray M. Duffy, M.D., of Pinckney, was elected as Dr. Mahan's successor for the coming year.

Three panel groups, chaired by Hugh M. Fuller, M.D., Detroit; Lawrence A. Drolett, M.D., Lansing, and Dr. Teed, discussed the latest developments and techniques in public relations and association work with the more than two hundred state and county officers and P.R. representatives in attendance.

Representatives of the three branches of state government, Senator Edward Hutchinson, State Controller James W. Miller and Washtenaw Circuit Judge James R. Breakey, Jr., discussed medicine's participation in the legislative, executive and judicial processes. Also featured on the program were MSMS Legal Counsel Lester P. Dodd, Detroit; President G. B. Saltonstall, M.D., Charlevoix; Councilors Wm. M. LeFevre, M.D., Muskegon, and A. E. Schiller, M.D., Detroit; A. Hazen Price, M.D., and Gaylord S. Bates, M.D., both of Detroit; and MSMS Public Relations Counsel Hugh W. Brenneman, Lansing.

Communications Luncheon

Sunday noon, following adjournment of the Seminar, Michigan Medical Service hosted a special luncheon for the registrants, at which time a progress report on the new Blue Shield contract was made by top MMS and MSMS officials and committee chairmen.

Record Number Registered

Among the 226 present were:

County Secretaries—H. E. Schneiter, M.D., (Allegan); Harold Kessler, M.D., (Alpena-Alcona-Presque Isle); Everette L. Phelps, M.D., (Barry); Howard T. Knobloch, M.D., (Bay-Arenac-Iosco); J. C. Heffelfinger, M.D., (Branch); S. A. Yannitelli, M.D., (Calhoun); B. C. Cook, M.D., (Clinton); R. D. Cecconi, M.D., (Dickinson-Iron); John B. Rowe, M.D., (Genesee); P. H. Ringer, M.D., (Gratiot-Isabella-Clare); F. M. Wessels, M.D., (Hillsdale); C. F. Wible, M.D., (Huron); Wm. D. Cheney, M.D., (Ingham); C. E. Stevens, M.D., (Ionia-Montcalm); H. W. Porter, M.D., (Jackson); R. D. Warnke, M.D., (Kalamazoo); James R. Doty, M.D., (Lapeer); R. T. Hammel, M.D., (Lenawee); R. M. Duffy, M.D., (Livingston); Peter V. Kane, M.D., (Macomb); Louis Rosenbaum, M.D., (Marquette-Alger); James E. Walters, M.D., (Mecosta-Osceola-Lake); R. A. Frary, M.D., (Monroe); H. C. Tellman, M.D., (Muskegon); R. W. Emerick, M.D., (Newaygo); P. A. Dosch, M.D., (North Central Counties); Thomas R. Kirk, M.D., (Northern Michigan); J. A. Read, M.D., (Oakland); P. J. DeVries, M.D., (Ottawa); Glenn E. Mohney, M.D., (St. Clair); C. G. Porter, M.D., (St. Joseph); A. E. Parks, M.D., (Van Buren); G. H. Bauer, M.D., (Washtenaw); Hugh M. Fuller, M.D., (Wayne); B. F. Koepke, M.D., (Wexford-Missaukee).

County Presidents—A. P. Brachman, M.D., (Allegan); T. W. Myers, M.D., (Barry); G. L. Hagelshaw, M.D., (Bay-Arenac-Iosco); H. C. Mitchell, M.D., (Branch); D. L. Finch, M.D., (Calhoun); J. G. Haarer, M.D., (Ionia-Montcalm); Jason B. Meads, M.D., (Jackson); J. G. Malone, M.D., (Kalamazoo); James W. Logie, M.D., (Kent); R. Fred Hauer, M.D., (Livingston); D. L. Rousseau, M.D., (Macomb); Ruth E. Lalime, M.D., (Manistee); J. L. Tyson, M.D., (Mecosta-Osceola-Lake); N. A. Fleishmann, M.D., (Muskegon); R. R. Wessels, M.D., (Oakland); N. F. Bach, M.D., (Shiawasee); C. I. Owen, M.D., (Wayne).

County Presidents-Elect.—E. D. Hamilton, M.D., (Branch); G. E. Anthony, M.D., (Genesee) Bruce C. Olsen, M.D., (Ionia-Montcalm); L. E. Sargent, M.D., (Jackson); J. R. Lentini, M.D., (Kent) C. L. Cook, M.D., (Lenawee); M. S. Reizen, M.D., (Macomb); L. L. Loder, M.D., (Muskegon); W. J. Zimmerman, M.D., (Oakland); J. D. Cantwell, Jr., M.D., (St. Clair); F. J. Loomis, M.D., (Van Buren); Milton R. Weed, M.D., (Wayne).

County Bulletin Editors.—P. K. Stevens, M.D., (Genesee); David I. Sugar, M.D., (Wayne).

Public Relations Chairmen.—J. W. Bunting, M.D., (Alpena-Alcona-Presque Isle); Robert E. Reagan, M.D., (Berrien); R. S. Simpson, M.D., (Calhoun); F. W. Smith, M.D., (Clinton); C. L. Hoogerland, M.D., (Gratiot-Isabella-Clare); O. J. Preston, M.D., (Genesee); David Kahn, M.D., (Ingham); L. L. Olsen, M.D., (Jackson); E. L. Stone, M.D., Co-Chairmen, (Jackson); D. P. Moore, M.D., (Kent); T. A. Barton, M.D., (Livingston); Victor Curatolo, M.D., (Macomb); Paul Ivkovich, M.D., (Mecosta-Osceola-Lake); R. C. Olsen, M.D., (Menominee); L. L. Loder, M.D., (Muskegon); L. E. Grate, M.D., (Northern Michigan); Everette Gustafson, M.D., (Oakland); J. H. Kitchel, M.D., (Ottawa); J. E. Manning, M.D., (Saginaw); Sidney E. Chapin, M.D., (Wayne).

MSMS Council.—O. J. Johnson, M.D., (Bay); H. J. Meier, M.D., (Branch); Editor Wilfrid Haughey, M.D., (Calhoun); G. W. Slagle, M.D., (Calhoun); D. G. Pike, M.D., (Grand Traverse); E. S. Oldham, M.D., (Gratiot-Isabella-Clare); T. P. Wickliffe, M.D., (Houghton-Keweenaw-Baraga); K. H. Johnson, M.D., (Ingham); Ralph W. Shook, M.D., (Kalamazoo); C. Allen

(Continued on Page 338)

JUST ONE TABLET DAILY



provides therapeutic sulfa levels for 24 hours...
Highly soluble in acid and alkaline media... rapidly absorbed, producing fast, effective plasma-tissue concentrations sustained for the entire day. Simple, single 0.5 Gm. daily dose minimizes patient dosage confusion. At least equivalent to 4 to 6 Gms. daily of previous sulfonamides. Does not produce renal complications.[1]

with low incidence of sensitivity reactions...
KYNEX is extremely low in toxic potential.[2,3] Cutaneous or other objective sensitivity reactions are rare, as demonstrated in a large scale evaluation of clinical toxicity.[2] Also minor subjective reactions are less likely to develop when the recommended dosage is used.[2]

Dosage: Adults, 0.5 Gm. (1 tablet) daily following an initial first-day dose of 1 Gm. (2 tablets).

TABLETS, 0.5 Gm., Bottles of 24 and 100.

also available—KYNEX Acetyl Pediatric Suspension, cherry-flavored, 250 mg. sulfamethoxypyridazine activity per teaspoonful (5 cc.). Bottles of 4 and 16 fl. oz.

1. Editorial, New England J. Med. 258:48, 1958.
2. Vinnicombe, J.: Antibiotic Med & Clin. Ther. 5:474, 1958.
3. Sheth, U. K., et al.: Ibid., p. 604, 1958.

for improved control
WHENEVER SULFAS ARE INDICATED

KYNEX®

Sulfamethoxypyridazine Lederle

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

COUNTY SECRETARIES—PR SEMINAR

(Continued from Page 335)

Payne, M.D., (Kent); D. Bruce Wiley, M.D., (Macomb); W. M. LeFevre, M.D., (Muskegon); G. B. Saltonstall, M.D., (Northern Michigan); C. N. Hoyt, M.D., (St. Clair); W. W. Babcock, M.D., (Wayne); M. A. Darling, M.D., (Wayne); J. J. Lightbody, M.D., (Wayne); L. Fernald Foster, M.D., (Wayne); G. T. McKean, M.D., (Wayne); A. E. Schiller, M.D., (Wayne).

Executive Secretaries.—Howard Kahn (Bay-Arenac-Iosco); Ruth Simmons, (Genesee); Jack Kantner, (Ingham); W. G. McClimans, (Kent); Roger L. Warnshuis, (Kent); Lucy W. Bartlett, (Muskegon); Mrs. Mary G. Haines (Oakland); Else Kolhede, (Wayne).

Woman's Auxiliary Representatives.—Mrs. Robert E. Reagan (Berrien); Mrs. Paul Ivkovich (Mecosta-Osceola-Lake); Mrs. Harold H. Gay, (Midland); Mrs. C. I. Owen (Wayne).

Michigan State Medical Assistants Society Representatives.—Mrs. Reta V. Shedd, (Calhoun); Mrs. Louise Sleziak (Jackson); Miss Donna Hislop (Muskegon).

Public Relations Committee.—W. G. Gamble, M.D., (Bay-Arenac-Iosco); H. C. Hansen, M.D., (Calhoun); J. L. Leach, M.D., (Genesee); W. Z. Rundles, M.D., (Genesee); C. K. Stroup, M.D., (Genesee); David Kahn, M.D., (Ingham); H. G. Benjamin, M.D., (Kent); E. W. Schnoor, M.D., (Kent); Stanley L. Hoffman, M.D., (Livingston); F. E. Luger, M.D., (Saginaw); C. L. Weston, M.D., (Shiawasee); R. W. Teed, M.D., (Washtenaw); E. H. Fenton, M.D., (Wayne); E. C. Long, M.D., (Wayne); G. E. Millard, M.D.; (Wayne); E. S. Oldham, M.D., (Gratiot-Isabella-Claire); A. E. Schiller, M.D., (Wayne); L. Fernald Foster, M.D., (Wayne); T. P. Wickliffe, M.D., (Houghton-Baraga-Keeweenaw).

Participants on the Program.—Gaylord S. Bates, M.D., (Dearborn); James R. Breakey, Jr., (Ypsilanti); H. W. Brenneman, (Lansing); Ralph R. Cooper, M.D., (Detroit); M. A. Darling, M.D., (Detroit); Lester P. Dodd, LL.B., (Detroit); Hugh M. Fuller, M.D., (Detroit); Senator Edward Hutchinson, (Fennville); K. H. Johnson, M.D., (Lansing); Jay C. Ketchum, (Detroit); Luther R. Leader, M.D., (Detroit); Wm. M. LeFevre, M.D., (Muskegon); Max L. Lichter, M.D., (Melvindale); J. J. Lightbody, M.D., (Detroit); James E. Mahan, M.D., (Allegan); G. Thomas McKean, M.D., (Detroit); J. W. Miller, (Lansing); A. Hazen Price, M.D., (Detroit); G. B. Saltonstall, M.D., (Charlevoix); A. E. Schiller, M.D., (Detroit); R. D. Swanson, D.D., (Alma); R. W. Teed, M.D., (Ann Arbor).

Guests.—Henry Alexander, (Detroit); Mrs. G. E. Anthony, (Flint); Mrs. N. F. Bach, (Owosso); Mr. Ray Ballard (Huntington Woods); Mrs. T. A. Barton, (Howell); Rudy Bolich, (Marquette); W. W. Boyles, (Detroit); Russell J. Burns, (Ann Arbor); Verne Collet, (Detroit); Mr. A. L. Crampton, (Lansing); Mrs. Victor Curatolo (Mt. Clemens); Mrs. M. A. Darling, (Detroit); Peter B. Docherty, (Lansing); Lester P. Dodd, LL.B., (Detroit); John A. Doherty, (Lansing); Mrs. R. W. Emerick, (Fremont); James Foley, (Detroit); Dr. & Mrs. E. J. Geist, Jr., (Rochester); L. Gordon Goodrich, (Detroit); Mrs. W. G. Gamble, Jr., (Bay City); Mrs. L. E. Grate, (Charlevoix); Mrs. Everette Gustafson, (Pontiac); Mrs. R. T. Hammel, (Tecumseh); Mrs. H. C. Hansen, (Battle Creek); A. E. Heustis, M.D., (Lansing); Dan D. Jackson, (Lansing); Mrs. P. V. Kane, (Mt. Clemens); Jay C. Ketchum, (Detroit); Mrs. J. H. Kitchell, (Grand Haven); Peter E. Klein, (Detroit); Dr. and Mrs. P. T. Lahti, (Birmingham); Louis LeFevre, M.D., (Muskegon); Mrs. L. L. Loder, (Muskegon); Mrs. J. W. Logie, (Grand Rapids); Mrs. F. E. Luger, (Saginaw); Mrs. J. E. Manning, (Saginaw); R. H. McDonough, (Grand Rapids); Mrs. J. B. Meads, (Jackson); Mrs. H. C. Mitchell, (Coldwater); Mrs. G. E. Mohney, (Port Huron); John Nelson, (Detroit); Irvin Nichols, (Lansing); Harry Parke, (Lansing); Mr. & Mrs. Tom Paton, (Detroit); Mrs. C. G. Porter (Three Rivers); Marlouise Redman, (Detroit); Dr. and Mrs. F. P. Rhoades, (Detroit); Chuck Rickett, (Traverse City); Mrs. Louis Rosenbaum (Ishpeming); Mrs. D. L. Rousseau, (Mt. Clemens); Helen Schick, (Detroit); Leonard D. Schramm, (Wayne); J. E. Shadduck, (Lansing); Mrs. R. W. Shook, (Kalamazoo);

(Continued on Page 340)

RECORD OF ATTENDANCE AT MSMS COUNTY SECRETARIES-PUBLIC RELATIONS SEMINAR
JANUARY 31-FEBRUARY 1, 1959

County or District Medical Society	*President*	*President-Elect*	*Secretary*	*County PR Chairmen*	*Editor*	*MSMS Councilor*	*MSMS PR Committee*	*Executive Secretary*
Allegan	X	O	X	O	N	N	N	N
Alpena-Alcona-Presque Isle	O	O	X	X	N	N	O	N
Barry	X	N	X	O	N	N	O	N
Bay-Arenac-Iosco	X	O	X	O	O	X	X	X
Berrien	O	O	O	X	O	N	N	N
Branch	X	X	X	O	X	X	N	N
Calhoun	X	O	X	X	O	XX	X	N
Cass	O	N	O	N	N	N	N	N
Chippewa-Mackinac	O	O	O	O	N	O	O	N
Clinton	O	O	X	X	N	N	N	N
Delta-Schoolcraft	O	O	O	O	N	N	N	N
Dickinson-Iron	O	O	X	O	N	N	N	N
Eaton	O	O	O	N	N	N	N	N
Genesee	O	X	X	X	X	O	XXXO	X
Gogebic	O	O	O	O	N	N	N	N
Grand Traverse-Leelanau-Benzie	O	O	O	O	O	X	O	N
Gratiot-Isabella-Clare	O	O	X	X	N	X	XO	N
Hillsdale	O	O	X	N	N	N	N	N
Houghton-Baraga-Keweenaw	O	O	O	O	N	X	X	N
Huron	O	N	X	O	N	N	O	N
Ingham	O	O	X	X	O	X	X	X
Ionia-Montcalm	X	X	X	O	N	N	N	N
Jackson	X	X	X	XX	N	N	X	N
Kalamazoo	X	O	X	O	O	X	N	N
Kent	X	X	O	X	O	X	XXO	XX
Lapeer	O	N	X	O	N	N	O	N
Lenawee	O	X	X	O	N	N	N	N
Livingston	X	O	X	X	N	N	X	N
Luce	O	N	O	N	N	N	N	N
Macomb	X	X	X	X	N	X	O	N
Manistee	X	O	O	O	N	N	N	N
Marquette-Alger	O	O	X	O	N	N	O	N
Mason	O	N	O	O	N	N	N	N
Mecosta-Osceola-Lake	X	O	X	X	N	N	N	N
Menominee	O	O	O	X	N	N	N	N
Midland	O	O	O	O	N	N	N	N
Monroe	O	O	X	X	N	N	X	N
Muskegon	X	X	X	X	O	X	O	X
Newaygo	O	O	X	O	N	N	N	N
North Central	O	O	X	N	N	N	O	N
Northern Michigan	O	O	X	X	O	X	X	N
Oakland	X	X	X	X	O	N	OO	X
Oceana	O	N	O	N	N	N	N	N
Ontonagon	O	O	O	O	O	N	O	N
Ottawa	O	O	X	X	N	N	N	N
Saginaw	O	O	O	X	O	N	XO	O
St. Clair	O	X	X	O	O	X	X	N
St. Joseph	O	O	X	N	N	N	O	N
Sanilac	O	O	O	O	N	N	N	N
Shiawassee	X	O	O	O	N	N	X	N
Tuscola	O	O	O	N	N	N	N	N
Van Buren	O	X	X	O	N	N	N	N
Washtenaw	O	O	X	N	X	O	XO	O
Wayne	X	X	X	X	X	XXX	XXXXX	X
Wexford-Missaukee	O	O	X	O	O	N	OOOO N	N

X—Present
O—Absent
N—No such representative from the county medical society.

Others present at the Seminar were: Woman's Auxiliary representatives 4; Michigan State Medical Assistants Society representatives 3; Michigan Medical Service representatives 16; Seminar Participants of the Program 22; guests 58.

Proven

in over three years of clinical use
in over 600 clinical studies

Specific

FOR RELIEF OF ANXIETY
AND MUSCLE TENSION

Selective

Does not interfere with autonomic function
Does not impair mental efficiency,
motor control, or normal behavior
Has not produced hypotension,
agranulocytosis or jaundice

MEPROBAMATE (WALLACE)

Miltown®

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets.

WALLACE LABORATORIES, New Brunswick, N. J.

CM-8043

COUNTY SECRETARIES—PR SEMINAR

(Continued from Page 338)

Mrs. R. S. Simpson, (Battle Creek); Mrs. F. W. Smith, (St. Johns); Mrs. E. L. Stone, (Jackson); Mr. Ben Stratton, (Lansing); Mrs. D. I. Sugar, (Detroit); Franz Topol, (Kalamazoo); Kay Topp (Saginaw); Mrs. J. L. Tyson, (Big Rapids); John E. Verbiest, (Detroit); Marguerite M. Vergosen, (Detroit); Mrs. J. E. Walters, (Big Rapids); Mrs. M. R. Weed (Detroit); Mrs. F. M. Wessels, (Hillsdale); Dr. and Mrs. E. J. Westfall, (Berkley, Mich.); Mrs. C. L. Weston, (Owosso); Mrs. D. Bruce Wiley (Utica); Mrs. S. A. Yannitelli, (Battle Creek).

EXECUTIVE SECRETARIES CONFERENCE

On February 2, in the third of such meetings, eight of the nine county medical society executive secretaries in the state got together in Detroit for a workshop-type session with top staff members of MSMS.

Under the chairmanship of Wm. J. Burns, MSMS Executive Director, every phase of medical organization work was discussed: Hugh W. Brenneman and Warren Tryloff (public relations), Dick Philleo and Jack Pardee (legislation and media), Jay C. Ketchum and Gordon Goodrich (Blue Shield), and Robert Roney (membership and accounting).

Representing their respective county societies were Lucy Bartlett (Muskegon), Mary Haines (Oakland), Howard Kahn (Bay-Arenac-Iosco), John B. Kantner (Ingham), Else Kolhede (Wayne), Flora Mayer (Washtenaw), Ruth Simmons (Genesee), and Roger Warnshuis and W. G. McClimans (Kent). Sitting in as guests were J. A. Doherty of the Michigan Health Council and Dan Jackson of the Michigan Tuberculosis Association.

As an indication of the executive secretaries' enthusiasm for this type of workshop, they voted at its conclusion to ask The Council to continue it as an annual event.

LAWMAKERS CONVENE

Once again flags on the Capitol roof over the Michigan Senate and House signal passersby that the 144 representatives of the people have settled down for their annual four to six months' tussle with the problems of state.

The first tussle took place on the opening day of the session in the House. Normally the "majority" party assumes the prerogative of electing the officers of the House and naming the standing committees, thereby pretty much controlling the flow of legislation for two years. However, the voters last November split the membership evenly at fifty-five to fifty-five, and until the opening gavel sounded, a stalemate appeared in the offing.

Shortly before the Legislature convened, however, one of the Democratic members, Josephine Hunsinger of Detroit, went into a Detroit hospital for surgery, and her absence on opening day gave the balance of power to the Republicans. Despite bitter protests of the Democrats, they proceeded to launch the Session with their own party members firmly in control, although they did proffer some patronage appointments and committee controls to their short-handed opponents.

Over in the Senate, even though Republicans lost one district last fall to the Democrats, they still maintain a twenty-two to twelve majority and have organized that body along former lines.

At the end of the first four weeks thirty-four bills of greater or lesser interest to the medical profession have been introduced, and MSMS is in the process of drafting some proposals for early introduction. Main concern in both houses, and of both political parties, centers around how to raise new taxes, or conversely, how to cut necessary state services to fit present revenue sources.

Capitol observers predict passage of some sort of combination of income and corporate profits taxes. Arriving at this magical legislative formula may extend the Session well into the summer months this year.

MSMS PLANS TELEVISION SHOW IN KALAMAZOO



J. G. Malone, M.D.
President, Kalamazoo Academy of Medicine

On April 4, television viewers within range of WKZO-TV will see a special, live, one-hour show on The Family Doctor, produced by MSMS in cooperation with the Kalamazoo County Medical Society and neighboring county medical societies.

Following the outstanding success of the original production done in connection with the 1958 Annual Session in Detroit, the MSMS PR Committee authorized similar shows to be produced over several outstate TV stations.

Members of county medical societies within the area will be invited to appear on the show. The role of the family doctor is emphasized with special attention given to those modern medical and surgical procedures which are performed in the doctor's office.

It is expected that the show will be produced in four different cities during 1959.

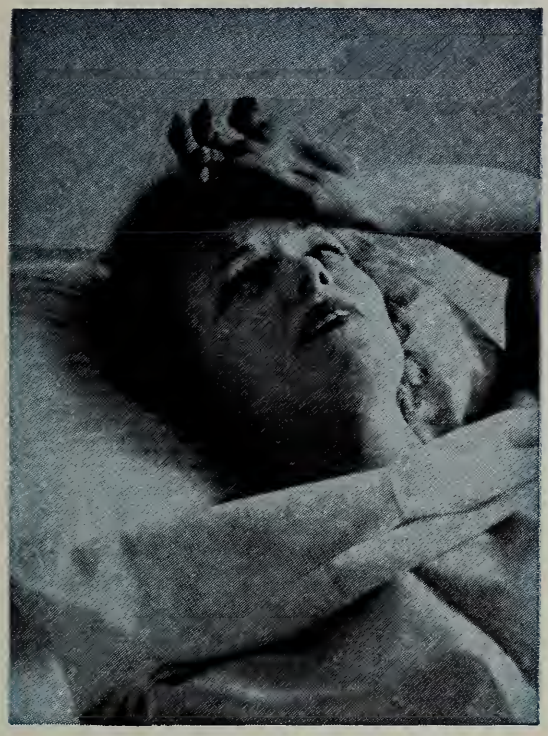
TO WEIGH LESS

The Michigan State Medical Society's Public Relations Committee has embarked on a new program of service to MSMS members and through them to their patients.

Called a "pamphlet of the month plan," a special committee will designate one pamphlet each month which the State Society will supply free of charge in the number requested to any doctor

(Continued on Page 342)

APPREHENSIVE surgical and obstetrical patients respond well to



VISTARIL*

hydroxyzine pamoate

Outstanding safety
establishes peaceful indifference to preoperative preparation *without serious hypotensive effects.*

Psychotherapeutic potency
makes possible the maintenance of an adequate degree of narcosis with reduced doses of narcotics.

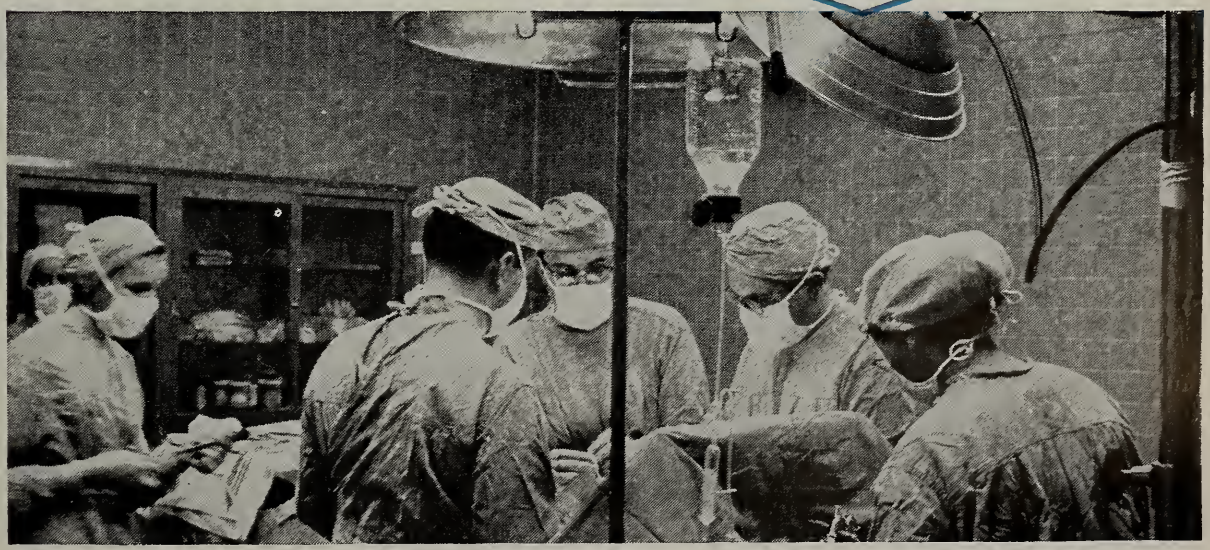
relieves tension and controls emesis in both postoperative and postpartum patients.

Recommended Oral Dose: up to 400 mg. daily in divided doses
Recommended Parenteral Dose: 25-50 mg. (1-2 cc.) I.M. q.4 h., p.r.n.

Supplied as: Vistaril Capsules—25 mg., 50 mg., 100 mg.
Vistaril Parenteral Solution—10 cc. vials and 2 cc. Steraject® Cartridges, each cc. containing 25 mg. hydroxyzine (as the HCl)

Pfizer *Science for the world's well-being* *Trademark

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc., Brooklyn 6, New York



TO WEIGH LESS

(Continued from Page 340)

wishing to distribute said pamphlet via his waiting room.

The choice of the pamphlet of the month will be based upon current interest, plus the authenticity and attractiveness of the pamphlet. Most of the pamphlets will be obtained from the American Medical Association.

The purpose of "the pamphlet of the month plan" is to encourage greater distribution of these valuable aids by better selection and more uniform distribution.

The pamphlet of the month for April, 1959, is "The Healthy Way to Weigh Less." All doctors desiring copies of this pamphlet, which is published by the Council on Foods and Nutrition of the American Medical Association, may write to: Public Relations Library, Michigan State Medical Society, Post Office Box 539, Lansing, Michigan.

COUNTY SOCIETIES OBSERVE DIABETES WEEK

A partial report of county societies which participated in the nationwide observation of Diabetes Week, beginning November 16, has just been received.

Most societies co-operated in distributing Dreypaks or offering free urinalysis in physicians' offices. Local diabetes committees also promoted educational news stories and co-operated in local TV or radio shows.

Participating county societies include Calhoun, Chippewa-Mackinac, Ionia-Montcalm, Kent, Macomb, Mason, Midland, Monroe, Muskegon, Saginaw and Wayne.

PROFESSIONAL CONDUCT EXPOUNDED

At a recent meeting in Detroit, J. J. Lightbody, M.D., of Detroit, Vice Speaker of the MSMS House of Delegates, addressed a group of young engineers and related his view on professionalism. Sharing the bill with him was an industrialist and religious leader.

The program was designed to provide the young engineer with three personal interpretations of traits that are fundamental to professional conduct. The presentations covered professionalism—its ethics, its attitudes, its personal values and its personal responsibilities.

MIDLAND CMS AWARDS SCIENCE FAIR WINNERS

Youths who prepared winning exhibits for the Ninth Annual Midland Science Fair received a plaque and a year's subscription to the *Scientific American* magazine from the Midland County Medical Society. Identical prizes were awarded to winners in the junior and senior divisions.

HIPPOCRATES AND MORE!

By ROBERT D. SWANSON, D.D.
President, Alma College
Alma, Michigan

Neophyte that I am in the mysteries of your profession, I followed my instinct and curiosity as an historian to what, by tradition at least, is supposed to be the cradle of your science. Having heard all of my life about the Hippocratic oath and the solemn obligations which are imposed upon anyone who takes it, I turned to my history books. And there I found a great deal that I had never known before. This fellow Hippocrates was quite a character. Apparently, he was sufficiently successful in building up a reputation for himself during his lifetime in Greece in the fifth century B.C. so that after his death a rather diverse and voluminous tradition settled about his name. Dante, in his Divine Comedy, makes Hippocrates almost a god. He calls him "a counsellor . . . whom nature made for the benefit of her favorite creature, man." Marcus Aurelius, on the other hand, a typical Roman, with characteristic Roman bluntness, says: "Hippocrates, after curing many diseases, himself fell sick and died." So he was human after all.

But Hippocrates, I submit, was more than a physician. And that is the nub of what I want to say to you here today.

Historians seem to be agreed that Hippocrates is to be remembered, not so much for his role in the practical arts of medicine or any of its basic sciences. Rather, it was his attitude toward health and disease and his stature as a Greek scientist that have placed him in the pantheon of great thinkers and teachers. I learned, for instance, that Hippocrates was among the first to suggest that disease comes from natural rather than from supernatural causes. I have heard many times this familiar phrase, "the healing power of nature," but not until I began to prepare these few remarks did I know that this is credited to Hippocrates. Apparently, Hippocratic therapeutics went considerably beyond the narrow confines of the science of medicine and the art of healing the sick.

Now all of this suggests something to me. Hippocrates was more than a professional. He was a man of his age, a member of what we would call the intellectually elite, and as such his influence upon his generation and upon history must be measured in broader terms than that of his profession.

The analogy should be clear and the point that I want to make with you should be obvious. Those of us who are known as professional men (and by

(Continued on Page 348)

Extracted from keynote address presented by Dr. Swanson at 1959 Annual County Secretaries-Public Relations Seminar, Detroit, January 31.

Now—All cold symptoms can be controlled



Provides Triaminic for more complete and more effective relief from nasal and paranasal congestion because of systemic transport to *all* respiratory membranes—without drawbacks of topical therapy.†

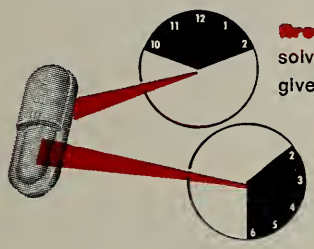
Provides well-tolerated APAP (N-acetyl-p-aminophenol) for prompt and effective analgesic and antipyretic action to make the patient more comfortable.

Provides Dormethan (brand of dextromethorphan HBr) for non-narcotic antitussive action on the cough reflex center in the medulla—as effective as codeine but without codeine's drawbacks.

Provides terpin hydrate, classic expectorant to thin inspissated mucus and help the patient clear the respiratory passages.

†Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

Special "timed release" design



First—the outer layer dissolves within minutes to give 3 to 4 hours of relief

Then—the inner core releases its ingredients to sustain relief for 3 to 4 more hours

also available for those patients who prefer liquid medication: **Tussagesic suspension**

Each TUSSAGESIC tablet provides:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Dosage: One tablet in the morning, midafternoon and in the evening, if needed.

Tussagesic® *timed-release tablets*

Contains* **TRIAMINIC *to* STOP *running noses*  *and open stuffed noses* ***orally***

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

HIPPOCRATES AND MORE!

(Continued from Page 342)

that I am not meaning physicians only)—we professionals have been just that and little more. We have abdicated what ought to be our leadership in the community by hiding behind what we conveniently call our professional status. We are lawyers, we are dentists, we are doctors, we are educators; and seldom do we meet apart from our professionalism. Here we are, supposedly the intellectually elite of America, who by training and experience ought to be convinced of the inestimable worth of human reason and the power of the intellect. But for whom, and for what?

Gilbert Highet, the noted historian and literary figure of Columbia University, has observed that most of us live with the idea that through serving one's own group one can benefit mankind. A nationality, a profession, a creed often commands all one's loyalty. And perhaps that is as it should be. On the other hand, there is the larger scene and the wider citizenship which each one of us is called upon to demonstrate. And, as members of one of the "learned professions" it occurs to me you have an opportunity by precept and example to lead us back to national health above and beyond the physical wellbeing of people.

Let me show you what I mean by our present state of health. You will recall the pessimism of Hamlet, Prince of Denmark, where he says: "The times are out of joint, O cursed spite that ever I was born to set them right!" That, you must agree, is more than a verdict of frustration and hopelessness. It is a tragic view of history, rendered in a mind that has ceased to think.

We have regarded Russians as "country bumpkins" in the whole area of general intelligence and learning. So intent have we been on watching the social and political aspects of the Communist revolution, we have failed to recognize that it is primarily an intellectual revolution. It has been rather disconcerting to discover that Russian students are actually learning something more than the "party line." They seem to have taken intelligence seriously. And all the while we thought the Kremlin was suppressing the accumulation of knowledge! It goes without saying that we know they are twisting the truth about a good many things. But apparently we have been so preoccupied with this side of their little scheme we have missed the hard, cold fact that among other things they plan to out-think us. And that, we know, can't be done with empty heads!

Strange, is it not, how it took a crisis of cosmic proportions to make us face the fact that learning and intelligence are something more than a franchise of democracy? If learning and intelligence are prerequisites for life in a dictatorship, particularly a dictatorship of dialectical materialism; how much greater is the imperative for serious, disciplined training of the mind that is to live in a democracy where initiative and ingenuity are the fruits of freedom.

Now believe me—this is not just a rhetorical question. It is the heart of the matter. Are we going to be a free people or aren't we? History is at the point of no return, and we have now to decide how we are going to run the race for survival. Will it be as free men, or not? Must the Russians call the ground rules? Do we have to play the game their way? Is freedom so delicate and human liberty so sensitive that they cannot stand the gaff of being challenged? Why are we so embarrassed and jittery these days? Why the sudden hysteria, the talk of crash programs and emergency measures?

I'll tell you why. Because, until a few weeks ago, we took our freedom too lightly. We spent so much time talking about it as a God-given right that we have failed to understand that freedom is also a human responsibility. We boasted of our emancipation, whereas we should have recognized that we were just unbuttoned! Not only are we soft-hearted—we have been soft-headed.

In the process. we have developed an easy tolerance for the Average. It has become a cult with us. We have glorified the Common Man as an expression of our age. Excellence of achievement and superiority of accomplishment are the objects of sneering contempt in a great many circles. For some strange reasons, we have failed to appreciate the fact that our democracy is the product of a strenuous intellectual revolution. By the same token, the freedoms which we prize and the institutions that we covet will remain healthy and strong only to the extent that we as a people develop our capacities to reason and to think.

The real issue before us is not the challenge of Russian supremacy, whatever and wherever that may be. This is important, to be sure. It is crucial, in fact. But it is not primary. The real question is: How much do we want freedom?

I spoke a few moments ago of Gilbert Highet. In the closing paragraph of his little book, "Man's Unconquerable Mind," he pays a magnificent tribute to the men of your profession and to the contribution which they have made, not only to the science of medicine but to the world at large. He speaks of a quiet and unpretentious laboratory that stands among the trees at Oxford—there Flory and his team perfected penicillin. He tells of Montpellier where Rabelais lectured on Greek medicine and modern anatomy. He describes that austere barrack in Paris, "busy, ugly and noisy," he says. But it is there that Pasteur and a host of other brilliant minds worked and taught.

He closes the book with these words:

"Even to tread the floor of such a room, knowing no more than the outlines of the work done there . . . is to dedicate oneself to the service of all mankind."



accelerate convalescence with nutritional therapy

Sustagen®

Complete food, Mead Johnson

powder

When you prescribe Sustagen during convalescence, you help fulfill the critical needs of your patients for increased amounts of calories, protein and vitamins. "In some instances of acute illnesses, injury, or surgery, intensive nutritional therapy may be the deciding factor in the outcome."[1] Sustagen, because it generously supplies all known essential nutrients in convenient concentrated form, helps speed recovery.

Mead Johnson

Symbol of service in medicine

[1]Halpern, S. L.: Ann. New York Acad. Sc. 63: 147-164 (Oct. 28) 1955.

SU-159M

AMA Washington Letter

THE MONTH IN WASHINGTON

Contrary to the usual procedure in a first session, the 86th Congress this year already is getting on with its work, particularly in health fields. In past Congresses, not much is accomplished the first session, with most bills held over to the second, which always is an election year.

The session was only weeks old when action was under way. Here are some of the developments, portending enactment before adjournment of a number of bills:

1. After hearings, a subcommittee of the Senate Banking and Currency Committee reported favorably on a housing bill that contained provision for mortgage guarantees for proprietary nursing homes. Subsequently, the measure was passed by the Senate.

At this writing the House is at work on another housing bill that also contains the nursing home loan section. With House passage assumed, the question is whether the bill (containing more money than the White House wants spent) will be vetoed, and if vetoed whether it can be enacted anyway by two-thirds majorities in both houses.

2. Without bothering with hearings, the House Ways and Means Committee overwhelmingly approved the Keogh bill to encourage retirement plans for the self-employment. It acted in line with the committee's established procedure to quickly reapprove bills that passed the House the previous Congress, but not the Senate. The Keogh bill is identical with a measure that easily cleared the House last session but lost out in the Senate.

3. Driven forward by Chairman Carl Vinson of the House Armed Services Committee, legislation to extend the regular and doctor drafts four years rolled through the House. However, indications were the Senate would take its time and give careful consideration to the need for a four-year extension.

4. The Senate Labor and Welfare Committee, under the leadership of Chairman Lister Hill (D., Ala.), demonstrated its interest in legislation for the aged. Senator Hill named a subcommittee to make a full year's study of problems of the aged, taking in housing, employment and recreation, as well as medical aspects.

Chairman of this subcommittee is Senator Pat McNamara, Detroit Democrat. Other Democrats are Senators John Kennedy of Massachusetts, Joseph Clark of Pennsylvania and Jennings Randolph of West Virginia. Republicans are Senators Everett Dirksen of Illinois and Barry Goldwater of Arizona.

5. At the same time, three members of the standing health subcommittee of the Hill Committee, Senators Jacob K. Javits of New York, Clifford B. Case of New Jersey and John Sherman Cooper, all Republicans, asked Congress to authorize a two-year study of the health problems of the entire population. If approved by Congress, the investigation would look into the quality and quantity of health services, problems of extending health insurance, special problems of the aged and minority groups, and the distribution of health services.

* * *

NOTES: Fifty-four Senators are supporting legislation that would project the U. S. farther into the international medical picture. It would set up an Institute of International Medical Research as part of NIH, establish an advisory council, and authorize spending of $50 million a year for research, part of it to go to foreigners in the form of grants.

Medicare has not been able to keep within the $72 million "ceiling" recommended by Congress for the present year. Through the Navy it is asking $6 million more. In addition, Army and Air Force will shift funds to meet the bill, estimated at $93.6 million. The budget asks $89 million for next year, in expectation that restrictions begun in October will bring a saving of between $4 million and $5 million.

Medicine has won an argument within the new Federal Aviation Agency. As a consequence, FAA's civil air surgeon will assist the administrator in setting standards for fitness, direct physical examination and inspection programs, advise on research needs, and evaluate all of FAA's medical personnel plans.

The President's health budget, now under scrutiny in Congress, is expected to be substantially increased. As an example of the White House efforts for economy, Mr. Eisenhower recommended $101.2 million for Hill-Burton hospital construction grants, in contrast to $186.2 million HB has for the current fiscal year.

Through the Civil Service Commission, the Federal government is attempting to recruit physicians for service in this country and abroad. Salary ranges from $7,510 to $12,770.

The Administration is pressing Congress to pass legislation giving the U. S. power to regulate coal-tar and other colors in foods, drugs and cosmetics. One objective is to require that manufacturers demonstrate that the colors are harmless before the products can be put on the market.

A workhorse "mycin" for common infections



respiratory infections

prompt, high blood levels

consistently reliable and reproducible blood levels

minimal adverse reactions

With well-tolerated CYCLAMYCIN, you will find it possible to control many common infections rapidly and to do so with remarkable freedom from untoward reactions. CYCLAMYCIN is indicated in numerous bacterial invasions of the respiratory system—lobar pneumonia, bronchopneumonia, tracheitis, bronchitis, and other acute infections. It has been proved effective against a wide range of organisms, such as pneumococci, H. influenzae, streptococci, and many strains of staphylococci, including some resistant to other "mycins." Supplied as Capsules, 125 and 250 mg., vials of 36; Oral Suspension, 125 mg. per 5-cc. teaspoonful, bottles of 2 fl. oz.

new

CYCLAMYCIN®

Triacetyloleandomycin, Wyeth

PHYSICIANS' COUNCIL FOR NUTRITION ON CHILD HEALTH

Conforms to Code for Advertising

Wyeth®
Philadelphia 1, Pa.

Editorial Comment

120 YEARS OF SOCIAL SECURITY

Our medical scientists have apparently suffered a shocking setback. Having lugged the average American up to the average age of seventy, they are now confronted with the spectacle of an Iranian who claims to be 185 and who may be, according to investigating doctors, from 158 to 188.

Inasmuch as the gentlemen in question suffers only from a weakness in the eyes, ears and some nerves—a finding which could be made regarding most of us only one-quarter of his age—this 1773 model presumably could qualify to drive a 1959 model.

Now, just supposing the old-time Persians had been following our modern practices, and had made it impossible for Sayed Ali Saleh Kutahi to get a new job as a rug weaver because he was "too old" at sixty-five—why, Kutahi would now be in the process of enjoying his 120th year of retirement on Social Security!

It's enough to make Washington think.—*B. C. Evening News,* December 29, 1958.

AMERICAN MEDICAL KNOW-HOW AIDS MENTAL HEALTH ABROAD

With more than half our hospital beds occupied by mental patients, Americans should be watching with keen interest a new medical study about to be undertaken in the Republic of Haiti.

The experiment is calculated to determine whether, in many cases of mental illness, a drug may not be a more effective conditioning agent for therapy than a bed.

As reported by Science News Service, Nathan S. Kline, M.D., of Rockland State Hospital, New York, is co-operating with the Haitian Government in a clinical substitution of tranquilizers for hospitalization in treating Haiti's six to nine thousand mentally ill. The drugs are being made available by pharmaceutical companies in the United States.

The study was suggested by results of findings from similar experiments in mental hospitals in this country. It is hoped that the disturbed patient, under the influence of the new drug therapy, can be treated psychiatrically in out-patient clinics, meanwhile remaining a member of the community with the personal dignity which that freedom implies, and saving the government untold millions in hospital care.

As Dr. Kline points out, a 1,000-bed hospital costs $15,000,000, compared to which the cost of tranquilizing drugs would be a pittance.

Perhaps this may turn out to be one case in which a forward-looking experiment in a so-called "under-developed" country may work in reverse, says the HNI, and we in the United States may end up borrowing a page from Haiti's book of accomplishment.—*Health News Institute,* January 21, 1959.

GO SEE A DOCTOR

Even in this age of wonder drugs and surgery on the living heart, it is not uncommon to hear complaints about the failures of medicine. In some circles, it is popular to note with considerable scorn that the doctors can't even cure a cold or provide a salve that will make warts disappear.

It is true that medical science has not yet come up with sure-fire remedies for these minor ailments —or for cancer, heart disease and a number of other killers. But complaining about the ineffectiveness of medicine is about on a par with groaning that automobiles and jet planes are primitive means of transportation.

So they are, when compared with science fiction dreams of how men will get about a century hence. It is unfair to make such comparisons, however, without also noting that today's planes and cars are beyond all but the most extravagant dreams of half a century ago. The same can be said of medicine.

Many of the infectious diseases that often meant death at the turn of the century have now been virtually wiped out. Pneumonia, diphtheria, smallpox, scarlet fever, typhoid fever—these and others have almost lost their power to kill and maim. Poliomyelitis is coming under control. Phalanxes of research are storming the dread citadels of cancer, mental disease, coronary ailments.

The doctors don't know everything about human ills and how to deal with them. Yet they know much more, and are able to do vastly more, than was the case even a generation ago. Whoever carps about the failures of medicine may himself be in need of a little medical attention.—*Manistee News-Advocate,* January 6, 1959.

VETERANS BENEFITS PROGRAMS

It's time to take a close look at the sweeping range of *Veterans Benefits* programs now costing taxpayers—including veterans themselves—$5 billion annually.

New benefits which would push deficit spending still higher and increase inflationary pressures are sure to be proposed in the new Congress. Mean-

(Continued on Page 354)

re-evaluating tranquilizers?

READ WHAT CLINICIANS ARE NOW SAYING ABOUT ATARAX®

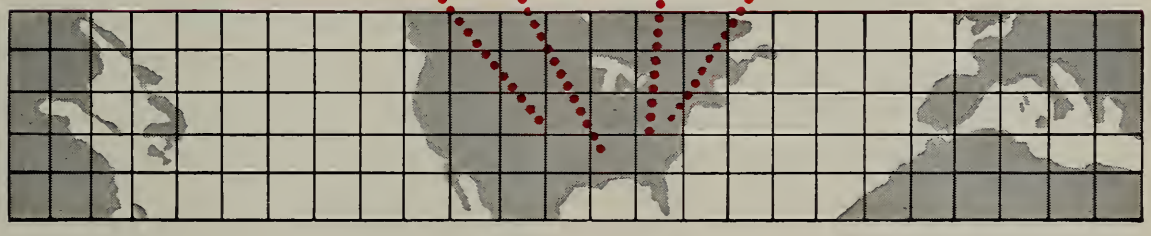
(brand of hydroxyzine)

IN GERIATRICS
"ability to decide correctly has increased, while the illogical response to anxiety has diminished."[1]

IN WORKING ADULTS
"especially well suited for ambulatory patients who must work, drive a car, or operate machinery."[3]

IN PEDIATRICS
"ATARAX appeared to reduce anxiety and restlessness, improve sleep patterns and make the child more amenable to the development of new patterns of behavior...."[2]

IN GENERAL
ATARAX is "effective in controlling tension and anxiety.... Its safety makes it an excellent drug for out-patient use in office practice."[4]



INVESTIGATORS AGREE ON OPTIMAL ATARAX DOSAGES

For childhood behavior disorders	10 mg. tablets Syrup	3-6 years, one tablet t.i.d. over 6 years, two tablets t.i.d. 3-6 years, one tsp. t.i.d. over 6 years, two tsp. t.i.d.
For adult tension and anxiety	25 mg. tablets Syrup	one tablet q.i.d. one tbsp. q.i.d.
For severe emotional disturbances	100 mg. tablets	one tablet t.i.d.
For adult psychiatric and emotional emergencies	Parenteral Solution	25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Smigel, J. O., et al.: J. Am. Ger. Soc., in press. 2. Freedman, A. M.: Pediat. Clin. North America 5:573 (Aug.) 1958. 3. Ayd, F. J., Jr.: New York J. Med. 57:1742 (May 15) 1957. 4. Menger, H. C.: New York J. Med. 58:1684 (May 15) 1958. 5. Coirault, M., et al.: Presse méd. 64:2239 (Dec. 26) 1956. 6.Bayart, J.: Presented at the International Congress of Pediatrics, Copenhagen, Denmark, July 22-27, 1956.

ATARAX®

Rx PFIZER

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

VETERANS BENEFITS PROGRAMS

(Continued from Page 352)

while, an opportunity to improve the present benefit system in ways that not only would provide better care for deserving veterans, but would also greatly reduce federal spending, is being ignored.

One program to which the Chamber now is giving careful study provides hospital care for veterans whose injury or illness has no connection whatever with military service. These veterans now occupy about two-thirds of the more than 120,000 beds in Veterans Administration hospitals.

To be admitted to a VA hospital, a veteran whose disability has no service connection, need only submit a statement of liabilities and assets and an affidavit of inability to pay for hospital care, though such inability is a matter of opinion in many cases, and VA lacks clear-cut legal authority to check these affidavits.

Even veterans discharged after only 90 days service can qualify for free hospital care, so long as beds are available, though their illness has nothing to do with military duty.

No one would deny any veteran whose disability occurred in line of duty all the free care he needs.

But it seems clear that such veterans could be given better care if VA hospitals did not have to carry such a heavy case load of veterans whose medical problems occurred outside the line of duty.

Chamber committees are gathering the facts on these programs and will bring them to the attention of the new Congress.—*Washington Report*, October 17, 1958—Chamber of Commerce of U. S.

ANOTHER INFLATION SPIRAL TWIST

Blue Cross-Blue Shield rates will go up again in January—this time by 18½ per cent. Health insurance rates never seem to climb by small percentages.

The rates thus will add to the spiral of inflation, about which, we're often told, most people are growing increasingly bitter and frustrated. This dwindling value of the dollar bill has everyone upset, particularly those older persons who must live on fixed incomes.

We've not seen many studies of the effects of inflation on personal saving habits, but if the dollar bill continues to slip it will be hard to answer the question, "Why save a dollar now if it will be worth only 75 cents when I need it?"

Only recently we heard Samuel Lubell, the noted pulse-taker of public opinion, comment that if anyone wanted to start a third political party, it could best be done by appealing to the almost universal desire for stable money and an end to inflation.

In the case of Blue Cross rates, the public has little choice but to pay. Their options on health insurance are very limited because of the group coverage aspect of Blue Cross operations. Health insurance rates, usually deducted from pay checks, have come to be regarded almost as a tax, over which people have no control. The direction in which this leads is unmistakable and disturbing.

It may be that health insurance is reaching a point where individuals who wonder if they are facing diminishing returns will refuse to pay. If this happens, health insurance organizations may be forced to cut back their expenditures—and their benefits.

This possibility apparently is not seriously considered by those who determine rates.

The question that then arises is what would the public's reaction be to a cutback in benefits instead of an increase in rates?—Editorial, *Detroit Free Press,* November 17, 1958.

HOSPITAL SERVICE IN CANADA

Canada's national hospital insurance program, in operation only eight months, now covers 10,700,000 of the country's 17,500,000 population.

By next January 1, all of Canada's ten provinces except Quebec are expected to be enrolled.

The Federal Government and the participating provinces split about 50-50 on the costs of standard ward hospital care and diagnostic services, the basic features of the program. Benefits are available to all residents of a participating province.

The Government expects the insurance plan will cost it $160,000,000 in the next fiscal year starting April 1. That appropriation, a $100,000,000 jump from the current fiscal year, allows for all provinces except Quebec.

The provinces raise their share of the cost in various ways.

Newfoundland, British Columbia and Alberta raise their funds from general tax revenues. Novia Scotia has a special 3 per cent sales tax. Ontario, Manitoba and Saskatchewan raise most of their health funds by collecting compulsory premiums.

In Ontario, the premium is $2.10 a month for a single person and $4.20 for a family.—*Detroit Free Press,* March 5, 1959.

Editor's Note: Blue Cross insurance auditors and advisors about a year ago predicted the closing of the program in most of the provinces of Canada because of the nationalization of the program by the Federal Government, and its later adoption by the individual provinces. This news report shows progress.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 MARCH, 1959 NUMBER 3

Washtenaw County Medical Society

A Brief Account of Its Origin and Growth

By Frederick A. Coller, M.D., and
Richard A. Sinnott Jr., M.D.

Ann Arbor, Michigan

THE evolution of a medical society is governed by and reflects the state of scientific knowledge at any one time and also the social and economic environment in which it exists. During the formative years of this republic, medical societies came into being in response to a need for some type of regulatory agency to promote high standards of medical practice, to try to prevent the growth of quackery, and to foster medical education. It was at such a time, and for these reasons, that the Washtenaw County Medical Society was formed.

Michigan was created a territory on July 1, 1805, with the approval of Congress and of Thomas Jefferson. A small town, Detroit, was known to the world since a settlement had been started there in 1701, but the rest of the territory was still primitive forestland with but few inhabitants. A stable government was slowly being established when it was disrupted by that unhappy war called 1812. Michigan's population was small. In the great western migration that was settling the states to the south, Michigan was bypassed because of its comparative inaccessibility and the rumors of its sterile soil and scanty resources, issuing from the erroneous reports of the first official surveyors. Lewis Cass was appointed governor in 1813; realizing the needs of this wilderness when the war was over, he began the construction of roads that at first followed the ancient Indian trails, leading from Detroit to the West. "Walk in the Water," the first steamboat on the Great Lakes, began operation in 1818. Other ships, steam and sail, were ready to bring settlers when the Erie Canal was completed in 1825. In 1820 General Cass led an expedition around the Northwest Territory, making treaties with the Indians, observing the natural resources of the region, and mapping its geography. It was the act of a statesman, but served also as a gigantic real estate venture, securing the land from the Indians and later making known its charms and potentialities to prospective settlers.

The Territorial Medical Society

Even though this area was not on the main route of westward expansion, settlers were coming to the territory, and with them came a few doctors. These were a heterogeneous lot; some had had an education in medical school or with a preceptor, others were ignorant quacks and humbugs. On June 14, 1819, the governor and judges of the territory deemed it wise to pass an act to incorporate medical societies for the purpose of regulating the practice of Physic and Surgery in the Territory of Michigan. This act was adapted from the law regulating practice in New York and gave certain limited powers to the Territorial Society. These were the powers to charter county societies, to examine students desiring to study under preceptors, and to grant licenses to practice medicine within the Territory. Fines

could be set for transgressing the law, and court action could be denied to practitioners seeking to collect payments due from illegal practice. On June 23, 1820, there appeared in the Detroit *Gazette* the following notice:

> For the information of the public, you are requested to state in your paper, that in conformity to a law regulating the Practice of Physic and Surgery, and for other purposes, a Medical Society has been some time organized in the territory, which promises much future usefulness in prohibiting quackery, in this most important of all professions to the lives and health of our citizens.
>
> The following is a list of the officers and members of the "Medical Society of Michigan," to wit:
>
> Dr. William Brown, President
> Dr. Stephen C. Henry, Vice President
> Dr. John L. Whiting, Secretary
> Dr. Randall S. Rice, Treasurer
> Dr. Ebenezer Hurd
> Dr. William Thompson
> Dr. Henry Conant
>
> Doctors Hurd, Henry, and Rice are the censors, or Committee of examination for the current year.

The by-laws indicate clearly the functions, interests, and objectives of the Society. Diplomas from medical schools were usually accepted, but since the main means of securing medical education was apprenticeship, the act provided for a period of three years of study "with one or more reputable practitioners." The student was to be twenty-one years of age or over and of good moral character. Article 16 of the by-laws states that, "Any member who shall . . . pretend to know and practice with any nostrum may be reprehended or expelled by two-thirds of this Society at any meeting." Another provides for a pooling of knowledge: "Each member shall be expected to communicate annually what have been the prevailing diseases in the circuit of his practice during the preceding year and what mode of treatment has been most successful." In 1828 it was decided that members thereafter communicate their experiences in writing, to be entered on the record and placed in the archives. That some of these professional observations were fruitful is attested by a note in the minutes of January 8, 1828:

> Letter dated August, 1827, from Dr. William Beaumont of the U.S. Army, an honorary member of this society, accompanied by the report of an interesting case of wounded stomach which occurred in his practice, together with some experiments on the digestive powers of the stomach, was read.

Thus the Medical Society of Michigan was concerned with medical education, with examination and registration of practitioners, with public health, and with the exchange and diffusion of scientific knowledge.

Origin of the Washtenaw County Society

Washtenaw County was created by Governor Cass in 1820, but it was then so sparsely settled that such government as it needed was conducted from Detroit, the capital of the territory. In accordance with the Medical Act, branch societies were established as fast as counties were designated. Washtenaw County, the first branch to be designated, was chartered in 1827. Permission was granted Drs. Cyril Nichols, Rufus Pomeroy, William Kitteridge, and Daniel Low, to form the Washtenaw County Medical Society. We know nothing of their meetings or other activities until we read in *The Emigrant,* Vol. III, No. VI:

> Washtenaw County M. T. December 28, 1831—The Washtenaw County Medical Society will meet at Ann Arbor on the first Monday in January next at 10 o'clock a.m. S. Markham, Sec.

Nothing more is heard from the Society until there appeared a notice in the *Michigan Whig,* Vol. I, No. VII, Ann Arbor, Washtenaw County M. T. January 15, 1835:

> Medical Notice. An adjourned meeting of the Washtenaw Medical Society will be held at the House of E. Mundy on the 26th instant at 10 o'clock a.m. Those who wish to become Members of the Society, are requested to attend. If it is not convenient, to forward their credentials to some member of the Society previous to the meeting, a general attendance is requested and at as early an hour as possible as there will be business of importance to be transacted. Ann Arbor, January 6, 1835. A. Platt, Secretary.

One can probably safely assume that the Society held many meetings, but unfortunately we find as yet no record of them.

The growth of the Washtenaw County Medical Society was at first slow, halting, at times interrupted completely. Prominent among the forces impeding its progress were many medical cults that fought one another but united to oppose the regulars.

Conditions Influencing Medicine in the Territory of Michigan

One cannot appreciate the many difficulties that faced these pioneer physicians in their attempts to

bring order to their profession without examining the state of medical practice, knowledge, and education at that time. To amplify these points let us examine medical practice in general as it existed then, since it will also apply specifically to the local activities under discussion.

By 1800, there had been established in the United States five medical schools. They were supplementary to the apprentice system that had provided most of our physicians since the early days of the colonies. It was the rare student who had the means and opportunity to study abroad, but medicine, even at its best, had so little to offer at that time. Smallpox had been potentially conquered by Jenner through the publication in 1798 of his work on cowpox, but his concept had not been universally accepted. Other infectious diseases were common and were killers. In the United States the teachings of Benjamin Rush were popular—they were emphatic, didactic, and authoritative. His system of treatment was simple; the results were quickly obtained and readily observed. He "bled, purged, and puked 'em," and while his disciples were loyal and many in number, the results of this treatment left much to be desired.

After 1800, numerous medical schools were established in the course of the population migration to the west. A few of the schools survived, but most of them were short-lived. Surgery was at its simplest stage, consisting of the care of wounds, injuries, and infections. The occasional genius like Ephraim McDowell and Nathan Smith removed ovarian cysts, and cut for stones.

Most of the early licentiates of the Medical Society of Michigan came from the same area as did the settlers—that is, from New York State and New England. Diplomas were presented to the Medical Society from the Medical College of Vermont, the University of Pennsylvania, University of Vermont, Medical College of Burlington, Vermont, Fairfield Medical College, Castleton Medical College, College of Rhode Island, College of Physicians and Surgeons, Western District of New York, Yale University and others. Many of these schools soon closed their doors.

Regular medicines were so unpleasant and so ineffective against most diseases that one cannot wonder that cults were developed not only by quacks, but also by physicians dissatisfied with orthodox therapy. A cult was at least an experiment, and although it was not based on reason, it was a natural consequence of the failures and the disagreeable features of conventional practice.

Pioneers were, and had to be, hardy and self-dependent people, and doctors were considered a luxury, not a necessity. Many "doctor-books" with a variety of titles were popular in the settlers' cabins; the basic theme was "let every man be his own physician." In the *Michigan Herald,* September 20, 1825, appeared an editorial on the economic need of the region, concluding with the sentence, "Every industrious mechanic, who comes here from abroad, is a valuable acquisition and is of more immediate utility than a ship load of lawyers and doctors."

Many physicians acquired other means of support, such as a drug store, a lumber yard, a grocery store, or acted as agents for patent medicines to enlarge their income, which seems to indicate that the practice of medicine in itself was not particularly lucrative.

The difficulty of securing a physician in time of need, because of the lack of roads and the isolation of many homes, gave a tremendous impetus to the manufacture and sale of an infinite number of patent medicines. The National Patent Law, passed in 1790, proved for a time to be a bonanza for those with imperics and formulas for the treatment of disease.

As an example, Samuel Thomson, a farmer in New Hampshire who lacked sufficient education to become apprenticed to a doctor, adapted some ancient medical theories to his own purposes and created a system based on the use of botanic remedies and a vapor bath. In 1813 he had six of his remedies patented. These rights were sold to his disciples at a real consideration.

In support of Thomsonian doctrines, the *Botanic Luminary,* a monthly periodical, was established in Saline in 1836 by Hiram Wright, an ordained elder of the Baptist Church. Agents were appointed in the surrounding towns. Attempts made by them to form a state organization were not successful. A constitution was drawn up and a petition drafted for repeal of the "odius" medical laws of the state. The Thomsonian advocated that each medical society "regulate its own practice."

The botanico-medical movement received new impetus through the founding of another therapeutic cult, the Eclectic, by Wooster Beach, who had studied regular medicine in the University

of the State of New York. He disagreed heartily and vociferously with the principles of the regulars and based his new philosophy of treatment on a wide use of botanicals. His followers soon overshadowed the Thomsonians in popularity and zeal. The Eclectic Medical Institute was chartered in Cincinnati in 1845, and by 1893 there had been eighteen such schools incorporated, largely in the Middle West. For half a century or more their graduates practiced throughout the country, especially in midwestern states. Michigan had its share, although Ohio remained the stronghold.

Starting about this time, perhaps imitating the botanic therapy, were a large number of patent remedies from "vegetable" substances. One can have sympathy with those patients who chose to be treated by these botanic derivatives, most of which were not unpleasant, being tinctures having a strong base of alcohol. One of the authors (F.A.C.) recalls seeing, when he was very young, the walls of his grandfather's barn lined with stacked cases of empty bottles that had originally contained a widely-advertised vegetable compound. This gentleman was a deacon of the church, a stalwart for temperance, and he would have been shocked had he known that he was taking 90-proof liquor pleasantly flavored with vegetable compounds other than corn. Because of this—or perhaps because of his fine physique—he was hale and hearty until he was eighty-two years old. As a contrast with this happy medication we read in the autobiography of David Ward, a medical student who later became a lumber baron, that in 1840 he developed a pleurisy and was treated by Dr. Zina Pitcher, one of the leading citizens, educators, and physicians of Michigan, by "severe counter-irritation on the chest by means of Spanish fly blisters, tartar emetic irritations, setons to the right side and tartar emetic solutions taken internally three times daily." He survived, but with a painful convalescence.

From 1819 to 1830, the minutes and records of the Michigan Medical Society were carefully entered and the credentials of each candidate noted, but after that date interest waned. The meetings frequently were adjourned because a quorum was not present, and toward the end of its existence (1851) only names and dates of licensure were recorded. During the territorial period, about 200 physicians were licensed to practice by the parent body. The number licensed by the branch societies is not known, and insofar as one can determine, the Medical Society of Michigan fulfilled its duties in an admirable manner considering the vagueness of the objectives and the feeble powers accorded to it.

In 1823 the village of Ypsilanti originated, and in 1825 Ann Arbor was plotted by John Allen and John Rumsey. Dexter, Manchester, Milan, Chelsea, Lima Center, and other villages were started about that time. We get some interesting glimpses of medical practice in territorial days in Washtenaw County from announcements and advertisements in the newspapers, for example the *Emigrant,* Vol. II, No. XXI, Washtenaw County M. T. April 13, 1831:

> Surgery—The subscriber would inform the people of Washtenaw and neighboring counties, that he has procured a complete assortment of surgical instruments and preparations among which are amputating, trephining, obstetrics, and cupping instruments and improved splints of different kinds for fractures, electric machines, etc. etc., and is ready to attend to all calls in the surgical department of his profession, Ann Arbor, April 1, 1831, Samuel Denton.

Denton had graduated from Castleton Medical College, Vermont, in 1825. We know that he worked hard in his practice which became a large one, since we note in the *Michigan Whig,* Vol. I, No. 24, May 14, 1835, on page 1:

> Doctor Denton has removed his office to the Court House in the South Room on the East side of the hall. Those who call after bedtime, will please knock at the window if the door is fastened. April 2, 1835.

In 1850, he was Professor of Medicine and Pathology in the Department of Medicine and Surgery in the University of Michigan. In the *Michigan Whig,* Vol. I, No. II, February 12, 1835, we find a pithy notice of intent to practice that is so fair it could not offend:

> Dr. Curley—Late of Ontario County, New York, Office at O. Risdon's Hotel. If you have need, try him, if you like him, retain him—if not dismiss him. Saline, Washtenaw County, January, 1835.

Specialization in practice rears its head in a notice in the *Michigan Whig*—and *Washtenaw Democrat,* Vol. I, No. 38, August 29, 1835:

> Notice—Doctor Jefferies, thankful for past favors, would inform the citizens of this territory, that he has associated with him in his business, Doctor Cowles of New York. The undersigned having an excellent supply of Surgical Instruments, and as they trust, a good knowledge practical and experimental of their profession, flat-

ter themselves that they shall be able to give prompt successful and satisfactory attention to all calls with which they may be favored. Particular attention will be paid to the diseases of the EYE and EAR in all varieties. Office 2 doors East of Washtenaw House. C. A. Jefferies, M. H. Cowles, Ann Arbor, (upon Huron), July 17, 1835.

Today there are other methods of establishing a practice, but those men were not lacking in confidence and initiative, and one can only hope that their skills were equal to their promise.

Medicine in the New State of Michigan

In January, 1837, Michigan became a state with a population that had grown from 7,000 in 1820 to 174,467 in 1837. In 1838 the medical laws were altered by the legislature in a deplorable but understandable fashion. To meet the leveling desires of the lobby of quacks and cults, the standards of practice were dropped again. To quote from the presidential address of Dr. Leartus Connor to the Michigan State Medical Society in 1902, "as the people were in a frame of mind to be robbed, the quacks gathered to do the job in accord with the axiom where the carcasses lie there do the vultures gather." In 1846 another revision of the laws repealed that portion of it that restricted the right of unlicensed physicians to collect fees. Physicians from other states were admitted to practice without formality, thus for the first time inaugurating the era of "free trade" in medical practice. At this time the Supreme Court of Michigan rendered a remarkable decision in somewhat this meaning: as related by Dr. Zina Pitcher, a doctor is any person calling himself such. This meaning and intent effectively abolished the reason for the Michigan Medical Society, since examinations were unnecessary and standards were gone.

In the State legislature the selfish minority groups lobbying for cults, quacks, and patent medicines influenced for the moment the public and their representatives to destroy all safeguards of the character and education of those who practiced medicine.

One of the reasons for the failure of the state society as a regulatory agency was the encroachment upon its prerogatives by the various cults which also formed societies and claimed the right to grant licenses. The best explanation was offered by Dr. Zina Pitcher, a member of the Michigan Medical Society from 1835 and president in its last seven years: presenting a notice of the Territorial and State Medical Society in the *Peninsular Journal of Medicine,* I, May, 1854, he states in part:

> The history of this society furnishes one evidence of a general truth that the consent of the governed, in order to have any binding validity, must be an exposition of the popular sentiment, however erroneous that sentiment may be.

The Medical School of the University of Michigan was organized and opened to students in the autumn of 1850. Its small faculty, participating in the activities of the Society, inevitably had a strong influence on its character. The second stage of the evolution of the Washtenaw County Medical Society started with a meeting held in Ann Arbor, March 30, 1853, and ended in an adjourned meeting at the same place in 1860. The medical profession was on its own, its standards destroyed by legislative action. Its efforts to fight back were at that time stultified by a larger warfare that was in the offing. The country was torn by arguments, debates, soul-searching, and finally by Civil War. Michigan gave freely and generously of troops of the very highest quality and gallantry, while the physicians of the state went with them and cared for their sickness and their wounds.

Reincarnation of the Washtenaw County Society

However, at the end of the war the battle for medical standards was immediately renewed. The origin of the present Washtenaw County Medical Society is recorded in an old calf-bound book that reposes now in the Michigan Historical Collection. About the middle of June 1866, a call was issued for a convention to meet at the Medical College in Ann Arbor on Wednesday, June 27, at 9 a.m., for the purpose of organizing a medical society, by the physicians of Ypsilanti and Ann Arbor.

The convention was held at the time and place appointed, and members of the profession were present from Ann Arbor, Ypsilanti, Saline and York. The convention was organized by calling Dr. F. M. Oakley of York to the chair, and appointing Dr. H. S. Cheever of Ann Arbor as secretary. On motion, Drs. Palmer, Douglass, and Cheever were appointed as a committee to draft a constitution. These three men were members of the faculty of the Department of Medicine and Surgery of the University. After a lively and interesting discussion by Drs. Batewell, Doug-

lass, Palmer, Sager, Bobbitt, Breakey, and Prescott, and the proposal of some amendments, the constitution submitted by the committee was adopted. Appropriate by-laws were next adopted. The following officers were elected for the ensuing year:

President:	A. B. Palmer, M.D., Ann Arbor
Vice President:	E. Batewell, M.D., Ypsilanti
Secretary:	H. S. Cheever, M.D., Ann Arbor
Treasurer:	E. Ball, M.D., Saline
Censors:	A. Sager, M.D.; S. H. Douglass, M.D.; and William Hewitt, M.D.

It is fortunate that Dr. Henry Sylvester Cheever, was appointed secretary, for many reasons. His handwriting was perfect script, easily legible, and his ink was black and persists in its clarity until today. His notes make events clear until at the twenty-first regular meeting of the Washtenaw County Medical Society on Friday, June 30, 1871, he was elected president. After that the handwriting of the secretaries varied from fair to illegible; the ink they used varied in quality so that some sheets in the record are now blank.

The constitution followed the usual form. A few points in its bear comment. Anyone wishing to become a member had to be approved by the censors. As already mentioned, the territorial law that empowered censors to pass on the qualifications of those wishing to practice medicine had been abrogated by the legislative action. However, the examination for those applying for membership in the society was continued. This had no legal force but undoubtedly was a power for good since it maintained in the Society the high standards of conduct that the profession inherited from its past. The candidate had to receive a two-thirds vote of the society, and then sign the constitution and pay the treasurer the sum of one dollar. It was a dereliction of duty for any member to admit to his office as a student of medicine any person who did not first present a certificate of qualification as provided for in the constitution. In the light of our interest in standards of education, it is worthwhile to consider in detail article VI, Section 5, dealing with the duties of censors:

> It shall be the duty of the Censors to examine all applicants for membership in this Society and to report the results of such examination to the Society at its next regular meeting. It shall also be their duty to examine all persons applying for admission to the office of any member of the Society, as students of Medicine and to give certificates to only those that pass the following qualifications: A good moral character. A good English education including the art of composition, a respectable amount of English literature and the chief elements of algebra, geometry and natural philosophy, also a fair knowledge of the natural sciences of chemistry and such acquaintance with the ancient languages as will enable them to read current prescriptions and appreciate the technical language of the Natural Sciences and Medicine.

In Article IX it was stated that the Code of Ethics of the American Medical Association would be followed.

The by-laws clarified some points: "At every meeting of the Society the President may appoint two members to read original essays on some medical subject at the next succeeding meeting or at the annual meeting. However, any member may present such essays or remarks on topics of interest to the profession at regular meetings." A by-law to the effect that "an essayist failing to present or appear will be fined five dollars" was defeated. It was also stated that "no professional intercourse shall be had with any persons practicing medicine within the County of Washtenaw who is not a member of this Society." Also it was the duty of each member to keep a written record of all cases in his practice and report diseases that occur therein.

Finally, and importantly, By-Law XI stated: "It is the duty of members to maintain the dignity of the profession and to give information to the Society of any infringements of the Code of Ethics or of any misconduct of the members worthy of attention."

Ten members were a quorum. This was changed to six in 1878, not a cheery comment upon attendance over the years. In the first year of this society, that is, in 1866, nineteen members signed the book. Eleven were graduates of the University of Michigan; two of Castleton, Vermont; one, College of Physicians and Surgeons of Western New York; one, Jefferson Medical College; one, University of Vermont; one, Cleveland Medical College; one, London, England; and one Germany. From 1866 to 1868 there were at most thirty-five members, of whom one died, and eleven moved away, always to the west in search of greener pastures.

It is interesting that the educational qualifications set down for candidates for apprenticeship training in Article VI are nearly word for word

those expressed in resolution adopted by the American Medical Association during its organizational meeting in Philadelphia in 1847. It is also significant of the times that the Washtenaw County Medical Society in its constitution should set forth in some detail the qualifications necessary to those who wished to receive an education in medicine by the apprentice system in the office of a physician, when there had been for the past sixteen years a well-attended, popular, and then well-known medical school in Ann Arbor. Nearly half of the members of the Society were members of the faculty, yet nothing is said in the Constitution about formal medical education. In the absence of a state law governing practice, it seems clear that orthodox medicine in its national, state, and county societies made a determined effort to maintain and improve educational standards through example and inspiration arising from the medical profession rather than from the legislation that had thus far failed in this particular objective. It was a long battle between the desires of the profession to set high standards of health supervision, and the inertia and ignorance of the public and its representatives in the legislature who had for years little or no interest in such standards. Laws have lagged and even today lag behind the desires and advice of the medical profession to give the best of science to the care of the health of the people. There was a period of nearly sixty years in Michigan when the moral force exerted by the county and state medical societies was the only influence that opposed the quack and charlatan.

The second regular meeting of the Washtenaw County Medical Society was held on September 20, 1866, in the Medical Building in Ann Arbor, and a pattern of business was developed which was followed with various modifications for many years. The essayist was Dr. Batewell, who read a short paper on the duties of the physician in consultation. Essayists for the next meeting were appointed. Dr. Cheever as secretary reported the purchase of a calf-bound book—the book that happily has survived, in which are preserved the records of the activities of the Society until June 22, 1883. The second book, if one ever existed, has not been found.

The attendance at the meetings varied tremendously; at times there was barely a quorum, at other times—especially at the annual meeting—there was full attendance. The presentation of case histories was the backbone of the meeting; discussion was free, frank, and informative. It often amounted to a consultation, which it probably was designed to be. There were frequent discussions on matters that are now cared for by the health department, such as inspection of the County Poor House, water pollution, garbage disposal, and the reporting of contagious disease. There was occasionally much diversity of opinion concerning the diagnosis of a communicable disease.

An interesting activity was possible in this Society because of the special skills of some of the members. A program of analysis of popular patent medicines was carried out, largely by Drs. Rose, Douglass and Prescott. The patent and "ethical" proprietary remedies were the chief drugs prescribed during this period. Pharmacology was in its infancy, being nursed into rapid growth by the laboratory in the Medical School at Ann Arbor, the first laboratory devoted to this subject in this country. In it worked Abel, Cushing, Cheever, Edmunds, and other members of the Society.

In those years neither the county population nor the Society grew apace. The roster shows only three to five additions to the Society each year. The minutes of the meetings reflect the high interest and intellect of the members. The meetings were held in many places, as already mentioned. The medical building of the University was used occasionally—one wonders why not more often. The Cook Hotel and the Follett House were used; the Gregory House in Ann Arbor and the Hawkins House in Ypsilanti were favorites for a time. One meeting, at least, was held in the Council Chamber, another in a fire station, and another in the Opera House, representing a charming and economical use of public buildings. Most of the meetings, however, were held in the offices and homes of the members.

The wives of the members were usually invited to the annual meeting and occasionally to other meetings. Membership in the Society was at one time denied women physicians, although the denial was framed in most courteous language. At the eighteenth regular meeting, held in the Masonic Hall in Dexter in September, 1870, there was discussion concerning the admission of "lady applicants," but a decision was postponed. At the nineteenth regular meeting, in the Gregory House, Ann Arbor (no date), the cases of Mrs. Doctor Gerry and Miss Dr. Smith were reported

by the Board of Censors, and after much discussion, "only so much was adopted as gave them leave to withdraw their applications." It is interesting to note that something had to be discussed, since both appointed essayists for that meeting were absent.

Women students were admitted to the medical school in 1870. The innovation met with no loud cheers from the faculty, who opined that "in their judgment the medical co-education of the sexes is at best an experiment of doubtful utility, and one not calculated to increase the dignity of man nor the modesty of women." They did state, however, that the faculty was "willing to give a full course of medical instruction to females, at any convenient time, and for a suitable compensation." The profit motive won, but complete integration did not take place until 1881. It was not until 1903 that segregation in seating arrangements was abolished. Women were admitted to the Washtenaw County Medical Society after 1876.

During this long period, the roster of the Society reads like a "Who's Who in American Medicine"—both faculty and other county members were well known, not only in the state, but also in the nation. These men, the backbone of our heritage, whose names and achievements are so well known, need not be listed or commented upon here.

Medicine and Homeopathy in the County Society

The conflict between the regulars and the cults and the quacks was constant and at times bitter. The strongest of the cults now, Homeopathy, had begun to attempt to influence the legislature very early. The lawmakers were bombarded with petitions and personal views from 1851 until 1855, when the legislature passed an act providing for the appointment of at least one professor of Homeopathy in the Department of Medicine and Surgery. For the next twelve years a legal battle was waged to compel the Regents to comply with the act. Since we are concerned only with the local Society we need not go into the long, often bitter personal conflicts of the time. Suffice it to say that in April, 1875, the law was passed establishing a Homeopathic Medical College as part of the University of Michigan. This is a story and an episode in itself; however, it had its malign effect upon the Washtenaw County Medical Society. The faculty members who opposed Homeopathy were under fire from friend and foe, and others were severly criticised for allowing students of Homeopathy to sit in their classes. There were many martial encounters at the meetings of the County and State Medical Societies concerning these points, but as one reads them, one can only admire the forensic ability of the participants and wish that the scientific knowledge of all of them had been equal to their "powers of exposition."

This schism weakened the County Society. The University faculty, under bitter attack and primed for counterattack, started other local medical societies that were apparently disassociated from the parent society. From 1883 to 1903 we find no original minutes or records of the Washtenaw County Medical Society. We can still hope that the records of these years will eventually be found, perhaps in another calf-bound book now reposing in some attic. However, we have much information of the continued existence and programs of many meetings of the Society recorded in the local medical journals, in letters and public health directives. It was inevitable that the Homeopathy controversy, involving as it did two faculties of medicine with bitter criticism of both from several hostile groups of practitioners, would weaken the society. We read in the minutes of the thirty-seventh regular meeting, held in Ypsilanti in June, 1875, that a motion was made "to censure members of the Medical Faculty." The reason is not recorded, but happily the motion was tabled. It was undoubtedly another reflection of the two-school conflict.

Politics rather than reason had won for the moment, without, however, causing any great loss to the medical future of the state. The two schools went their ways, but over the years, in spite of hot words, cool counsel prevailed. The good sense of all involved and the growth of science in medicine finally brought on amalgamation of the schools in 1922—a happy ending to nearly sixty years of strife in medicine.

Although the other medical societies that were formed during this conflict did not completely abolish the County Society, they undoubtedly caused it to lose strength for the time being. The Ann Arbor Medical Club was organized about this time, its membership being largely recruited from the faculty of the regular Medical School, but some practitioners from other towns in the county were active members. The Ann Arbor Medical Club asked for recognition by the American Medical

Association, but was denied this at the meeting of the American Medical Association held in Buffalo, because of a protest from the Washtenaw County Medical Society. Later members of the University faculty were happy to make use of the attitude of the County Society, to urge the Regents to relieve the Department of Medicine and Surgery of some of the most obnoxious features of its pedagogical relationship with the Homeopathists. The relations between the Ann Arbor Medical Club and the County Society are not clear. That many physicians belonged to both is evident from notices that have survived in which it is stated "after this meeting of the Washtenaw County Medical Society there will be held a short meeting of the Ann Arbor Medical Club."

The Society and Medical Publications

A search of the volumes of several medical journals published in Ann Arbor and Detroit is interesting and fruitful, since in them was published from time to time the proceedings of the Washtenaw County Medical Society and also of the Ann Arbor Medical Club. Case histories and formal essays on philosophic and scientific subjects were presented, and these give an excellent concept of medical performance of their time which was, by and large, amazingly good.

These journals merit a careful study on their own, since they reflect the medical practice of their day. They indicate the zeal of our forebearers to advance and record medical knowledge, and they demonstrate that the medical profession, not only in Washtenaw County, but throughout Michigan, was of a very high standard. The journals were not officially sponsored by the Society, but they were edited by and contributed to by many members of the County Society. Since records of the County Society for this period have been lost the local journals are mentioned as giving, in part, their proceedings and also records of the activities of many of their meetings.

The *Peninsular Journal* was founded before the Civil War, about the time the County Society began consideration of its second beginning. The journal met with financial difficulties in 1875, was reorganized and started as a new series, but in the issue of December 1876 an editorial gave its obituary, "from this date it will be classed with the things which were but are not." It had previously been advertised as "the cheapest medical periodical in the West" ($3.00 per year). Perhaps this indicates the reason for failure. The *Michigan University Medical Journal,* conducted by the faculty of the Medical Department, was published in Ann Arbor, its first volume in 1870-71. It continued for three volumes, ending in 1873. In it appear reports of the meetings of the County Society. One reads with interest in Volume 1:

> The Michigan University Hospital is now in successful operation to supplement the University "Cliniques." It has a capacity of twenty beds and was inaugurated by the Regents a few months since. Patients are charged five dollars a day to include all expenses of board, medicines, and medical attendance.

Drs. Cheever and Gates reported that a patient with tracheotomy "lived twenty-three hours." The *Physician and Surgeon* was started in the eighties and continued publication until 1910. In this year a paper was given that "viewed the use of Salvarsan with pessimism." From this time on, other national medical publications and THE JOURNAL of the Michigan State Medical Society took over the scientific and publicity needs of the physicians of Michigan. We can be proud of the medical journals that had been initiated and carried on for sixty years largely by members of the County Society, since they reflect highly ethical and accurate reporting of the medicine of that time.

New Beginnings in the New Century

The County Society began to widen the scope of its programs, and we find that together with the Ann Arbor Medical Club and the medical faculty at the University, they occasionally invited speakers from outside the State. Dr. William J. Mayo, Dr. John B. Murphy, Dr. J. Peyton Rous, among others are mentioned.

The turn of the century is often used as a baseline in history. The beginning of the twentieth marked a great advance in medicine that was prophetic of a greater evolution to come. Basic medical science had made great strides, and the role of surgery had changed from an emphasis on the care of wounds to a most important part in therapy of the sick. These changes that strengthened regular medicine weakened the cults so that their influence in practice and in legislation became nominal. Medical practice was now controlled by laws that established standards of education and character.

This awakening affected organized medicine in a virile and important way. The presidential address of Dr. Leartus Connor, delivered at the

Michigan State Medical Society in 1902, was the trigger to greater changes. The Michigan State Medical Society was reorganized and strengthened. New county societies were formed. Councilors were appointed to visit and stimulate them. The older county societies were reorganized and brought into the new alignment. As part of this activity, the Washtenaw County Medical Society (the first of the county societies under the old plan) applied for a new charter from the State Medical Society on January 15, 1903. The application for this charter was signed by secretary of the County Society, Dr. Reuben R. Peterson. Under this new regime certain changes were made. The old Board of Censors was replaced by a Board of Directors. In that year a history of the County Society was written by Dr. William Breakey, presented to the Society and published in 1906 as part of a *History of Washtenaw County* edited by Samuel W. Beekes. During this time of change and reorganization we find that records of the Society were again kept and preserved. They contain a listing of the officers, directors and meetings. Meetings of the Society were held more frequently, an attempt being made to meet once a month. The meetings were still held in a peripatetic fashion in offices, public buildings, and hotels, and in hospitals and medical school amphitheaters.

The Society had 112 active and nine honorary members in 1910, with little change to 1920. This post-war period marked the consolidation of medicine in Washtenaw County. Private medical clubs and societies discontinued their meetings; the County Society became stronger and represented a unified profession. The many small private hospitals that had been operated by individual physicians in remodeled private houses were no longer needed, because of the growth of the University Hospital and the advent of St. Joseph Mercy Hospital in 1911. These two hospitals, with others in the county, care well for the needs of the people and of the profession.

The Washtenaw County Medical Society Today

The County Society has continually enlarged its functions and activities to meet the growth of population and medical sciences. Its many standing committees carry on a constant study of Society activities, not only in scientific progress, but perhaps more importantly, in fields of public relations and education. A Mediation Committee deals with all complaints and criticism leveled at the profession. The Ethics Committee cares for any difficulties in doctor-to-doctor relationships. Other committees work with Public Health units and with the State Society on problems concerning the health and welfare of the people.

The County Society takes an active part in graduate medical education for those young men and women taking graduate training in the hospitals of the county. These students are invited and urged to join the Society as associate members, so that they may learn of its ideals of practice and methods of procedure in relation to the public and to other health organizations. In 1950 there were 268 members of all classifications and in 1958 this has grown to a membership of 365, a reflection of an increased population, of an enlarging faculty and hospital staffs, but most importantly—a participation in graduate medical education.

The Washtenaw County Medical Society *Bulletin* No. I was issued in February 1924; subsequent issues are available in bound volumes from 1942 to date.

The Washtenaw County Medical Society has existed in some form for 131 years. In this time medicine has had its most thrilling growth. The first fifty years were sterile in science but marked by high ethics and hard efforts. In the next fifty years medical sciences were originating and developing, but still without a great influence upon the health of the nation. During the last thirty years miracles in medicine have happened that have changed the outlook of the world. It is a pity that our founding members could not be given a glimpse of the medicine of today.

Acknowledgment

We wish to express our thanks to the Michigan Historical Collection for courtesy and help in finding source material. We are indebted to Dr. Dell Henry and Mrs. Flora Mayer for making the Society records available to us. We also acknowledge our debt to "The Medical History of Michigan," edited by C. B. Burr and Committee, published by the Bruce Publishing Co., Minneapolis and Saint Paul, 1930.

We have consulted with pleasure and profit the article "The Doctor and the Newspaper in the Territory of Michigan, 1817-1837" by Fanny J. Anderson in the *Journal of the History of Medicine*. Vol. II, 1947, which gives a vivid picture of medical practice in territorial days.

Finally, we thank Mrs. Ruth Good for invaluable help in organizing our material in the form in which it is presented.

Ventriculo-Venous Shunt Using the Holter Valve as a Treatment of Hydrocephalus

By Kenneth W. Carrington, M.D.
Ann Arbor, Michigan

HYDROCEPHALUS has been a problem facing physicians for as long as medicine has been practiced. The seriousness and complexity of the problem are borne out in the number of procedures advocated in its treatment.

Renewed interest in the problem has occurred in the last ten years, thanks to the availability of various plastic materials. In this period, the Matson[6] procedure, or subarachnoid-ureterostomy, was a step forward in the treatment of this disease. This procedure, however, has definite disadvantages which have led to further investigation of methods of treatment.

For the last one and a half years, most of the cases of hydrocephalus seen at the University of Michigan Medical Center have been treated by means of a ventriculo-venous shunt utilizing the Holter valve. Shunting the cerebrospinal fluid from the lateral ventricle of the brain to the right auricle of the heart by way of the internal jugular vein is effected. The Holter valve is employed and is designed to prevent backflow of blood into the ventricle.

This is a report of the first fifty cases treated on the Neurosurgical Service. This procedure has been outlined, advocated, and was first used by Dr. Eugene Spitz[13] of the Children's Hospital of Philadelphia, and Dr. Frank Nulsen, of the Western Reserve University Medical School and University Hospitals of Cleveland.

History

Most physicians will agree the best method of treating any disease is the one which least disturbs the normal body processes. As early as 1895, Gärtner[2,5] suggested that the most physiologic treatment would be the establishment of a connection between the ventricular system and the venous or lymphatic system of the head or neck.

Payr[9] in 1908, reported three ventriculo-venous anastomoses. The lateral ventricle was anastomosed to the superior sagittal sinus utilizing a free segment of vein. There was no reflux of blood into the ventricle but all patients died within four months of the procedure. Later Payr[10] reported the connection of the lateral ventricle with the internal jugular vein. Three of eight patients had excellent results.

Following this Enderlen,[1] Kanavel,[4] and McClure[7] reported attempts at various anastomoses, all of which had only fair to poor results.

Enthusiasm for such procedures was extremely low prior to World War II.

Ingraham[3] et al., in 1948, reported the use of polyethylene tubing to anastomose the enlarged lateral ventricle of dogs to the superior sagittal sinus. Re-exploration at various intervals up to seven weeks postoperatively revealed that blood had refluxed into the tube and clotted. They also attempted to shunt the fluid into the superior vena cava, facial, external maxillary, and external jugular veins, which were equally unsuccessful due to blood refluxing into the tube and clotting. These authors concluded, "Unless an extremely sensitive but completely competent artificial valve can be devised and introduced between the cerebrospinal fluid pathways and the venous system in such a fashion as to permit only unidirectional flow of fluid, no matter what the relative hydrostatic pressure may be, all attempts to achieve ventricular decompression by ventriculo-venous shunts will fail and should not be submitted to clinical trials."

The first reported use of such a valve was that of Nulsen and Spitz.[8] They reported the insertion of a rubber "subcutaneous pump" connecting two ball valves. This connected the lateral ventricle and the internal jugular vein. The case described was operated upon in 1949 and the shunt was functioning well at the time of their initial report in 1952.

Pudenz,[12] et al., reported the use of a ventriculo-auriculostomy utilizing either a "slit and core valve" or "sleeve valve." This, unlike the shunt devised by Nulsen and Spitz, had the valve

From the University of Michigan, Department of Surgery, Section of Neurosurgery, Ann Arbor, Michigan.

located distally within the right auricle. They reported successful control of hydrocephalus with this type of procedure.

For approximately the last three years, Drs. Spitz and Nulsen have been successfully utilizing a valve designed by Mr. John Holter. Their results have not been published at this time, but certainly appear to be encouraging.[13]

We have treated some fifty hydrocephalic patients with the Holter valve over an eighteen-month period. Twelve of these patients were operated upon at the Coldwater State Home through the co-operation of Drs. E. J. Rennell and J. C. Heffelfinger, the remainder at the University Hospital. The technique used is modified only slightly from that suggested by Spitz.[13]

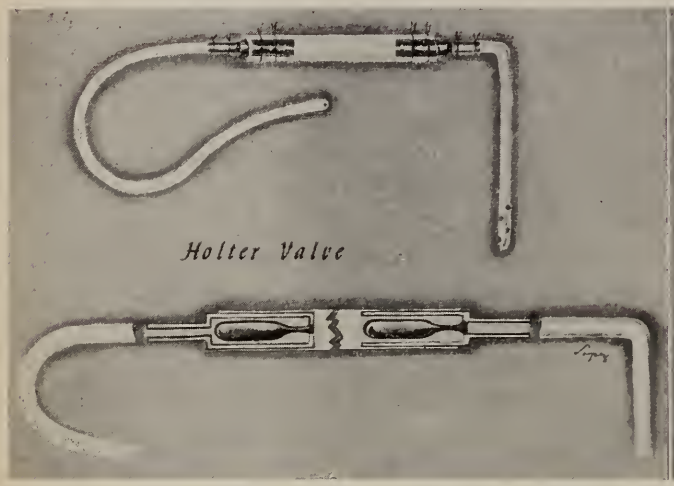


Fig. 1. (*above*) Holter valve shown with attached distal and proximal catheters. (*below*) Schematic representation of inner mechanics of Holter valve.

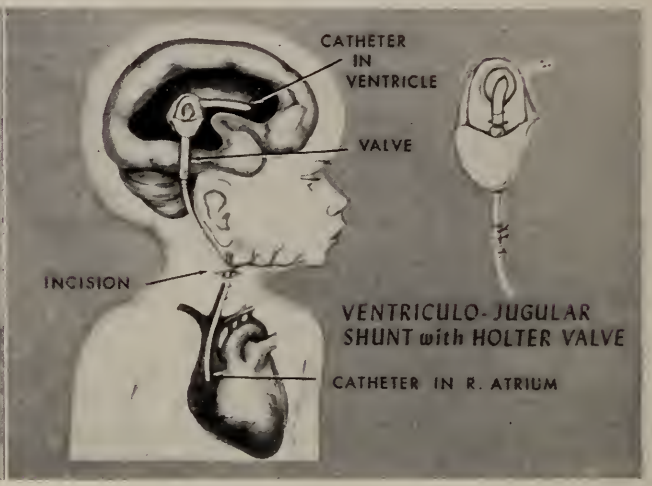


Fig. 2. Over-all scheme of the shunt's location. The insert shows the proximal catheter's position.

Materials

The Holter valve consists of a pair of "fish-mouth" type valves connected by a siliconized-rubber cylinder (Fig. 1). This mechanism measures approximately 5 cm. in length, and 6 mm. in diameter. The cylinder can be shortened, if desired, for very small children. The valves allow only unidirectional flow of fluid and are regulated at the time of manufacture to open at pressures greater than either 10 mm. or 50 mm. of water. The low opening pressure valves (10 mm.) were used in children with myelomeningoceles and in patients with very pliable heads. This allowed marked collapse of these abnormal structures with little risk of the production of subdural hematomas. The high pressure valves (50 mm.) were used on all other patients. The valve is placed between two catheters (Fig. 1).

The proximal catheter, the one to be placed in the lateral ventricle, is made of siliconized rubber impregnated with 5 per cent barium solution.

This tube is preformed at a right angle so that its lumen is not encroached upon at its exit from the skull.

The distal catheter is of siliconized rubber with 5 per cent barium impregnation. Siliconized rubber is a material of very low tissue reactivity and has the advantage over polyethylene of being elastic and also very pliable. Impregnation of these tubes with barium makes them radio-opaque. The use of this material in the cylinder between the valves proves to be of great advantage in that the system can be pumped manually through the intact scalp, which gives an indication as to whether the valve is functioning correctly.

Diagnosis and Technique

The diagnosis of hydrocephalus is one which is not usually difficult to make on clinical grounds, or to substantiate by ventricular air studies. The clinical diagnosis is made by the abnormally rapid rate of head growth and the various other physical characteristics, such as venous engorgement of the superficial scalp veins, "sunset" eyes, and a bulging anterior fontanel.

In order to substantiate the diagnosis, it has been our practice to do small ventricular air studies or "bubble" studies on most cases of suspected hydro-

cephalus. By doing this study the presence of a tumor causing the patient's ventricular enlargement is excluded. Subdural hematoma[11] in infants is a lesion which also must be ruled out as it mimics the signs and symptoms of hydrocephalus.

Once the diagnosis of hydrocephalus is confirmed, a ventriculo-venous shunt cannot be carried out until the air has been absorbed from the ventricular system. Air embolism might result from the transference of air from the ventricle into the right auricle. The insertion of the valve is carried out under general anesthesia.

valve is anchored to the skull by means of a single suture of stainless steel wire. The distal catheter is anchored loosely within the internal jugular vein by means of silk sutures.

The exact position of both the proximal and distal catheters can be checked by postoperative skull and chest x-rays, respectively (Fig. 4). Any change of the distal catheter with growth of the child is then easily measured.

The shunts were considered as functioning if the child's head stopped enlarging at an abnormal rate, and the anterior fontanel became depressed.



Fig. 3. (*left*) Chest x-ray taken in the operating room. Test catheter with radio-opaque tip used to determine exact tube length required to reach right auricle.
Fig. 4. (*right*) Postoperative chest x-ray showing position of distal catheter.

The valve with attached proximal right angled catheter and straight distal catheter is placed in a subcutaneous pathway behind the right ear.

The right side of the head and neck is the usual site of this shunt in that there is a more direct connection through the right internal jugular vein to the right auricle. The scheme of the valve's insertion is depicted in Figure 2.

The right angle catheter is inserted into the ventricle through a trephine in the parietal region. Great care is taken to be certain that the distal catheter is either within the right auricle, or at the superior vena caval-auricular junction. This can be done at the time of the distal catheter's insertion by the injection of radio-opaque material into the tube, or by placing a radio-opaque tip on a test catheter and taking a chest x-ray in the operating room (Fig. 3). From this measurement, an accurate determination of the tube length required to reach the auricle is obtained. If the tube does not reach the superior vena cava, thrombosis of the internal jugular vein will result. The

In patients with closed fontanels there was a decrease in pressure symptoms (headache, vomiting, and papilledema). By pumping the cylinder between the valves, through the intact scalp, the valve can be tested. The cylinder should collapse with pressure and then quickly fill again. If it will not collapse a block is suspected in the distal catheter. If the cylinder collapses and fails to fill a block in the proximal catheter is probable.

Results

This is an analysis of fifty ventriculo-venous shunts carried out on the Neurosurgical Service of the University of Michigan Medical Center. The patients ranged in age from eight days to twelve years. All patients have been followed from two to eighteen months postoperatively.

As of this writing, forty-three patients have functioning shunts, or a success rate of 86 per cent. In order to accomplish this, some sixty operative procedures were required. The ten revisions necessary were in eight different patients.

Internal jugular thrombosis, or a plug in the distal catheter, was the reason for failure of the procedure in eight cases. In the remaining two, a plug was present in the proximal catheter. In none of the revisions was there any abnormality noted in the valve mechanism.

The seven patients in whom the valves are no longer functioning can be divided into three groups. The first group consists of three patients in whom the valve functioned, but the patients expired presumably from their disease rather than from the operative procedure. One had platybasia and associated hydrocephalus; another agenesis of the cerebellum; and a third showed cerebral agenesis at autopsy. In the second group is one patient who developed an obstruction of the proximal catheter and the valve was removed at another institution.

The third group consists of the remaining three cases. All of these had myelomeningoceles with associated hydrocephalus. Postoperatively the patient developed meningitis and septicemia. The source of infection was not definitely proven, but these cases must be considered as operative deaths, despite the occurrence of the infection from one to three months postoperatively. Including these cases, the over-all operative mortality was 6 per cent.

Ten patients had myelomeningoceles with hydrocephalus. In seven there was marked collapse of the myelomeningocele after the shunt. The three that failed to collapse were the three children who expired secondary to meningitis and septicemia. In all cases in which there was collapse of the myelomeningocele, there was increased thickness of the covering epithelium.

In evaluating the benefit of the shunt, for the patients, it was found that thirty-four patients of the fifty operated upon showed improvement following the procedure. The remaining cases have shown no demonstrable change. On review of the ventriculograms it is seen that it is difficult, if not impossible, to predict the absolute potential of the children from the thickness of the cortex, as demonstrated by air study.

The production of subdural hematoma, secondary to rapid decompression of the ventricle, was not encountered in any of the patients in this series.

Discussion

The ventriculo-venous shunt with the Holter valve is an attempt to return excess cerebrospinal fluid to the blood stream. The advantages of this procedure as compared to other available methods are: (a) preservation of the cerebrospinal fluid by returning it to the blood stream without loss of electrolytes, (b) no necessity to sacrifice any organ to carry out the procedure (as removal of the kidney in the Matson procedure), (c) little chance of ascending infection through the tube with resulting meningitis as the distal tube is in a sterile area, (d) no alteration in the technique is required in the treatment of either communicating or obstructive hydrocephalus.

Since the Holter valve has been used for but three years there remains concern for the effect of growth on the position of the distal catheter. Pudenz, et al,[12] reported that the growth in children from the mastoid to xiphoid was only 6 cm. in the first five years of life. If the distal tube is placed in the right auricle there will be some excess present allowing for future growth of the child. The catheters being made of an elastic material also allows for further growth. It is extremely important that the distal catheter be at the superior vena caval-auricular junction or within the atrium. If the catheter is placed only in the internal jugular vein, thrombosis will occur and the shunt will fail.

After reviewing our results to date and considering the advantages stated above, it is believed that this type of shunt is probably the best available for all types of hydrocephalus. From these data, it is thought that most cases of hydrocephalus should be shunted. As noted previously, there appears to be no direct relationship between the cortical thickness and the results obtained from the shunt.

If the shunt is a failure with regard to mental and physical improvement of the patient, it may reduce to some degree the subsequent nursing care of the patient.

The results suggest that the patients with myelomeningoceles should be shunted as soon as pressure symptoms appear. If the shunt is used, the pressure may be relieved from the myelomeningocele sac and further epithelization is possible. Surgical care of this lesion may then even be avoided.

Summary

1. Fifty cases having ventriculo-venous shunts are reported. Follow-up periods ranged from two to eighteen months with 86 per cent functioning well.

(Continued on Page 383)

Experience with Diverticulitis Over a Ten-Year Period

By B. C. Payne, M.D., and
James Beatty, M.D.
Ann Arbor, Michigan

A STUDY of 531 patients discharged with the diagnosis of diverticulosis between December 1947 and December 1957 is presented with a critical analysis of diagnostic and prognostic evaluation. Of this group, only 183 had symptoms which in any way could be associated with diverticular disease of the colon. Of this symptomatic group, thirty-seven had vague abdominal distress of the type associated with spastic or irritable colon and radiologic evidence of diverticulosis of the colon. In sixty-nine instances there was positive correlation between the clinical and x-ray evidence of diverticulitis and in twenty-three instances, clinical evidence of diverticulitis with x-ray evidence of diverticulosis only.

The criteria for establishing a clinical diagnosis consisted of: symptoms of pain (usually in the left lower quadrant), tenderness over the same area, mild leukocytosis and fever of slight degree (100° F.). Radiologic evidence consisted of demonstration of diverticula in the colon, tenderness, spasm and/or filling defect and frequently a "saw-tooth" appearance of the involved colon. In thirty-three cases, a diagnosis of diverticulitis was made by the radiologist in the absence of typical signs or symptoms of the disease. There were ten cases recognized on the basis of clinical evidence, alone, with no positive radiologic findings and an additional eleven cases demonstrating diverticulitis at the time of surgical exploration not previously suspected.

Of the entire group of 146 patients with diverticulutis thus assembled, eighty-eight were treated medically and fifty-eight by a variety of surgical procedures. Medical management fairly uniformly consisted of a bland diet, antibiotics or chemotherapeutic agents, bed rest and, when indicated by blood loss, transfusions.

The fifty-eight patients on whom surgery was performed include eleven diagnostic errors. The remainder were considered to have some complication not responsive to medical management or with the distinct possibility that the colonic lesion represented a neoplasm and not an inflammatory disease. Only one patient died in the immediate postoperative period and he of peritonitis and pneumonia.

TABLE I. DIAGNOSTIC EVALUATION OF 183 CASES OF CLINICAL DIVERTICULITIS

Diagnosis Established by:	*Number*
1. Clinical and Radiologic Evidence Correlated	69
2. Clinical Evidence with Radiologic Evidence of Diverticulosis	23
3. Radiologic Evidence Present in Absence of Clinical Evidence	33
4. Clinical Evidence Alone with No Positive Radiologic Findings	10
5. Demonstrated at Operation, Not Previously Suspected	11
6. Vague Clinical Symptoms with Radiologic Evidence of Diverticulosis	37
Total	183

The type of surgery performed is indicated on Table II. In general, a three-stage operative procedure was preferred with initial colostomy and later resection of the diseased bowel with end-to-end anastomosis and final closure of the colostomy.

TABLE II. TYPES OF OPERATION ON PATIENTS WITH DIVERTICULITIS

Diagnostic	
Appendectomy	5
Laparotomy with Biopsy	1
Incidental	
Rectal Prolapse	1
Therapeutic	
Subtotal Gastric Resection	1
3-Stage Colonic Resection	20
Primary Resection with Re-Anastomosis	15
Complimentary Cecostomy and Resection	7
Colostomy and Resection with Secondary Closure of Colostomy	4
Transverse Colostomy Only	3
Cholecystectomy	1
	58

Utilizing proper preparation with antibiotics and sufficient localization and subsidence of the acute inflammatory disease, the surgeons accomplished colonic resection with anastomosis in only one

From the St. Joseph Mercy Hospital, Ann Arbor, Michigan.

stage. In all instances, surgery was done for recurrent severe diverticulitis, perforation of the bowel or colonic narrowing, filling defect and obstructive symptoms, suspected cancer, fistula formation or hemorrhage. There is concurrence of opinion expressed by Catell,[2] Bacon,[1] Colcock,[3] and Welch[25] regarding the indications for surgical intervention.

In eleven instances surgical exploration was done with erroneous preoperative diagnoses. Six were suspected to have acute appendicitis and five to have a gynecologic disorder involving ovary, tube or uterus. In the six suspected appendicitis cases, pain and tenderness were localized to the right lower quadrant in four but was present in both lower quadrants in two of the patients. No barium enema examinations were done preoperatively. The degree of fever, leukocytosis or change in bowel habits was not considered helpful in differentiation even in retrospect; however, in one instance, rectal bleeding might have alerted the surgeon to another consideration and led to an x-ray examination of the colon. At the time of exploration, diverticulitis was found to involve the cecum and ascending colon in four cases and the sigmoid colon in two cases. Bilateral lower quadrant pain occurred in both of the latter patients. The bleeding episode occurred in diverticulitis of the cecum. In a series of 200 cases presented by LeRoyer[11] in 1948, fifteen were mistakenly operated on as acute appendicitis and seventeen with such diagnoses as pelvic inflammatory disease, acute cholecystitis, intestinal obstruction and ruptured ovarian cyst.

In considering the five errors found in supposed gynecologic disorders in our series, four were thought to be ovarian neoplasm and one a torsion of an ovarian cyst. In each instance, diverticulitis of the sigmoid colon was found at surgical exploration. In four of these no barium enema had been done. In one pre-operative barium enema the radiologist failed to report several small diverticula (seen in retrospect) in the lateral wall of the sigmoid colon. Again, LeRoyer[11] reported that in the thirty-two erroneous diagnoses in their series none had had a barium enema examination.

It has been observed repeatedly that cancer of the colon and diverticulitis involve primarily the same area—the sigmoid colon—but that the concomitant appearance of both lesions is purely coincidental. (Rowe,[18] Ransom,[19] Smith,[22] Morton,[13] and Mayo.[12]) The differential diagnosis of cancer and diverticulitis has always been a vexing problem and one which has led repeatedly to the observation that surgical resection is mandatory when there is doubt of the inflammatory nature of the disease. After reviewing sixty-nine cases of coexisting carcinoma and diverticulitis of the colon, Rowe[21] concluded that symptomatology was of little value in differentiation but that evidence of inflammation, palpable mass and fistula formation occur more frequently in diverticulitis while obstruction, anemia and cachexia are more suggestive of cancer.

In our own observation there were six cases of complete bowel obstruction with diverticulitis. In two of these, cancer involved the same bowel segment. In twenty-one cases demonstrating narrowing of the colon or filling defect due to diverticulitis, four were seen to have cancer in the same surgical specimen. In one instance recognized as diverticulosis only by radiologic examination, the patient died of carcinomatosis and at postmortem examination, a primary neoplasm of the sigmoid colon was demonstrated. Sigmoidoscopy was not performed but the disease was very extensive when the patient was first observed and diagnosis had been established before death by peritonoscopy and liver biopsy. One patient had diverticulosis, a vesico-colic fistula and, at surgical exploration, a carcinoma of the colon with no evidence of diverticulitis. In one case of recto-vaginal fistula with diverticulitis, the patient was demonstrated at autopsy to have carcinoma of the colon as well. A total of nine cases of colonic neoplasm found in 146 cases of diverticulitis or in fifty-eight surgical patients. This compares closely with Ransom's[19] figures of seven carcinomas occurring in fifty-three patients with diverticulitis who were resected. Morton[13] reports only eighteen co-existent lesions in twenty years of experience at the University of Rochester. Oren[16] reported co-existence of carcinoma and diverticulitis in two of 102 cases of diverticulosis; Fallon[6] found only three cancers in 625 cases of diverticulitis and Rankin[18] and Brown found cancer in only four among 227 cases of diverticulitis. Others have had similar experiences with infrequent association of the lesions.

It must be recorded that on three occasions a preoperative diagnosis of diverticulitis was changed to cancer of the colon on pathologic examination at which time no evidence of diverticular disease was present. These three patients have been excluded in making the tabulation.

Incidence of Bleeding

There has been a lively debate occurring in surgical literature for several years regarding the frequency of bleeding in diverticulosis, in diverticulitis and in co-existent cancer and diverticulitis. The weight of evidence, manuscript-wise, would indicate a gradual acceptance of the thesis that significant, even severe, bleeding is a fairly common manifestation of diverticulitis.

There is repeated reference to massive bleeding from the large bowel when diverticulosis has been the only demonstrable lesion. Noer[15] demonstrated the intense vascularity of the colonic diverticulae by vascular injection studies of anatomic specimens and presented sixty-eight cases of diverticulitis and diverticulosis in which twenty exhibited rectal bleeding. Stanton[23] reported 131 admissions for diverticulitis and diverticulosis in which thirty-seven had gross rectal bleeding. These included fourteen cases (10 per cent) of "massive rectal hemorrhage" none of which required surgery but did require from 500 cc. to 2,500 cc. of whole blood transfusions. Rosser[21] recites his personal experience with significant rectal bleeding in 30 per cent of forty cases of diverticulitis. Quinn[17] and Ochsner found rectal bleeding to be the most frequent complication requiring admission to Charity Hospital for diverticulitis and diverticulosis (48 per cent of admissions). Rankin[18] expresses the view that rectal bleeding is not commonly found in diverticulitis and advises investigation for an associated malignant lesion when it occurs. DeCosse,[5] reporting on the rectal bleeding in twelve of forty-three cases of diverticulitis, found polypoid disease of the colon in six and concluded that bleeding was not frequently attributed to diverticulitis. Hoar[9] reports bleeding in 37 per cent of 111 cases of diverticulitis and 16 per cent of 236 cases of diverticulosis. Jensen,[10] Cote,[4] and Goodwin[7] add evidence that bleeding occurs in diverticulosis alone.

In our series of cases, rectal bleeding due to diverticulitis and diverticulosis occurred in forty-one of the 531 cases (8 per cent of the total or 22 per cent of the 183 symptomatic cases). Of this total, thirty-one were considered minimal or moderate as judged by visible blood in mucoid discharge, or recurring blood in or on the stools. Ten cases were classified as severe bleeding when the following criteria were present: sudden onset of gross amounts of blood in the stool or continuous bloody rectal discharge, associated symptoms of faintness or dizziness, tenesmus and passage of bloody clots and an initial hemoglobin of 10 gm. or below.

Of the thirty-one cases of bleeding classified as minimal or moderate, ten were due to diverticulosis and twenty-one to diverticulitis. Conversely, in ten cases of severe bleeding, diverticulosis was present in seven and diverticulitis in only three. The average age of the patients with severe bleeding was seventy-four years.

Ranson[19] has stated that gross rectal bleeding should alert the clinician to the presence of carcinoma in colons demonstrating diverticulitis. In five of seven cases he describes this observation is confirmed. In our own experience, however, only minimal rectal bleeding occurred in three of our nine cases in which cancer co-existed with diverticulitis. One patient, seen initially with severe bleeding apparently due to diverticulosis alone, developed obvious carcinoma of the colon one year later.

It is well to emphasize again the experience of others in the management of severe rectal bleeding in diverticulitis and diverticulosis. Noer's[15] twenty patients who exhibited rectal bleeding were divided into a surgical group of six; three were operated upon as emergencies and died; three underwent elective colonic resection and recovered. Of the fourteen patients without operation, two died, one of intestinal obstruction and one of an undiagnosed diverticular perforation which was shown at autopsy. The other twelve lived. Contrast this experience with Stanton's[23] fourteen cases of massive rectal bleeding treated conservatively with blood transfusions and no surgery. There were no deaths from bleeding although 500 cc. to 2,500 cc. of whole blood transfusions were required in each instance. Hoar's[9] recommendation for early surgery in massive hemorrhage from diverticulitis seems odd when considered with his four reported cases so treated, three patients died and only one lived.

Our own experience would urge conservatism in cases of massive rectal bleeding. Bed rest, antispasmodic drugs and blood transfusions controlled seven of the ten cases of severe bleeding with no later recurrence. The only postoperative death in the entire series occurred in hemorrhage from diverticulitis in a patient on whom an emergency colectomy was performed. He died of peritonitis and pneumonia postoperatively. A second patient had an empiric gastric resection when the rectal

bleeding was not recognized as arising in the colon and in the third, a surgical resection of the sigmoid colon successfully controlled the hemorrhage from the bowel. In one surgical patient diverticulosis alone was demonstrated radiographically; in the other two, sigmoid diverticulitis was present.

TABLE III. COMPLICATIONS OF DIVERTICULOSIS IN 183 CASES

I. *Suppurative Complications*		
A. *Perforation*		19
1. Abscess formation	9 (one with carcinoma of colon)	
2. Peritonitis	6	
3. Fistula formation	4	
a. Recto-vaginal	2 (one with carcinoma of colon)	
b. Vesico-colic	1 (with carcinoma of colon)	
c. Sigmoid-cutaneous	1	
B. *Recurrent Severe Diverticulitis*		7
II. *Mechanical*		
A. *Hemorrhage, Severe...*	(one with carcinoma of colon)	10
B. *Obstruction*		27
1. Complete	6 (two with carcinoma of colon)	
2. Filling defect and narrowing of colon	21 (four with carcinoma of colon)	
C. *Rectal Prolapse*		1
		64
		35% of 183

Incidence of Complications

As seen in Table III the over-all incidence of complications in this series of 183 cases of diverticular disease is 35 per cent. We have included recurrent severe diverticulitis as a complication because it usually led to surgical resection of the involved bowel segment. In several instances multiple complications (abscess formation and perforation, constricting lesion and hemorrhage) were present in the same patient.

LeRoyer,[11] in reviewing 200 cases of diverticulitis from 1927 until 1946 reports complications in 25 per cent. Forty-three of the complications were bowel perforations with various suppurative consequences and only seven were mechanical obstructions due to local inflammation. In the present series, suppurative complications of bowel perforation account for only nineteen cases while mechanical obstruction occurred in twenty-seven cases. This is a reflection of the deliberate selection of the antibiotic era for reporting this group of diverticulitis patients. The low mortality is also due to the same factor. Four deaths in the series were due to carcinomatosis and the fifth due to postoperative generalized peritonitis and pneumonia.

It is in these obstructive and suppurative complications of diverticulitis that surgery is indicated. Rectal hemorrhage due to diverticular disease is not in itself an indication for surgical intervention. It is important to recognize that six of the nine cases of concomitant carcinoma and diverticulitis of the bowel occurred in the group identified as mechanical obstruction.

Surgery was done on fifty-eight patients in this group of 183 cases. The type of surgery is indicated in Table IV.

Radiologic Findings

Radiographic examination of the colon is the most accurate single diagnostic agent in either diverticulosis or diverticulitis but in four cases a clinical diagnosis of diverticulitis was possible when barium enema examination was entirely negative. In an effort to determine the frequency of radiographic errors, a further evaluation demonstrated that in three instances clearly outlined diverticulae on initial barium enema examination were not visible on subsequent radiologic examination of colon three months, five months and eighteen

TABLE IV. FOLLOW-UP STUDY OF 183 CASES OF DIVERTICULITIS

	Total	Number of Respondents	Recurrence	Subsequent Resection of Colon	Deceased
Mild illness—No treatment	37	18	9	1	4(one cancer of colon)
Medical treatment	88	61	31	6	10
Surgical treatment	58	33	7	2	4
1. Colon resection	46	26	5	1	
2. Laparotomy	6	4	1		
3. Colostomy	3	1	1	1	
4. By-pass	1	1	0		
5. Subtotal gastrectomy	1	1	0		
Total	183	112	47	9	18

Of particular interest are the six cases of perforation with generalized peritonitis. One occurred coincident with a bowel movement, another following castor oil for constipation; one occurred during steroid administration and one during a tap water enema given for constipation, and one in which a small piece of wood penetrated the diseased colon.

months later. Furthermore, when diverticula were not visualized initially by colon x-ray examination in cases of suspected diverticulitis, a subsequent examination did disclose the diverticulae in six instances in less than one year. In three of the six cases, diverticulae were found on repeated examination within four days, two weeks, and one month of the original examination.

Conversely, the radiologist felt confident enough in finding colonic spasm, narrowing, "saw-tooth" deformity with localized tenderness that, even without demonstrable diverticula, a diagnosis of diverticulitis was warranted in eight cases. Goulard and Hampton[8] emphasized these same statements with the additional observation that localized tenderness and demonstration of abscesses are the most reliable roentgen signs of acute diverticulitis.

In seventeen radiologic examinations, the presence of carcinoma was suspected to coincide with diverticulitis. Of these seventeen, five were demonstrated to have carcinoma and diverticulitis. In the twelve other cases filling defects in the colon, thought to be carcinoma by the radiologist, were proved to be inflammatory diverticulitis alone at the time of surgical exploration.

As in other reported series, the location of the diverticula and diverticulitis was primarily the sigmoid colon. All instances of complete bowel obstruction (six) occurred in the sigmoid; filling defects, constriction or partial obstruction also had a similar predilection for the sigmoid colon in seventeen instances but was seen also in the ascending colon in two cases, ileum in one case and ascending colon and sigmoid simultaneously in one case.

Sixteen of the total of 183 symptomatic patients had no x-ray examination of the colon. In this group fall the diagnostic errors as indicated elsewhere.

In fifty-two examinations of the upper gastrointestinal tract, ten duodenal diverticula were visualized in association with the colonic diverticulae. It was not possible to relate symptoms specifically to the duodenal diverticulae nor was any surgical procedure directed toward removal of these diverticulae.

Follow-up

Of the original thirty-seven cases of minimal symptoms with diverticulosis demonstrated radiologically eighteen persons responded to a questionnaire. Eight of these continued to have at least minimal abdominal complaints of pain and one had subsequent colon resection for diverticulitis. Five were reported dead, one with carcinoma of the colon.

TABLE V. SUBSEQUENT COURSE OF DIVERTICULITIS ASSOCIATED WITH RECTAL BLEEDING

	Total	Number of Respondents	Severity of Recurrence	Carcinoma of Colon
Minimal bleeding	31	17	3	
Severe bleeding	10	7	1	1 (one year later)
Recurrence of bleeding		4*		

*All originally minimal.

Of the eighty-eight patients for whom medical programs were advised there were sixty-one responses to the questionnaire. Of these sixty-one respondents, thirty-one experienced recurrence (frequently multiple) of diverticulitis and six had subsequent colon resections. This proportion of one in two with recurrences persisted whether the initial episode of diverticulitis was mild, moderate or severe. Ten patients in this group had died, all of causes unrelated to diverticulitis.

Of the fifty-eight surgical patients, thirty-three responded and of these, twenty-six were patients with colonic resection. In this group of twenty-six respondents, five had recurrences of diverticulitis and one required resection of the remaining large bowel for relief of symptoms. In four respondents who had had laparotomy but no resection, only one experienced subsequent recurrences of diverticulitis. One respondent treated with simple colostomy later required resection of the bowel, one respondent treated with a by-passing procedure reported no further symptoms. The patient on whom the subtotal gastrectomy was done also reported no recurrence of symptoms. Four in this group of thirty-three had died, all apparently of diseases unrelated to diverticulitis.

Thus of those patients treated medically (including the surgical patients not treated definitively) we found that forty of eight-four respondents (or one of two) experienced recurrences of diverticulitis and six required later bowel resection. In those surgical patients treated with some form of definitive procedure, six of twenty-eight respondents (or about one in five) described recurrences of diverticulitis and two of these required subsequent additional bowel resection. Altering the tabulation of surgically-treated patients to corre-

spond to the evidence found in follow-up studies, indicates that sixty-five of 183 patients eventually had surgical treatment.

Of considerable interest is the subsequent course of those patients that manifested rectal bleeding. Of the original ten patients with severe bleeding there were seven respondents and none reported subsequent bleeding. Of the original thirty-one patients manifesting minimal bleeding, there were seventeen respondents and four reported subsequent bleeding, three minimal and a fourth apparently fairly severe bleeding. Recurrence of rectal bleeding does not therefore seem to be much of a problem.

Discussion

This study confirms much evidence presented in the past, that is, one in three patients with diverticulitis had some surgical procedure, diagnostic error occurred primarily as a result of confusion with acute appendicitis and pelvic disorders and probably could have been avoided with barium enema examinations of the colon. Bleeding from diverticulitis is an important symptom and bleeding from diverticulosis alone may be severe requiring multiple transfusions and, infrequently, surgical resection. Suppurative complications of diverticulitis have declined in the antibiotic era but mechanical complications of obstruction and hemorrhage have increased, at least relatively. Cancer and diverticulitis involve the same bowel segment, occur concomitantly, and most commonly are found together as an obstructive lesion of the sigmoid colon. Bowel resection is advised whenever there is doubt of the inflammatory nature of the colonic disease or when any degree of obstruction of the colon is present. In the event that non-surgical treatment is necessary for partially obstructive lesions of the colon, careful follow-up examinations by barium enema at yearly intervals seems indicated.

Diverticulitis may be diagnosed clinically with meager or negative radiographic findings, but roentgen examination remains the most certain means of diagnosis.

It is apparent from the course of illness in the patient after leaving the hospital that surgical resection of the diseased bowel results in fewer recurrences of diverticulitis but does not eliminate the problem in all instances. A physician whose decision that medical management is mandatory or seems desirable for whatever cause may expect that every other patient will have recurrences of diverticulitis, frequently multiple.

It is also apparent that rectal bleeding, severe or minimal, rarely will pose a problem subsequent to the initial episode.

Conclusions

1. Preoperative barium enemas would largely eliminate diagnostic errors when pelvic tumors appear as a problem of differential diagnosis.

2. Severe intestinal bleeding was more often associated with diverticulosis that diverticulitis and conservative (non-surgical) management of such bleeding was more successful than surgical resection. Recurrent rectal bleeding in diverticulitis or diverticulosis was not apparent in this study.

3. Surgical resection of the colon is indicated when any question of the benign nature of the lesion is present.

4. Diverticulitis and carcinoma of the sigmoid colon do appear concurrently and, in this series. most often in constricting lesions of the sigmoid colon.

5. Suppurative complications of diverticulitis have diminished with antibiotic therapy.

6. Surgical resection of a segment of the colon involved in diverticulitis represents the only definitive management of the disease.

7. Duodenal diverticula and colonic diverticula occurred together with surprising frequency.

8. A diagnosis of diverticulitis may be made clinically with radiologic evidence of diverticulosis only and in certain instances in the presence of completely negative radiologic examination of the colon.

9. Radiographic evidence interpreted as diverticulitis may exist without any clinical evidence of disease and probably represents chronic fibrotic changes in the wall of the colon without active inflammation.

10. One in two patients treated medically will have recurrence of diverticulitis. One in five patients treated surgically will also have recurrences of diverticulitis.

11. Two recommendations can be made: (a) Surgical resection of the diseased colon is advocated if the patient presents more than one severe episode of diverticulitis. (b) A barium enema should be done preoperatively in patients with atypical history of disease in the right lower quadrant of the abdomen simulating appendicitis.

References

1. Bacon, Henry E. and Valiente, Miguel: Surgical management of diverticulitis. Am. J. Surg., 91: 178, 1956.
2. Catell, Richard; Schiff, Leon; Morton, S. A. and Ochsner, Alton: Diverticulitis and diverticulosis. Postgrad. Med., 19:593, 1956.
3. Colcock, Bentley: Surgical management of diverticulitis. Surg. Gynec. & Obst., 102:721, 1956.
4. Cate, William: Colectomy in the treatment of massive melena secondary to diverticulosis. Ann. Surg., 137:558, 1953.
5. DeCosse, Jerome and Amendola, Fred: The significance of bleeding in diverticulitis of the sigmoid colon. Ann. Surg., 145:540, 1957.
6. Fallon, J.: Referred to by Oren, B. G.: Diverticulosis coli with coexisting carcinoma of the rectosigmoid. South. M. J., 40:304, 1947.
7. Goodwin, Franklin and Collins, E. N.: Diverticulosis of colon. Cleveland Clin. Quart., 15:194-201 (Oct.) 1948.
8. Goulard, Alexander and Hampton, Aubrey: Correlation of the clinical, pathological and roentgenological findings in diverticulitis. Roentgenology, 72:213, 1954.
9. Hoar, Carl S. and Bernhard, Wm. F.: Colonic bleeding and diverticular diseases of colon. Surg., Gynec. & Obst., 99:101, 1954.
10. Jensen, Garvis: Massive hemorrhage from diverticulosis of the Colon. Am. J. Surg., 95:813, 1958.
11. LeRoyer, C. P. and White, Benj.: Diagnostic and therapeutic problems in diverticulitis. New England J. Med., 239:245, 1948.
12. Mayo, Charles and Delaney, Leo.: Colonic diverticulitis associated with carcinoma. A.M.A. Arch. Surg., 72:957, 1956.
13. Morton, John: Diverticulitis of the colon. Ann. Surg., 124:725, 1946.
14. Morton, John: Diverticulitis and carcinoma of the colon. Surgery, 32:765, 1952.
15. Noer, Rudolph: Hemorrhage as a complication of diverticulitis. Ann. Surg., 141:674, 1955.
16. Oren, B. G.: Diverticulosis with co-existing carcinoma of the recto-sigmoid. South. M. J., 40:304, 1947.
17. Quinn, Wm. C.; Ochsner, Alton: Bleeding as a complication of diverticulosis or diverticulitis of the colon. Am. Surgeon, 19:397, 1953.
18. Rankin, Fred and Brown, Phillip: Diverticulitis of the colon. Surg., Gynec. & Obst., 50:836, 1930.
19. Ransom, Henry K.: Diverticulitis of colon. Gastroenterology, 26:12, 1954.
20. Rosser, Curtice: Changing concepts concerning diverticulitis. J. Internat. Coll. Surg., 14:52, 1950.
21. Rowe, R.; Kollmar, George: Diverticulitis of colon complicated by carcinoma. Internat. Abst. Surg., 94:1, 1952.
22. Smith, Daugh W.: The surgical management of diverticulitis of the colon. Am. Surgeon, 18:985-991, 1952.
23. Stanton, Arnold: Massive hemorrhage due to diverticula of the colon. Am. J. Gastroenterol., 24: 77, 1955.
24. Welch, Claude and Rodkey, Grant: Methods of therapy in diverticulitis. Surgery, 39:712, 1956.
25. Welch, Claude; Allan, Arthur W.; and Donaldson, Gordon A.: An appraisal of resection of the colon for diverticulitis of the sigmoid. Ann. Surg., 138: 332, 1953.

VENTRICULO-VENOUS SHUNT

(Continued from Page 376)

2. The mortality rate was 6 per cent due to septicemia. All of these patients had myelomeningoceles. Infection and death occurred one to three months postoperatively.

3. Sixty per cent of the patients showed demonstrable physical or mental improvement following the shunt.

4. The shunt is highly recommended in patients with myelomeningoceles, since it may reduce pressure on the myelomeningocele sufficiently so that direct attack on the latter may be avoided.

5. Ten revisions of the operation were required. Eight of these were due to obstruction of the distal catheter. This emphasized the importance of placing the distal catheter at least at the depth of the superior vena caval-auricular junction, and preferably within the confines of the right auricle.

References

1. Enderlen: Zur Behandlung des Hydrocephalus. Beit. Klin. Chir., 76:889-890, 1911.
2. Gärtner: Cited by Kausch.[5]
3. Ingraham, F. D., Matson, D. D., Alexander, E., Jr., and Woods, R. P.: Studies in the treatment of experimental hydrocephalus. J. Neuropath. & Exper. Neurol., 7:123-143, 1948.
4. Kanavel, A. B.: Discussion. Surg., Gynec., & Obst., 10:327, 1910.
5. Kausch, W.: Die Behandlung des Hydrocephalus der kleinen Kinder. Arch. Klin. Chir., 87:709-796, 1908.
6. Matson, D. D.: A new operation for the treatment of communicating hydrocephalus. Report of a case secondary to generalized meningitis. J. Neurosurg., 6:238-247, 1949.
7. McClure, R. D.: Hydrocephalus treated by drainage into a vein of the neck. Bull. Johns Hopkins Hosp., 20:110-113, 1909.
8. Nulsen, F. E., and Spitz, E. B.: Treatment of hydrocephalus by direct shunt from ventricle to jugular vein. S. Forum, 2:399-403, 1952.
9. Payr, E.: Drainage der Hirnventrikel mittlest frei transplantirter Blutgefässe; Bemerkungen über Hydrocephalus. Arch. Klin. Chir., 87:801-885, 1908.
10. Payr, E.: Über Ventrikeldrainage bei Hydrocephalus. Verh. dtsch Ges. Chir., 40:515-535, 1911.
11. Peet, M. M., Kahn, E. A.: Subdural hematoma in infants. J.A.M.A., 98:1851-1856 (May 28) 1932.
12. Pudenz, R. H., Russell, F. E., Hurd, A. H., Shelden, C. H.: Ventriculo-auriculostomy. Technique for shunting cerebrospinal fluid into the right auricle. J. Neurosurg., 14:171-179 (March) 1957.
13. Spitz, E. B.: Personal communication.

The Physiology of Micturition

By Reed M. Nesbit, M.D., and
Jack Lapides, M.D.
Ann Arbor, Michigan

MICTURITION in the normal individual is a simple co-ordinated, voluntary process which expels urine intermittently from the body. The structures primarily involved in urination are the bladder, the urethra and the nervous system. The striated muscles of the abdomen, diaphragm and pelvis play a secondary, accessory part and are not necessary for the initiation, maintenance or inhibition of urination.[1,2]

The Bladder

It is essential to understand the properties of smooth muscle as one attempts to comprehend the act of micturition. Smooth muscle is the tissue which stores urine continently and which expels it voluntarily from the body; it is also known as plain or involuntary muscle.

The term "plain" and "smooth" refer to the histologic appearance of this type of tissue as opposed to striated muscle. The term "involuntary" has also been used because "speaking generally, the contractions of this tissue are removed from the direct control of the will, being regulated by reflex and usually unconscious stimulations from the central nervous system."[8] This concept, set forth by Howell must now be modified, for recent experiments conducted by Lapides, Sweet and Lewis and employing curare and anectine[13] demonstrate unequivocally that bladder smooth muscle is controlled directly by the higher nerve centers. These investigators found that normal subjects in whom all striated muscles were paralyzed were able to urinate voluntarily, could stop voiding at will, and could empty their bladders completely. Their experiments prove conclusively that striated muscles play a minor role in micturition, and show, as well, that the smooth muscle of the bladder is under voluntary control of the higher centers mediated over the parasympathetic nervous pathways.

A most important characteristic of smooth muscle is its ability to develop a state of tonus, that is, a condition of maintained contraction and increased tension. The appropriate stimulus for such tonicity is extension or stretching of the muscle. In the case of bladder muscle, the stretching of the bladder walls by urine constitutes the physiologic stimulus for the development of tonicity. This property is inherent in smooth muscle and is completely independent of the central nervous system. The property of tonicity is so rugged that it is not dissipated until ten to twenty minutes after death.[17] In fact, bladder tonicity persists for a short time after the bladder has been removed from the body and has been exposed to room temperature.[10]

Tonic contraction of smooth muscle is associated with a negligible expenditure of energy and a resistance to fatigue.[4] It is obvious that any injury to the nervous system such as transverse myelitis accompanied by spinal shock will not affect basic bladder tonicity[15,17] since this is an intrinsic property of smooth muscle and is independent of the central nervous system. The bladder becomes atonic only when its musculature has become decompensated from prolonged over-distention; never from deafferentation, *per se,* as occurs in the skeletal muscles of the extremities following posterior rhizotomy or during spinal shock.

Perhaps the most significant aspect of smooth muscle tonicity is its relationship to the function of the internal vesical sphincter. For many years the exact structure, location and mechanism-of-action of the so-called internal vesical sphincter have been an enigma. Numerous theories have been proposed concerning it, but none has withstood critical evaluation. Recent investigations[10] indicate that the internal vesical sphincter comprises the entire urethra in the female and the posterior urethra in the male (the portion extending from the internal urethral orifice to the ejaculatory ducts). The posterior urethra and the bladder have a common *anlage* in that both are developed from the vesico-urethral sac of the urogenital sinus.

From the Department of Surgery, Section of Urology, University of Michigan Medical School, Ann Arbor, Michigan.

We believe, in concord with Evans[5] and Griffiths,[6] that the proximal urethra is the true neck of the bladder, both anatomically and functionally. This portion of the urethra possesses the same muscle layers and nerve fibers as does the fundus of the sphincter during urination. All investigators are agreed that the vesical neck opens and becomes funnel-shaped when micturition commences. Cinefluorographical examination shows that the bladder base seems to descend,[1,7] while cystoscopy[10] shows

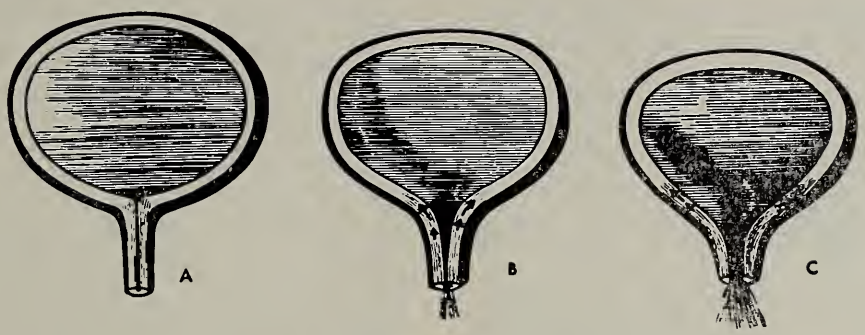


Fig. 1. Bladder change from flask-like structure to spherical shape during micturition.

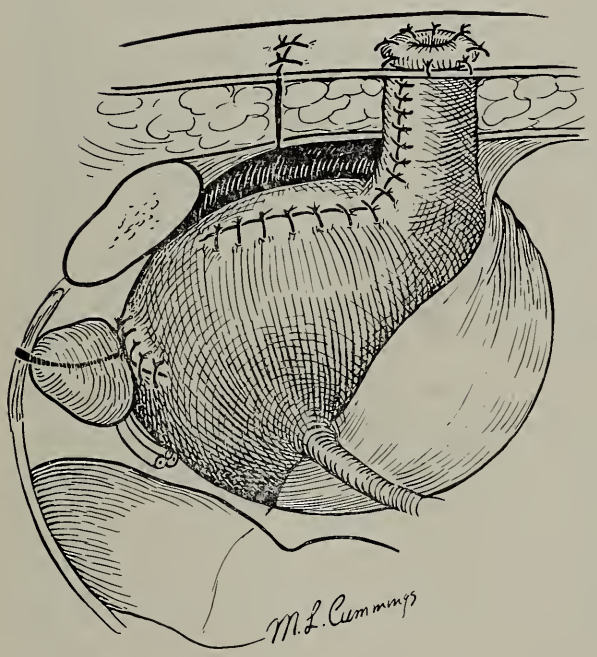


Fig. 2. Experimental muscular conduit replacing urethra in dogs with retained bladder control.

bladder. While the bladder is filling with urine and micturition is not taking place, no motor impulses are transmitted to the bladder fundus or neck (proximal urethra); the neck of the bladder (or proximal urethra) maintains the continence of urine by virtue of the inherent tonicity of its smooth muscle. This resistance is sufficient to keep the urine in the bladder under ordinary conditions of daily living.

Let us now consider the function of the vesical that the most proximal portion of the posterior urethra appears to be drawn up, merging into the globular fundus. Evans[5] recorded action potentials from the fundus and the neck of the bladder during urination and found the same type and pattern of activity occurring simultaneously in both areas. *All of these observations suggest that the bladder neck opens not because of muscle relaxation but because of active contraction of the entire bladder musculature.* In essence, when motor impulses from the central nervous system stimulate contraction of the muscle fibers of the bladder fundus and neck, the bladder tends to change from a flask-like structure to a more spherical shape by pulling the urethra open and shortening it (Fig. 1). When the voiding contraction of the bladder ceases, the muscle resumes its former tension and configuration (the muscle at the outlet of the bladder changes back from a globular to a tubular form). The validity of these explanations has been demonstrated conclusively in the experiments carried out by Lapides at the University of Michigan and reported at a recent meeting of the American Urological Association.[10] Lapides performed operations upon dogs removing the entire urethra and closing off the bladder outlet with sutures. A muscle flap was then raised at the dome of the bladder and fashioned into a tube; and the end was brought out to the belly wall where it was anastomosed to the skin (Fig. 2). Three weeks after the operation all the animals were found to have complete urinary control, voluntarily voided through the

muscular conduit and emptied their bladders. It was discovered that complete continence of urine depended upon the length of the conduit, a two centimeter length being essential. In these and other experiments, it was demonstrated that shorter urethras, either natural or artificial, did not provide complete urinary continence in the animals.

This same operation was performed upon a man who had urinary obstruction because of extensive urethral stricture. In addition, this patient suffered from advanced organic brain syndrome and had a neurogenic bladder of the uninhibited type. After operation he was observed to void through the newly-formed conduit with a forceful uninterrupted stream in amounts of 250 to 300 cc. and emptied his bladder completely. He dribbled no urine during the time interval between involuntary voidings; his bladder functioned precisely like the bladder in a newborn baby.

Another property of bladder smooth muscle is its ability to maintain a relatively low constant intravesical pressure as volumes of fluid increase. The constant low pressure permits the ureters to pump urine into the bladder without placing an excessive burden on the ureteral musculature. Normal intravesical pressure is far below the pressure required to force the vesical neck open, and thus it is coordinated nicely with the mechanics of action of the internal vesical sphincter.

Before we proceed to the relationship of the nervous system to micturition, it would be well to summarize briefly the intrinsic characteristics of the bladder. The bladder is composed of two parts, the fundus and the neck. The neck consists of the entire urethra in the female and of the posterior urethra in the male. The neck is synonymous with the internal vesical sphincter in that it is primarily responsible for keeping urine in the fundus of the quiescent bladder. The inherent tension and contraction of the bladder smooth muscle in the neck, in response to urine pressure in the fundus, keeps the walls of the vesical neck in close approximation and prevents the escape of urine. As the bladder fills with urine, the muscle adjusts its tension and state of contraction so that the intravesical pressure remains low and approximately constant.

Two properties of bladder muscle, namely, tonicity and accommodation, are intrinsic and are completely independent of the central nervous system. Without receiving stimuli from the central nervous system, the bladder cannot initiate a true voiding contraction and open its neck. In the human being, the bladder does not exhibit rhythmic contractions.

The Nervous System—Spinal Reflex Arc

The basic requisites necessary to the efficient emptying of the bladder at regular intervals are a normal bladder musculature and an intact normal lower reflex arc. This situation obtains in babies and in some paraplegics whose bladders empty periodically and involuntarily.

Before the components of the lower reflex arc are discussed, it would be well to evaluate the functions of the sympathetic and parasympathetic nervous systems in micturition. Experimental studies in the normal subject and in the paraplegic patient[12] indicate that neither stimulation nor inhibition of the thoraco-lumbar or sympathetic portion of the autonomic nervous system has any effect on micturition. Pre-sacral neurotomy in the human being does not influence urination.[16] Cholinergic and anticholinergic drugs, however, have a profound effect on bladder voiding contractions.[12] Thus, on the basis of experimental evidence, the parasympathetic nervous system appears to provide the motor fibers for the bladder fundus and neck. *The sympathetic system has no influence on the initiation, maintenance or inhibition of urination in the human being and should be eliminated from all future discussions of bladder physiology.*

Most of the sensory nerve fibers coming from the bladder accompany the parasympathetic motor fibers in the pelvic nerve and carry both exteroceptive and proprioceptive sensations to the central nervous system. The exteroceptive sensations include pain and temperature, while the proprioceptive endings give rise to the desire to void and the feeling of bladder fullness. The motor neurones lie in the lateral horn of the sacral spinal cord at the levels of S_2, S_3 and S_4. The motor fibers extend from the motor neurone to the wall of the bladder where ganglionic synapses and postganglionic fibers are situated. Figure 3 illustrates the spinal reflex as concerned with micturition.

As the bladder fills with urine, the proprioceptive endings are stretched and nerve impulses are carried to the spinal cord. In the spinal cord the sensory impulses bombard, and eventually cause a discharge, of the lower motor neurones. The motor impulses arising in the neurones travel over the efferent fibers, ganglionic synapses and neu-

romuscular endings, to stimulate contraction of the muscle of the bladder fundus and neck. The bladder fundus contracts down upon the bolus of urine and at the same time pulls open the tubular bladder neck to expel the urine.

Before the urine can traverse the entire urethra in the male, relaxation of the external urethral sphincter must take place. This muscle is striated and its motor neurones lie in the anterior horn of sacral spinal segments 2, 3 and 4. While the bladder is being filled with urine and is not undergoing a voiding contraction, the external urethral sphincter is in a tonic state by reason of motor impulses traveling over the pudendal nerve to the muscle. This striated muscle differs from bladder neck smooth muscle in that it demands continuous motor impulses in order to remain in a tonic state. When a voiding contraction of the bladder is initiated, a reflex relaxation of the external urethral sphincter occurs. The afferent limb of the reflex arc to the external sphincter is in the pelvic nerve while the efferent limb is in the pudendal nerve.[5] It should be emphasized that relaxation of this muscle always follows contraction of the detrusor and never precedes it. The external urethral sphincter cannot be completely relaxed voluntarily.[3] The primary function of this muscle is to stop urination suddenly.[13] Micturition can be halted within one to two seconds with the aid of the external sphincter, whereas ten to fifteen seconds are required to stop urination when the external sphincter has been paralyzed.

In addition to its function in inhibiting micturition rapidly, the external urethral sphincter in the male serves to maintain continence when the bladder neck or internal sphincter is incapacitated, for example, following prostatectomy, and when the intravesical pressure is unusually high. In the female, the external urethral sphincter is a flimsy muscle surrounding the urethral meatus and is of little functional importance.

The Nervous System—Higher Center Control

In the preceding discussion a mechanism for the intermittent expulsion of urine from the body has been described. The essential mechanism includes the bladder fundus, bladder neck (proximal urethra or internal vesical sphincter), and the spinal reflex arc. In infants, and in some paraplegic patients, this mechanism, without aid from the brain, serves to empty the bladder completely, at intervals.

As the infant grows, the long spinal nerve tracts linking the higher centers to the lower spinal reflex arcs begin to funtion. Exteroceptive sensation is carried to the higher centers by the lateral spinothalamic tract, while proprioceptive impulses ascend by way of the fasciculus gracilis. The spinal reflex arc concerned with micturition is brought under the control of the higher centers through the descending cortico-regulatory tracts. It is generally believed that the pyramidal, as well as extrapyramidal, tracts comprise the cortico-regulatory tract. Figure 3 depicts the gross nervous structures concerned with urination.

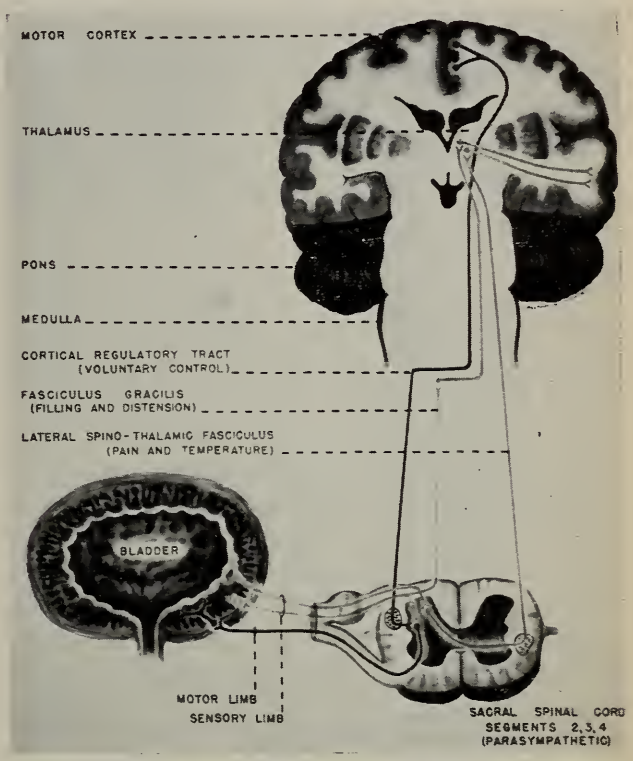


Fig. 3. Neuroanatomy illustrating gross nervous structures concerned with urination.

The areas in the brain concerned with micturition are ill-defined at the present time.[2,9,14] Irrespective of the points of origin of impulses which descend the cortico-regulatory tracts, it is well established, clinically as well as experimentally, that the cortico-regulatory tract can initiate, as well as inhibit, voiding contractions of the bladder by directly influencing the lower motor neurones to the bladder.

The higher centers do not regulate the basic tonicity of bladder smooth muscle; nor do the emotions have any effect on bladder tonicity. The primary function of the brain in micturition is to

set in motion a voiding contraction of the bladder or to stop (or inhibit) a voiding contraction that is already in progress. The voiding contraction is superimposed upon the quiescent basic tonicity of the bladder. Thus it is the variations in the voiding contraction that are observed with various emotions and lesions of the brain and not the resting basic tonicity of the detrusor. It may seem picayunish to emphasize repeatedly that the bladder smooth muscle possesses an inherent tonicity; but it is precisely this property of bladder muscle which is the key to an understanding of bladder physiology.

Summary

The primary structures necessary for the initiation, maintenance and inhibition of urination are the bladder fundus, the bladder neck (synonymous with posterior urethra or internal vesical sphincter), and the nervous system. Basic tonicity, an intrinsic property of bladder smooth muscle, is responsible for the maintenance of urinary continence. Voluntary control of urination is exerted through the cortico-regulatory tracts (from the higher centers) upon the motor neurones of the bladder—a direct cortical control over smooth muscle. The motor nerves extending to the bladder are parasympathetic in origin.

The sympathetic nervous system has no demonstrated function in micturition. Some of the striated muscles of the body may play a secondary, supporting role. The external urethral sphincter is necessary for sudden interruption of urination, and for maintenance of continence in the male, when the vesical neck (internal vesical sphincter) has been incapacitated.

Reference

1. Benjamin, J. A., Joint, F. T., Ramsay, G. H., Watson, J. S., Weinberg, S. and Scott, W. W.: Cinefluorographic studies of bladder and urethral function. Tr. Am. A. Genito-Urin. Surgeons, 46:43, 1954.
2. Bors, E.: Neurogenic bladder. Urol. Survey, 7:177, 1957.
3. Denny-Brown, D. and Robertson, E. G.: On the physiology of micturition. Brain, 56:149, 1933.
4. Evans, C. L.: The physiology of plain muscle. Physiol. Rev., 6:358, 1926.
5. Evans, J. P.: Observations on the nerves of supply to the bladder and urethra of the cat with a study of their action potentials. J. Physiol., 86:396, 1936.
6. Griffiths, J.: Observations on the urinary bladder and urethra. J. Anat. & Physiol., 25:535, 1891.
7. Hinman, F., Jr., Miller, G. M., Nickel, E. and Miller, E. R.: Vesical physiology demonstrated by cineradiography and serial roentgenography. Radiology, 62:713, 1954.
8. Howell, W. H.: A Text-Book of Physiology. Philadelphia,: W. B. Saunders, 1933.
9. Langworthy, O. R., Kolb, L. C. and Lewis, L. G.: Physiology of Micturition. Baltimore: Williams and Wilkins, 1940.
10. Lapides, J.: Structure and function of the internal vesical sphincter. J. Urol., 80:341, 1958.
11. Lapides, J., Hodgson, N. B. and Boyd, R. E.: Effect of adrenolytic, adrenergic, anticholinergic, cholinergic and antihistaminic drugs on micturition. S. Forum, 8:650, 1957.
12. Lapides, J., Hodgson, N. B., Boyd, R. E., Shook, E. L. and Lichtwardt, J. R.: Further observations on pharmacologic reactions of the bladder. J. Urol., 79:707, 1958.
13. Lapides, J., Sweet, R. B. and Lewis, L. W.: Role of striated muscle in urination. J. Urol., 77:247, 1957.
14. Nathan, P. W. and Smith, M. C.: Long descending tracts in Man. I. Review of present knowledge. Brain, 78:248, 1955.
15. Nesbit, R. M. and Lapides, J.: Tonus of the bladder during spinal "shock." Arch. Surg., 56:139, 1948.
16. Nesbit, R. M. and McLellan, F. C.: Sympathectomy for the relief of vesical spasm and pain resulting from intractable bladder infection. Surg. Gynec. & Obst., 68:540, 1939.
17. Tang, P. C. and Ruch, T. C.: Non-neurogenic basis of bladder tonus. Am. J. Physiol., 181:249, 1955.

WAYNE STATE UNIVERSITY ENROLLMENT

Enrollment at Wayne State University totaled 20,430 this semester with all but one college showing an increase over a year ago.

Figures released by the University's Division of Admissions and Records show 18,535 students enrolled in on-campus credit programs while another 1,895 are taking off-campus credit classes in the Detroit metropolitan area. The number of full-time students at the University also increased from 8,535 to 9,253, a rise of 8.4 per cent.

Despite the increases in the various colleges, over-all enrollment was down from the 21,894 fall figure of 1957. The decrease was caused by the termination last August of the University's non-matriculated student classification. More than 3,800 students were enrolled in this program in the fall of 1957.

Abuse of Single Whole Blood Tranfusions

By William Umiker, M.D., and
Paul Hodgson, M.D.
Ann Arbor, Michigan

THE expansion of blood banks and the development of sensitive techniques for determining the compatibility of blood to be transfused have obviated the dangers of unreplaced blood loss. This advancement has imposed new responsibilities on the physician to avoid unnecessary transfusions of blood and blood products because dangers continue to exist.[5,9,16,17,19]

A number of misuses of blood transfusions have been recorded: (1) overtransfusion during emergencies;[9] (2) unnecessary use during operations which are not attended by appreciable blood loss;[5] (3) substitution for anti-anemia agents;[16,17,19] (4) treatment of operative hypotension due to vasodilatation, especially during spinal anesthesia;[1] and (5) *use of the single transfusion,* which according to Allen and Stemmer,[1] is the greatest abuse. Robertson[16] found as many questionable indications for blood transfusions on a medical service as on a surgical or obstetric service.

This review of 100 consecutive single blood transfusions was instigated to gain some facts about the indication for the transfusion and the frequency of its use. The clinical records were reviewed to provide information on the actual need for the transfusions.

While it was difficult to delineate criteria for the use of single transfusions, it was not as difficult to recognize the cases in which single transfusions were not indicated or were inadequate.

Findings

Although almost 25 per cent of the patients who were transfused during the period of this study received only 500 ml. of whole blood, less than 5 per cent of the total blood was used for single transfusions. Ten of the 100 single transfusions were given to medical patients, eight were employed preoperatively or postoperatively, and eighty-two were given during an operation.

Of the ten single transfusions administered to patients on the medical service, eight were supportive for patients with advanced cancer or severe anemia secondary to renal disease, and were insufficient to improve the existing anemia (Table I).

TABLE I. STATUS OF 100 PATIENTS WHO RECEIVED SINGLE TRANSFUSIONS

Non-Surgical Patients	
Generalized carcinomatosis	4
Leukemia	1
Urinary tract infection	3
Portal cirrhosis with esophageal varices	1
"Terminal shock"	1
TOTAL	10
Surgical Patients	
Preoperative	4
Postoperative	4
During operation	82
TOTAL	90

One patient who had a chronic urinary tract infection had a favorable response to a single transfusion, with an elevation in hemoglobin concentration from 10.5 gm. per cent to 13.0 gm. per cent. This increase may have exposed an error in hemoglobin determination or may have represented a satisfactory readjustment of the hematocrit in the face of a nearly normal blood volume.

Of the eight surgical patients who received a transfusion prior to, or following an operation, three were not given sufficient blood to elevate the hemoglobin level to 11.5 gm. (Table II). One preoperative transfusion was given to a patient who had a hemoglobin level of 13.9 gm. prior to tranfusion. In three instances the data was incomplete. The one single transfusion which may have been indicated was given to an elderly patient whose hemoglobin level was corrected from 10.6 to 12.1 gm. by the transfusion in the postoperative period.

The blood replacement during various operations is presented in Tables III and IV. With the exception of neurosurgical procedures, the mean quantity of blood used was directly related to the magnitude of the procedure; and thus, as expected,

From the Departments of Pathology and Surgery, Veterans Administration Hospital and the University of Michigan Medical School, Ann Arbor, Michigan.

single transfusions were given more frequently for operations associated with limited blood loss.

The operative records were examined carefully for statements concerning the indication for transfusion. Usually the estimate of the surgeon for the blood loss encountered during an operation was either not mentioned, or was described in non-quantitive adjectives such as: "not excessive," "usual," "less than 300 ml.," or "brisk." The estimates could not be related to changes in vital signs or to changes in hemoglobin concentration.

TABLE II.
ANALYSIS OF 100 WHOLE BLOOD TRANSFUSIONS

	During Operation	Preoperative or Postoperative	Medical	Total
Probably not needed	31	1	1	33
Insufficient	27	3	8	38
Possibly indicated	15	1	1	17
Data incomplete	9	3	0	12
Total	82	8	10	100

The pulse and blood pressure changes during operations, following which the hemoglobin level equaled or exceeded the preoperative level, were similar to those in which the postoperative hemoglobin level had decreased 2.0 gm. or more.

Since the indications for blood transfusions were seldom noted, and the operative records of pulse and blood pressure did not reflect blood loss accurately, it was necessary to use changes in the hemoglobin content for determining the need for blood. Although hemoglobin concentration does not measure red cell mass accurately unless accompanied by blood volume determination, it does provide some comparative information on the effect of blood loss and transfusions in similar operations.

Arbitrarily it was assumed that a transfusion of a single unit of blood was not necessary when:

1. The postoperative hemoglobin concentration was 12.5 gm. per cent or greater and was not more than 0.5 gm. per cent less than the preoperative level.

2. There was no record of excessive bleeding, or of bleeding estimated to be greater than 300 ml.

Thirty-eight per cent of the surgical patients fulfilled these criteria (Table IV).

The criterion for insufficient transfusion of blood was a fall in the postoperative hemoglobin level of 1.0 gm. or more, suggesting a deficit of 500 to 1000 ml. of blood in addition to the 500 ml. replaced by the single transfusion. Thirty-three per cent of the patients were classified in this group (Table IV). Study of individual cases suggested that transfusions should have been given more often or in larger quantities during neurosurgical, urologic, and orthopedic operations. This is supported by the findings in Table IV. There was a mean postoperative hemoglobin level decrease of 3.2 gm. in the neurosurgical, and 1.4 gm. in the orthopedic and urologic cases; while the decrease was only 0.3 and 0.6 gm. in the general and thoracic surgical procedures. It is further supported by reports of mean blood losses of 1,100 ml. and 650 ml. for neurosurgical and orthopedic procedures, respectively,[4,9,11] while in our series the respective mean volumes replaced were only 300 ml. and 370 ml.

TABLE III.
BLOOD REPLACEMENT FOR VARIOUS OPERATIONS
Veterans Administration Hospital, Ann Arbor

Operation	Average Replacement ml.	Total Cases Transfused	Single Transfusions* Per Cent
Thoracic	1050	81%	14
Intestinal	1050	82	22
Gastric	980	87	31
Orthopedic	370	29	24
Transurethral resection of prostate	320	43	65
Biliary	310	49	78
Neurosurgical	300	25	20
Thyroid	70	13	100

*Per cent of total transfusions.

TABLE IV. ANALYSIS OF SINGLE TRANSFUSIONS DURING OPERATIONS

Surgical Division	Total Procedures	Single Transfusions	Not Needed	Not Sufficient	Probably Indicated	Data Incomplete	Mean Hemoglobin Decrease
General*	490	30	18(60%)	6(20%)	4	2	0.3 gm.
Neurosurgical	66	7	(0%)	4(57%)	1	2	3.2 gm.
Thoracic	42	7	3(43%)	2(29%)	2	0	0.6 gm.
Orthopedic	122	17	6(35%)	7(41%)	2	2	1.4 gm.
Urologic	133	15	2(13%)	6(40%)	5	2	1.4 gm.
Miscellaneous		6	2(33%)	2(33%)	1	1	
Total		82	31(38%)	27(33%)	15(18%)	9(11%)	

*Principally abdominal and thyroid surgery.

Discussion

The fact that single transfusions made up only 5 per cent of the total whole blood used, indicates to us that when blood is indicated, a single transfusion is seldom sufficient to replete the deficit. Nevertheless, almost 25 per cent of the patients who were transfused, received only one transfusion.

It is recognized that one must be cautious in interpreting the indications for transfusion on the basis of the arbitrary criteria used. Though there is room for mature judgment in prescribing a transfusion, our analysis indicates that about 70 per cent of the single transfusions constituted insufficient blood replacement, or were not indicated.

While the replacement of blood is a part of good operative technique, there is a controversy on the extent to which blood loss should be replaced. Some authorities maintain that it is necessary to replace loss of less than 500 ml. in adults, because it requires up to fifty days for a hemoglobin level to return to normal after even such small losses.[6,12] Others believe that the usual amounts of blood lost during procedures such as appendectomy, hemorrhoidectomy, cholecystectomy, mastectomy, and thyroidectomy do not justify blood transfusions, and losses up to 600 or 700 ml. do not require replacement since such a loss does not disturb postoperative convalescence appreciably.[1,5,7] White *et al*[9] found that blood losses up to 1,200 ml. during neurosurgical procedures rarely produced signs and symptoms of hypovolemia.

Patients undergoing operations differ greatly in their blood requirements. Infants, elderly persons, or chronically-ill patients with contracted blood volumes must have careful replacements of even small losses since they are more susceptible to shock and are more sensitive to changes induced by anesthesia.[2,14] However, hypovolemia and a reduced red blood cell mass are a consideration in preoperative management which can be satisfied by appropriate repletion of blood or its fractions prior to operation. Blood volume determination and careful clinical estimation are helpful in guiding this repletion. Likewise, the measurement of operative blood loss by colorimetric or gravimetric methods should be encouraged, especially in poor risk patients.[3,11,13]

Although blood pressure and pulse recordings may be of value in estimating blood loss in injured healthy men,[8,10] they are not reliable guides during operations, because there are so many factors acting concurrently. In this study the lack of correlation between the hemoglobin changes and these vital signs was striking. Although we are aware that the hemoglobin concentration is a misleading indication for blood replacement, in actual practice it is a practical means of estimating the needs of a patient for whole blood during the postoperative course.

Over-replacement of blood was very frequent in operations on the stomach and biliary tract while under-replacement attended neurosurgical, urological, and orthopedic procedures. As expected, the percentage of single transfusions was high in those operations associated with a small average blood loss.

There would be less need to question the position of single whole blood tranfusion if no hazards existed. However, there is always the possibility of sensitization to known or unknown blood factors and of serum hepatitis. The number of deaths from overloading the cardiovascular system is difficult to assess, but this consideration remains as a real danger. Finally, breaks in blood banking and administration techniques still result in hemolytic incompatibility reactions and bacterial contamination of blood.

Conclusions

1. Single transfusions were administered to 22.9 per cent of patients who received blood transfusions during the period of this study.
2. Ten per cent of the single transfusions were used for non-surgical patients for the treatment of severe anemia, resulting chiefly from widespread cancer or infections of the urinary tract. Most of these transfusions did not alter the anemia appreciably, probably should not have been given, or should have been supplemented by additional transfusions.
3. Ninety per cent of the single transfusions were used for surgical patients, 82 per cent during operations. In 38 per cent of these, there was no convincing indication for transfusion, and in 33 per cent insufficient blood was used. In another 11 per cent, the data were incomplete.
4. Over-use of blood was more frequent during abdominal operations and under-use during neurosurgical, urologic, and orthopedic procedures.
5. Preoperative correction of hemoglobin con-

centration and blood volume in elderly or poor-risk patients, and colorimetric or gravimetric determinations of operative blood loss would eliminate most single transfusions during operations.

6. This analysis has emphasized the continuing need for careful definition of the indication for a whole blood transfusion.

References

1. Allen, J. G., and Stemmer, E. A.: The use of blood and plasma in surgical practice. Surg. Clin. N. America, Philadelphia Number. Pp. 1597-1611. Philadelphia and London: W. B. Saunders Co., Dec., 1955.
2. Beling, C. A., Bosch, D. T., and Carter, O. B., Jr.: Symposium on geriatric surgery; blood volume in geriatric surgery. Geriatrics, 7:179-183 (May-June) 1952.
3. Bonica, J. J., and Lyter, C. S.: Measurement of blood loss during surgical operations. Am. J. Surg., 81:496-502 (May) 1951.
4. Coller, F. A., Crook, C. E., and Iob, V.: Blood loss in surgical operations. J.A.M.A., 126:1-5 (Sept. 2) 1944.
5. Fagan, K.: The use and abuse of blood transfusions. M. J. Australia, 2:881-883 (Nov. 26) 1955.
6. Fowler, W. M., and Barer, A. P.: Rate of hemoglobin regeneration in blood donors. J.A.M.A., 118:421-427 (Feb. 7) 1942.
7. Gatch, W. D., and Little, W. D.: Amount of blood lost during some of the more common operations. J.A.M.A., 83:1075-1076 (Oct. 4) 1924.
8. Grant, R. T., and Reeve, E. B.: Observations on the general effects of injury in man, with special reference to wound shock. London: H. M. Stationery Office, 1951. (Med. Research Council of the Privy Council, Special Report Series No. 277.)
9. Hollander, F. G., and Kinports, E. B.: An analysis of blood replacement in major surgery at Mercy Hospital, San Diego. West. J. Surg., 64:231-234 (May) 1956.
10. Kekwick, A., Marriott, H. L., Maycock, W. d'A. and Whitby, L. E. H.: Diagnosis and treatment of secondary shock; a study of 24 cases. Lancet, 1:99-103 (Jan. 25) 1941.
11. Lenahan, N. E., Spitz, T. A., and Metcalf, DeF. W.: Blood determination and estimation of blood loss during surgical operations. Arch. Surg., 57:435-442 (Sept.) 1948.
12. Leriche R., and Vasilaros, E.: De la perte de sang occasionnée par les diverses opérations. Contribution à l'étude de la maladie postopératoire. Mém. Acad. chir., 65:1242-1245 (Nov. 29) 1939.
13. Nesbit, R. M., and Conger, K. B.: Studies of blood loss during transurethral prostatic resection. J. Urol., 46:713-717 (Oct.) 1941.
14. Parsons, W. H.: Blood replacement therapy; use and abuse. Surg., Gynec. & Obst., 102:241-243 (Feb.) 1956.
15. Pilcher, F., and Sheard, C.: Measurements on the loss of blood during transurethral prostatic resection and other surgical procedures, determined by spectrophotometric and photelometer methods. Proc. Staff Meet., Mayo Clin., 12:209-213 (April 7).
16. Robertson, T.: The use and abuse of blood transfusions. New York J. Med., 55:1140-1144 (April 15) 1955.
17. Straus, B., and Torres, J. M.: The use and abuse of blood transfusion. J.A.M.A., 151:699-701 (Feb. 28) 1953.
18. Wangensteen, O. H.: The controlled administration of fluid to surgical patients including description of gravimetric methods of determining status of hydration and blood loss during operation. Minnesota Med., 25:783-789 (Oct.) 1942.
19. Whitby, L.: The use and abuse of transfusion. Ulster M. J., 24:103-112 (Nov.) 1955.
20. White, J. C., Whitelaw, G. P., Sweet, W. H., and Hurwitt, E. S.: Blood loss in neurosurgical operations. Ann. Surg., 107:287-297 (Feb.) 1938.

FACTS ABOUT PENICILLIN

Penicillin would probably have been lost as a weapon in modern drug therapy without the facilities and priceless know-how of the American pharmaceutical industry.

These facts are revealed in the current economic report of the Federal Trade Commission on antibiotic drugs which literally did not exist prior to 1941. In contrast, doctors wrote 73 million prescriptions for antibiotics in 1955, according to the Health News Institute. In 1956 antibiotic output in this country totaled 1,740,062 pounds.

The total of private and public funds authorized for new plant expenditures during World War II for antibiotics production was $30,218,367, at a final cost of $25,993,394 to private industry and $4,224,973 to the government.

Penicillin was discovered in 1929 by Sir Alexander Fleming, a British bacteriologist. But it was not until 1941 that enough of this life-saving material could be produced for it to be used on human patients. The facilities of American pharmaceutical companies were put to work in a crash program to produce the vital penicillin for wartime use. By March, 1942, the first U. S. patient was treated with penicillin, and by June, 1944, the Army and Navy had adopted penicillin as routine treatment for syphilis and other infections.

An Evaluation of Medications Commonly Used in Asthma

By John M. Sheldon, M.D., L. Dell Henry, M.D. and James A. McLean, M.D.

Ann Arbor, Michigan

THE problems facing every clinician when he first meets a patient with an allergic disease are that of immediate control of the patient's symptoms and a studied approach to prevent further attacks. There is complete agreement among physicians as to the long-range therapy in the prevention of allergic disturbances. Such treatment includes the recognition of the etiologic triggers through a careful history and physical examination and the selective use of laboratory facilities, including skin tests. The problem of symptomatic control, however, has not met unanimity of opinion and perhaps through the development of newer medications we frequently lose sight of long-proven, valuable, old medications. The purpose of this communication is to attempt a critical evaluation of commonly used anti-allergic therapy both old and new.

Sympathomimetic Amines

The outstanding member of this group of very effective medications is epinephrine hydrochloride (adrenalin). It is useful particularly in bronchial asthma both by parenteral administration and by oral inhalation through nebulization of a fine spray. When given subcutaneously, the dosage is a patient-variable but usually in the range of 0.3 to 0.5 cc. of 1:1000 dilution (children 0.1 to 0.2 cc. of 1:1000) and may be repeated at fifteen minute intervals for three or four additional doses. Amounts in excess of those listed usually do not give added therapeutic effects because of local vascular constriction and decreased absorption. A large dosage also often will increase the pressor effects of tremor, shakiness, tachycardia and pallor. Longer-acting epinephrine (adrenalin in oil, Susphrine,® and Epinephrine Gel®) preparations are also available. One injection given in the evening may permit many hours of relief and a good night's rest.

There are a number of adrenalin-like compounds for oral inhalation available including epinephrine hydrochloride in strength of 1:100 and Isupropyl Arterenal (Isuprel,® Aludrine® Isonorine,® Norisodrine,® and Aeroline compound.®) One to four inhalations of any one of this group will often give dramatic relief to the asthmatic. These have the advantage of self medication and give great reassurance to the patient. Their effectiveness in asthma is largely dependent upon inhalation of the vapors to the lower lung structures; therefore, careful instruction in the use of the nebulizer so that the patient inhales as the medication is nebulized is important for its successful usage.

There are several synthetic sympathomimetic amines available for oral administration including ephedrine sulfate, Orthoxine,® and Isuprel.® In our experience, ephedrine sulfate is by far the most effective, but has the disadvantage of producing undesirable symptoms which may be greatly reduced in most patients by the simultaneous administration of a barbiturate. It must be recognized that these oral bronchial dilaters will not in themselves relieve a moderately severe or a severe paroxysm of asthma. However, they are extremely useful when given every four to five hours, especially if given continuously over long periods of time in prevention of attacks. Sublingual bronchodilaters, such as Isuprel® in 5 mg. to 10 mg. doses, in a few selected cases with mild to moderately severe asthma, are useful in relief of the attack but are not of particular value in prevention of paroxysms.

Xanthines

In consideration of all of the bronchodilators, the theophylline group (aminophylline) is undoubtedly the most dramatic, especially when

From the Section of Allergy, Department of Internal Medicine, The University of Michigan Medical Center, and St. Joseph Mercy Hospital, Ann Arbor, Michigan.

given intravenously, in its therapeutic effect. It is our belief that intravenous aminophylline should be used only when it has been established that adrenalin will not relieve the attack. When administered intravenously it should be well diluted (0.25 gm. to 0.5 gm.) in 20 cc. to 250 cc. of isotonic glucose solution, and administered slowly (ten minutes to ninety minutes) at room temperature. Intramuscular theophylline compounds, although quite effective, should not be used routinely, because they produce severe pain and may cause tissue destruction at the site of administration. The oral route is the least efficient means of administration. In combination with ephedrine and a barbiturate, however, it often results in complete control of chronic asthma. This therapeutic action may possibly be explained by a synergistic property of the combination of drugs.

There may also be an element of bronchial obstruction present which will respond to bronchodilater drugs, even in the asymptomatic asthmatic patient whose chest is clear to auscultation.[4] Thus, it is felt that bronchodilaters taken only during the period of actual symptoms will benefit only the more severe spasm noted by the patient, while daily oral preparations taken every four hours or five hours will provide a better and more adequate pulmonary ventilation. Taking the medication with or after meals reduces gastric irritation. We have observed that patients with seasonal symptoms who receive oral bronchodilaters throughout the entire season, and those with perennial symptoms who continue on this program the year round, do exceedingly well. In addition, the use of an enteric coated delayed-action preparation at bedtime to insure a continuous effect throughout the night is extremely helpful.

Aminophylline suppositories 0.5 gm. are very effective in many patients but in many others they produce rectal irritation and certain individuals have difficulty in retaining them. In both instances, retention enemas containing 0.5 gm. to 1.0 gm. of aminophylline in 100 cc. to 150 cc. of tap water may be tolerated.

We should like again to point out that children often do not tolerate aminophylline either by intravenous or rectal route. Acute toxicity frequently occurs and even death has been reported.[16] There are a number of newer theophylline preparations, such as, Choledyl® and Elixophylline,® which may be given in fairly large dosage without producing gastric irritation. This latter compound usually is well tolerated and often quite effective in children. The usefulness of these preparations also occupies a very important place in the elderly asthmatic patient when ephedrine-containing compounds produce urinary retention symptoms.

Expectorants

Iodides are by far the most effective of this group of compounds and have stood the test of time. Although the main pharmacologic action is an expectorant one, many experienced clinicians believe that the iodides also possess another action which produces a remarkable amelioration of asthmatic symptoms for long periods of time in some patients.

It is felt, therefore, that iodides are a valuable addition to symptomatic bronchodilaters and the drugs should be administered jointly. From the many preparations available, syrup of hydriotic acid in doses of 5 cc. four times daily has been the most useful in children. For adults the saturated solution of potassium iodide in dosages of 15 gtt. to 30 gtt. in water after meals has proved most efficacious. Potassium iodide crystals (30 mg.) in combination with ephedrine sulfate (32 mg.), phenobarbital (32 mg.), and aminophylline 100 (mg.) have become very useful in our hands and are available commercially.

The majority of asthmatic patients tolerate iodides quite well but a few may have side effects,[2] the most common being an acneiform skin eruption or swelling of the submaxillary and/or parotid glands. Fever is occasionally a manifestation of drug idiosyncracy to iodides. If this fact is kept in mind, it may aid the physician in diagnosing an otherwise unexplained temperature spike in his patient. Recent reports have shown that prolonged iodide administration also can bring about a true hypothyroid state.[5,13] We have observed three cases of this type. When the iodides are stopped, reversal of the hypothyroid symptoms usually results, but if continued iodide administration is indicated thyroid extract may be given.

In the presence of iodide side effects, other expectorants may be employed. Glyceryl guaiacolate in 100 mg. dosage has been helpful and is available commercially (Robitussin®). Syrup of ammonium chloride and syrup of ipecac (15 minims) have been used for many years and may be tried.

Antibiotics and Chemotherapeutic Agents

There is little doubt that infectious factors play an important role either as the primary etiologic trigger (bacterial allergy) or as a perpetuating factor in many patients with vasomotor rhinitis, asthma, and atopic dermatitis. The selection of the antibiotic or chemotherapeutic agent is an individual patient problem. The choice of the antibiotic should be determined on the basis of the bacterial sensitivity study of the asthmatic patient's sputum. However, the use of the broad-spectrum drug may be desirable in the absence of a sensitivity study. In our opinion there is certain inherent risk in the use of penicillin in allergic people because of the danger of the anaphalactoid or delayed type of serum reactions. This opinion is based on an increased incidence of these reactions in allergic patients.[17]

Intermittent versus continuous antibiotic therapy remains a therapeutic dilemma in the asthmatic patient with recurrent infections and continuous symptoms. In general, we feel that a seven-day course of intensive antibiotic therapy for each infection is the treatment of choice, although a few children have appeared to do better on continuous therapy carried out through the winter months. However, a recent study[8] would imply that long-term antibiotics help the majority of children and adults with infectious asthma. In view of the fact that long-term oral antibiotic therapy may cause gastrointestinal complications, the triple sulfonomides, if tolerated at all, may be used with less risk of changing the intestinal flora and causing complications.

Certain risks appear to be inherent in this method of treatment, such as, further infection due to the growth of a resistant strain, the superimposition of infection from a normally non-pathogenic organism, or to a pulmonary fungus infection.

Antihistamines

In our opinion, the antihistamines are of little or no value in the therapeusis of asthma. They certainly will not relieve an acute attack and because of the atropine-like action inherent in the group of compounds are contraindicated in many instances. They cause thickening of the bronchial secretions and promote the production of bronchial plugs. There are instances, however, in which antihistamines may be of therapeutic value, such as the pollen-sensitive or mold-sensitive hay fever asthmatic patient. In this instance, the antihistamines may be used for relief of the hay fever symptoms.

Acetyl Salicylic Acid

In spite of the fact that aspirin frequently causes asthmatic symptoms (especially in the patient with allergic disturbances and the most frequently associated factor in nasal polyposis), it is occasionally a very effective therapeutic agent. We have observed five patients that are completely free of asthma while taking aspirin. This drug also gives striking results in relieving the symptoms of nasal stuffiness in patients with vasomotor rhinitis.

Oxygen

Oxygen is a very potent antitussic agent and when administered continuously in the presence of bronchial obstruction can produce pulmonary acidosis with resulting carbon dioxide narcosis and even death.[3] For these reasons we believe oxygen should be used in asthma only in the presence of a high degree of cyanosis and even then its administration should be interrupted rather than continuous. In the latter instance, the oxygen should not be chilled but should be used at room temperature.

Hydration

An important principle in the management of asthmatic patients, which is frequently overlooked, particularly with those suffering "status asthmaticus," is the relationship to water balance. An adult may develop a fluid deficit of 1500-2000 cc. of fluid per day due to hyperventilation, excessive perspiration and urinary excretion during a moderately severe asthmatic attack.[14] Children may become dehydrated even more rapidly than adults. Unless hydration is maintained, the sputum thickens and becomes tenacious. Thus the effect of the expectorants and bronchodilaters is inhibited. Usually the patient must be reminded to take fluids since the simple act of swallowing interferes with the respiratory cycle and increases dyspnea. Warm, nourishing liquids are recommended rather than cold or solid food. Intravenous fluid replacement will be necessary if the oral intake is inadequate. Glucose (5 per cent) in distilled water is an excellent means of replacement, although excessive electrolyte loss may occur from excessive perspira-

tion. Such loss must be measured by blood electrolyte determinations.

Sedation

In general, sedatives are indicated only to allay apprehension or as a means to avoid excessive pressor effects of the sympathomimetic amines. Barbiturates, especially sodium pentobarbital, are our choice. However, one must be sure that sensitization to these compounds does not exist. Chloral hydrate 0.5 gm. every four hours during the day and 2 gm. at bedtime is very effective. One need not fear sensitivity to this drug since it has a very low index of sensitizing ability. We have never observed an allergic reaction to this compound.

Gamma Globulin

Gamma globulin injections have been reported to reduce the frequency of upper respiratory infections and their complications. However, a recent double-blind, controlled study on twenty-two asthmatic children revealed the same number of infections per child in the two groups, and these compared in a similar way with the general population.[1] One of us has recently followed a youngster, aged three-and-one-half years with hypogamma globinemia, who has had dramatic relief of his asthma with the use of 2 cc. of gamma globulin intramuscularly every three weeks. Should the interval between doses be prolonged beyond the three-week period, asthma promptly returns and remains until the gamma globulin is repeated.

Adenovirus Vaccine

Respiratory infections are important as a primary trigger or a contributory cause of symptoms in a significant number of asthmatic patients. The cause may well be related to secondary invaders rather than a viral infection; nevertheless, the primary invasion triggers the chain of events. It would therefore seem logical that any agent which would give resistance to infection by raising the antibody titre against that organism might be a valuable therapeutic agent. During the past eighteen months we have administered a six-strain adenovirus vaccine* to over 200 intrinsic asthmatic persons. Preliminary observations would suggest that this vaccine has been of value in about 50 per cent of the cases. Dees[7] reports a similar experience; however, much longer observations over a much longer period of time and a very critical evaluation of the patients must occur before a final evaluation of its therapeutic usefulness will be known. Three-strain adenovirus vaccines have been available commercially, and undoubtedly more such vaccines can be expected in the near future.

Corticotropin (ACTH) and Corticosteroids

The decision as to when to use or not to use ACTH or steroids in an asthmatic is very difficult since one cannot dismiss the problem with a categorical approval or denial. Certainly these compounds exert a tremendously favorable effect in symptomatic control. However, their mechanism of action in all allergic disorders appears to be anti-inflammatory in nature and the basic pathologic problem remains unchanged. The physiologic action still is symptomatic and does not lessen the need for proper specific therapy, nor should it supplant other symptomatic therapy. In reality, their use actually increases the responsibility of the physician to evaluate adequately and carefully the entire allergic problem and the probability of mortality and morbidity in each and every case.

When all of the armamentarium enumerated has been utilized to the fullest and the patient has been hospitalized to remove him from his environmental and food allergens without resulting symptomatic control, one may be justified in instituting hormone therapy. Also, there may be rational reasons for their use in status asthmaticus.

If such patient has not received steroids within the previous six months, our choice would be ACTH, since its administration is least likely to commit the patient to prolonged therapy; and since the pituitary is more likely to respond to the "alarm reaction" after discontinuance of ACTH than is the adrenal to the withdrawal of corticosteroids. Continuous intravenous ACTH (10 to 20 units in 1000 cc. of 5 per cent glucose in distilled water by slow drip) will usually bring about improvement within a few hours, but complete relief of status asthmaticus usually requires several days of therapy. The addition of aminophylline 0.5 gm. to the glucose-ACTH mixture will often hasten recovery.

Continuous intravenous administration over the necessary several days' time results in much discomfort to the patient. We, therefore, agree with Hampton's[9] suggestion of intravenous ACTH over eight hours to twelve hours per day and a booster dose of ACTH gel at night. Patients with moderately severe asthma will respond well to 60 units

---

The adenovirus vaccine used in this study was generously supplied by Parke, Davis and Company.

of ACTH gel every twelve hours. This dosage should be continued until all subjective and objective evidences of asthma have disappeared, and then the medication may be withdrawn by daily increments of 20 units in a step-like way until it is discontinued.

In acute status asthmaticus of a patient who has received steroids within the preceding six months, our choice would be intravenous hydrocortisone, giving 200 mg. the first twenty-four hours in a slow continuous drip. Usually improvement starts within four to six hours so that the second and subsequent days require 100 mg. or less of hydrocortisone. As improvement continues, the patient may be transferred to oral steroids. Intravenous Prednisone also is dramatic in relieving acute "status" in many instances. It is to be remembered, however, that Prednisone, like the other members of the newer steroid family, is not a complete adrenal steroid replacement and will not be an answer to the problem in certain cases. It is probable that these patients have a relative adrenalin insufficiency on maintenance dosage of the newer compounds and suddenly develop increased symptoms unrelieved by appreciably increasing the steroid dosage. It is quite frequently observed that, following a short course of ACTH, these same patients will again be controlled by the former dosage of steroids.

In 1955 we reported on a series of thirty-six chronic asthmatic patients receiving Prednisone.[15] Twenty-one of these patients were given Triamcinolone (Aristocort®).* They had all been on steroid therapy for an average of twenty-three months prior to starting Triamcinolone. The average duration of asthma was sixteen years, with emphysema being present in fourteen patients. The average daily dosage of Aristocort® was 5.6 mg. as compared to 10.6 mg. of Prednisone. In both instances the dosage was just sufficient to keep the patients relatively comfortable but not necessarily asthma-free. In addition to the steroid, oral bronchodilator drugs and expectorants were usually given continuously. The majority of patients showed intrinsic factors in etiology, although four were known to be aspirin-sensitive and ten had extrinsic factors, such as dust and pollen, as well as an infections problem. Members of the group have now been on Triamcinolone for a period of six months to twelve months. Their acute asthmatic attacks have been relieved but all have continued to require the steroids. Those who have developed an acute respiratory infection have required, temporarily, an increased daily dosage. It is interesting to note that rapid weight loss presumably related to water elimination occurred in four instances, while weight gain was observed in two; of the five patients showing marked "moon facies," four remained unchanged and one had a striking regression after being placed on Aristocort. Hypokalemia and weakness appeared as a new symptom in one case and marked leg and thigh weakness appeared in another. The latter symptom persisted for over three weeks after changing over to Medral. Two patients developed severe abdominal cramping pain requiring cessation of the steroid. It should be emphasized that some of the patients have done much better on Aristocort® than on Prednisone. From a much smaller experience with Medrol® and the newest of the group, Decadron®, the same may be said. It would seem, then, that the choice of steroids once the patient is committed, is an individual variable and that one patient will do better on one of the compounds, while the next patient will do better on still another of the group.

The increased death rate from asthma in the United States—a jump from 2521 per 100,000 population in 1945 to 5960 in 1955—is some cause for concern. Hiddlestone[10] reports very similar statistics for New Zealand and Kern's[12] observation that this has appeared at all age groups, but with a marked increase in mortality after the age of forty years, certainly places the onus upon the steroids. Furthermore, the increased death rate would raise the question of infections. It is well known that steroids increase the susceptibility to infections and in this group of patients bacterial allergy and bacterial infections play a prominent role. In addition to infections, the development of severe osteoporesis in asthmatic patients on prolonged steroid administration commonly occurs.[11] The spine and rib fractures with resultant pain and incapacity offer further therapeutic problems. Although peptic ulcer rarely occurs in asthma alone, it is frequently seen in association with pulmonary emphysema. Since a high percentage of the patients we see have a high degree of pulmonary emphysema, the frequency with which we are confronted with acute epigastric discomfort, gastric hemorrhage and perforation in patients

*Aristocort used in this study was generously supplied by Lederle Division of the American Cyanamid Company.

on steroids is quite understandable. Even though the more recent compounds do not have as great an effect upon salt and water retention and potassium depletion as the older drugs, at least 25 per cent of patients upon prolonged steroid therapy require therapeusis directed to correct these abnormalities. The anti-insulin action and the acceleration of gluconeogenesis produced by the steroids frequently cause elevated blood sugars and transient diabetes-like pictures. These compounds also will bring out true latent diabetes mellitus which must be watched for. Definite personality changes occur in patients treated with steroids. Elation, depression and wide mood swings appear to be common changes frequently observed. Recent studies[6] have also shown that growth arrest may occur in children on chronic steroid therapy.

With our present imperfect understanding of all the physiologic actions of these potent medications, it is wise for the physician to realize that he must be willing to accept the fact that the patient is more often than not being committed to long-term steroid therapy once these drugs are given. He must be prepared to follow carefully such a patient and treat the almost inevitable complications.

Summary

The long-range management of asthma revolves around pointing out each and all of the trigger substances and then eliminating these causes, or immunizing against them if they cannot be removed from the patient's environment.

The short-range therapy is concerned with relief of the immediate attack. Adrenalin, aminophylline and iodides separately or in combination are still excellent tools and when correctly and judiciously used will relieve the vast majority of acute paroxysms.

A number of newer compounds have been discussed and their relative value enumerated. A word of caution in instituting steroid therapy has been given and the multiplicity of side reactions from these drugs has been pointed out.

References

1. Abernathy, R. S., Strem, E. L., and Good, R. A.: Gamma globulin treatment of asthma: A double-Blind controlled study. Paper presented at 14th Annual Meeting, Am. Acad. Allergy, Feb., 1958.
2. Alexander, H. L.: Reactions with Drug Therapy. P. 186. Philadelphia: W. B. Saunders Co., 1955.
3. Barach, A. L.: The treatment of anoxema in clinical medicine. Bull. New York Acad. Med., 26:370-383, 1950.
4. Beale, H. D., Fowler, W. S., and Comroe, J. H.: Pulmonary function in twenty asthmatic patients in a symptom-free interval. J. Allergy, 23:1-10, 1952.
5. Bell, G. O.: Prolonged administration of iodine in the pathogenesis of simple goitre and myxedema. Tr. Am. Goitre Assoc., (1952), pp. 28-37, 1953.
6. Blodgett, F. M., Burgin, L., Iezzoni, D., Gribetz, D., and Talbot, N. B.: Effects of prolonged cortisone therapy on the structural growth, and metabolic status of children. New England J. Med., 254:636-641, 1956.
7. Dees, S.: Personal communication.
8. Frinke, W.: Long-term antibiotic therapy in chronic bronchitis and infectious asthma. Control and prevention of bronchopulmonary disease. Antibiotics and Chemother., 4:319-329, 1954.
9. Hampton, S. F.: Status asthmaticus. Treatment with special reference to the clinical use of corticotrophin (ACTH) intravenously and by intramuscular gel; Prednisone, and Prednisolone; and intermittent, positive pressure breathing. Missouri Med., 54:229-233, 1957.
10. Hiddlestone, H. J. H.: The importance of asthma in New Zealand. New Zealand M. J., 55:395-398, 1956.
11. Irwin, J. W., Henneman, P. H., Wange, D. M. F., and Burrage, W. S.: Maintenance cortisone in intractable asthma. J. Allergy, 25:201-209, 1954.
12. Kern, R. A.: The use and abuse of steroid therapy, notably in allergic disorders. Am. J. Med. Sc., 233:430-447, 1957.
13. Morgan, M. E., and Trotter, W. R.: Myxedema attributed to iodine administration. Lancet, 2:1335-1337, 1953.
14. Sheldon, J. M., Howes, H., and Stuart, G.: Observations on total water and sodium exchange in asthmatic patients. J. Allergy, 11:1-13, 1939.
15. Sheldon, J. M., McLean, J. A., and Mathews, K. P.: Experience with metacortandracin (Meticorten) in severe bronchial asthma. J. Michigan M. Soc., 54:1081-1083, 1955.
16. Soifer, Hyman, M.D.: Aminophylline toxicity. J. Ped., 50:657-669 (June) 1957.
17. Welch, H., Lewis, C. N., Weinstein, H. I., and Boeckman, B. B.: Severe reactions to antibiotics. A nationwide survey. *In* Antibiotic Annual 1957-58. New York: Medical Encyclopedia, Inc., 1958.

CANCER IN CHILDHOOD

Cancer is much more common in childhood than is generally realized. It takes a greater number of lives among children five to fourteen years of age in the United States than any other disease, accounting for one out of every four deaths from disease at these ages . . . . Currently, about 4,000 cancer deaths occur annually at the ages under fifteen, or nearly 50 per cent more than a decade ago.—*Statistical Bulletin,* Metropolitan Life Insurance Co., December, 1958.

The Recognition and Correction of Water and Salt Deficits in Surgical Patients

By Robert E. L. Berry, M.D.
Ann Arbor, Michigan

THE growing number of books and papers on the subject of "Fluid and Electrolyte Balance" has achieved a quantity that would provide an avid student an almost unlimited field for study for an almost unlimited period of time. The resultant plethora of polysyllabic words such as milliosmols, renal tubular transport mechanisms, and so forth, may achieve little but to offer communication between students of these subjects. Only too often, however, they leave the work-a-day surgeon, faced with the practical fluid problems encountered in a busy practice, not only confused but discouraged with attempts to decipher and translate these writings into the clinical care of his patients. Further confusion easily arises because the use of parenteral fluids remains an inexact science. Attempts to compensate for inexactitude may well result in dogma and standardization that prove to be therapeutically ineffective and potentially dangerous.

Although having not achieved perfection in parenteral fluid therapy, it is reasonable to suggest that at least a state of knowledge has been reached in which *minimal harm* should result from its intelligent use. The following is therefore being offered as a reasonably simple and yet comprehensively effective approach to the parenteral use of water, carbohydrate, sodium, chloride and potassium in the management of water and salt deficits in the injured or operated patient. These methods have been found to be clinically workable but hardly should they be considered to possess finality or perfection.

Recognition of Water Deficits

During health, the *urine volume* and *urine specific gravity* are the two most important indices of the adequacy of water intake. They tend to be reciprocals of each other; that is, low urine volume is accompanied by a high specific gravity and vice versa. In the injured or operated patient, however, the urine volumes and specific gravity, when being used to determine the adequacy of water intake, require careful interpretation.

The Urine Volume.—In health, the urine volume is determined by the amount of "excess water" demanding excretion after mandatory insensible loss (water vaporized by the skin and lungs), loss by sweating and fecal loss have been met. The urine volume is therefore highly variable depending upon the amount of water available from food and drink and the magnitude of mandatory loss.

What, then, is an adequate urine volume? An average adult excretes about 35 gm. of waste products per day of which the principal part results from protein metabolism. At least 15 milliliters (cc.) of water are required to dissolve each gram thus requiring about 500 ml. of urine to insure complete clearance. This, however, would require a urine specific gravity of 1.035, a concentration rarely observed in humans unless severe water deficit has been present for a period of time. Experience has demonstrated that a twenty-four-hour urine volume of 1000-1200 ml. will provide adequate metabolic waste clearance without excessive demand necessitated by the elaboration of a highly concentrated urine by the kidney.

As will be demonstrated, the "normal" volume concept is not always applicable following serious trauma or operations of considerable magnitude. Oliguria can be present in varying degrees and its duration and significance must be carefully interpreted.

Urine Specific Gravity.—The specific gravity of a substance is its weight compared with an equal volume of another substance which is a standard. For urine, the standard is distilled water. In health,

Presented in part at the postgraduate courses of the Chicago Medical Society and Cook County Medical Society, November 6, 1958.
Supported by Grant No. 117 of the Michigan Memorial Phoenix Project.

the specific gravity of the urine depends principally upon the intake of water. A large water intake will result in a large urine volume with low urine specific gravity; conversely, a low intake

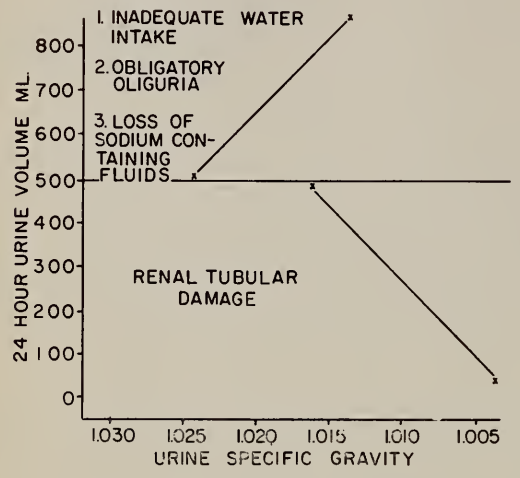


Fig. 1. Schematic representation of urine volume and specific gravity ratios in post-operative or post-traumatic oliguric states. Oliguria due to inadequate water intake, obligatory oliguria or loss of sodium containing body fluids continues to possess a reciprocal relationship between specific gravity and volume. Organic renal tubular damage, on the other hand, tends to have a direct relationship between volume and specific gravity, i.e., the smaller the volume the lower the specific gravity. Caution is necessary in the interpretation of specific gravity of urine as excessive content of protein, non-protein nitrogen and glucose obscure the true renal tubular concentrating ability.

will result in a low output of high specific gravity. This is chiefly attributable to the activity of the antidiuretic hormone secreted in response to minute changes in the sodium salt concentration of the plasma.[7]

In general, this reciprocal relationship of urine volume and specific gravity holds for the operated or injured patient. The specific gravity of the urine is a *rough but clinically useful index* of renal tubular function and can be of importance in differentiating oliguria produced by kidney damage from that due to other cases (Fig. 1).

Because increased postoperative nitrogen excretion, spillage of carbohydrate and proteinuria produce false high specific gravities of urine, their relative contribution should be assayed if maximum accuracy is to be obtained. Protein may be removed by flash boiling but excessive carbohydrate spillage and increased non-protein nitrogen in the urine cannot be so easily estimated. Marked carbohydrate spillage will require examination of a subsequent specimen free of sugar. Osmotic activity of the urine may also be determined by freezing point depression. Small urine volumes should demonstrate high osmotic activity if renal tubular function is satisfactory and low osmotic activity if renal damage is the cause of oliguria. This procedure, however, is not yet practical for the majority of hospitals.

Differential Diagnosis of Post-Traumatic (Operative) Oligurias

For the purpose of discussion let it be assumed that accurately measured twenty-four-hour urine volume under 800 ml. will be defined as an oliguria. The following questions should then be asked:

1. Is this due to an inadequate intake of water?

2. Does this represent the *obligatory oliguria* often observed following severe trauma or big operation?

3. Has there been a significant loss of salt containing fluids into body tissues (internal) or from the body (external)?

4. Does this represent organic kidney tubule damage due, for example, to hypotension, anoxia or incompatible blood transfusions?

5. Has there been damage to post renal structures (ureter, bladder or urethra)?

1. *Inadequate Water Intake.*—For the great majority of operations and following severe trauma, the early administration of large amounts of water in a carbohydrate solution is undesirable. In the average sized adult this amount should rarely exceed 1500 ml. during the first twenty-four-hours because of the unpredictability of renal response and the potential obligatory oliguria effect discussed below. High environmental temperatures and fever, however, sharply increase insensible loss of body water (vaporization from the skin and lung) and sweating. If the administration of water has been limited to 1500 ml. on the day of operation, it is not unusual for the accompanying urine output to vary between 500-800 ml. during the same twenty-four hours. No harm attends this temporary oliguria as patients have been kept almost completely without water for the first seventy-two postoperative hours without observed deleterious effects.[1] Keeping a patient on the "dry side" is a proven and safe procedure. The routine administration of 3000 ml. of water on the day of

operation is an invitation to trouble and has nothing to recommend it provided that large extra-renal loss of fluid is not simultaneously occurring.

Urine volumes of 500-800 ml. per twenty-four hours, resulting from the planned withholding of water or an inadvertent unplanned water deficit, have *high specific gravities* that measure at least 1.020 and often much higher (Fig. 1). Thirst is a common symptom.

2. *Obligatory Oliguria.*—Oliguria results from activation of powerful hormones by injury or operation. The pituitary gland triggers this response by increased secretion of anti-diuretic hormone from the posterior lobe and adrenocorticotrophic hormone from the anterior lobe. Other unidentified anti-diuretic factors also probably enter into this response. The anti-diuretic hormone acts upon the distal kidney tubule to increase the absorption of water; augmented secretion of salt retaining hormones from the adrenal gland possibly increases absorption of glomerular filtrate from the proximal tubule. Of these, it is believed that aldosterone is the most potent. The net result is a diminution of urine output. Although this effect may not significantly last for more than twenty-four hours, it can profoundly affect urine volume. It is difficult to separate obligatory oliguria from that produced by inadequate water intake as both are accompanied by outputs ranging from 500-800 ml. per twenty-four hours with *high specific gravities* (1.018-1.030).

3. *The Loss or Sequestration of Extracellular Fluid.*—These oligurias are due to a primary sodium salt deficit and subsequently will be discussed with that subject.

4. *Organic Damage to the Kidney (Lower or Universal Nephron Syndrome).*—All degrees of organic damage to the renal nephron may be produced by anoxia, hypotension, incompatible blood transfusions and hemodynamic variations in the blood supply of the kidneys. The initial twenty-four-hour urine volume may vary from 500 ml. to almost complete anuria and the duration of the oliguric period vary from one to twenty-one days. Any urine volume under 500 ml. should be considered evidence of such damage until proven otherwise. It is almost a certainty that volumes less than 100 ml. are pathognomonic of serious organic tubular change.

The importance of differentiating this type of oliguria from that of inadequate water intake or obligatory oliguria cannot be over-emphasized as renal damage necessitates *limitation or withholding* of fluids until renal recovery occurs. The oliguria produced by renal damage invariably has a *low specific gravity* (1.001-1.010) as the damaged tubule is incapable of producing a concentrated urine (Fig. 1).

There is a group of oligurias that apparently result from minimal to moderately acute organic tubular change or unanticipated previously-existing renal disease and are characterized by twenty-four-hour volumes of 300-500 ml. with specific gravities from 1.010-1.015. These usually last from one to five days followed by rapid recovery. Fluid administration should be limited during this period. Previously existing permanent kidney disease also requires cautious administration of parenteral fluids if over-hydration is to be prevented.

5. *Post-Renal Trauma.*—This is not a fluid problem. Treatment consists of the surgical correction of the underlying pathology.

The Treatment of Water Deficits

It would be over-simplification to state that the treatment of water deficits is the parenteral administration of more water. *The principal consideration is that the true nature of a low twenty-four-hour urine volume be accurately identified.*

Oligurias due to inadequate administration of water should be corrected gently and not by "forcing" large amounts of water and carbohydrate solution. For most cases the parenteral infusion of 2000-2500 ml. of water during the subsequent twenty-four hours will suffice. The most serious mistakes will be made by overhydration. The kind of carbohydrate is of no importance. Glucose, levulose or a combination of both are equally effective. For short term therapy the concentration of carbohydrate is of little practical importance. Solutions containing 10 per cent sugar provide twice as many calories. On the other hand, 10 per cent solutions are too often accompanied by widespread thrombosis of peripheral veins and a higher incidence of glycosuria. Tolerance for 10 per cent solutions is variable and urine checks for glycosuria are necessary to prevent glucose osmotic diuresis. Obligatory oliguria is rapidly self correctable. Management consists of limita-

tion of infused water during the initial twenty-four hours.

At the end of twenty-four hours following operation or injury, two serious mistakes can be made in the interpretation of low urine output:

1. Failure to recognize that the kidney cannot excrete water because organic tubular damage has occurred.

2. Failure to recognize that clinically significant amount of salt containing fluids have been lost externally and/or internally into the body tissues.

Renal Damage.—The damaged kidney cannot efficiently excrete water. Attempts to "stimulate" urine production by the administration of large amounts of parenteral water is not only fallacious but extremely dangerous. In questionable cases, particularly if the specific gravity has been of little help in the differential diagnosis, a test of water should be given. This is done by infusing 1000 ml. of 5 per cent glucose in water at a fairly rapid rate (500 ml. per hour). A sharp increase in urine flow will accompany this infusion if the kidneys are intact. If they are not, the urine flow will not increase, and this is *all of the fluid* that should be given for that twenty-four-hour period. Marginal volumes of 400-600 ml. per twenty-four hours, with specific gravities from 1.010-1.020, should be given only 1000-1500 ml. of water until such time as adequate renal function becomes apparent. Profound oligurias (less than 100 ml. per twenty-four hours) are diagnostic of severe kidney damage. It is not within the province of this paper to discuss the treatment of severe universal nephron syndrome. The reader is referred to the many excellent treatises on this subject.

Extracellular Fluid Loss.—Oliguria accompanying significant loss of extracellular fluids is related to sodium salt loss and diminished glomerular filtration. This will be discussed with recognition of sodium salt deficits.

The Recognition of Sodium Salt Deficits

It is essential to emphasize that the need for water and sodium salts is never the same. Man can live but a short while without water yet he may live for a considerable period of time without sodium salts. As further evidence, certain diseases of the cardiovascular system are treated with an intake of less than 1 gm. of sodium per day without apparent deleterious effects. The routine administration of "normal" saline or any 0.9 per cent sodium salt solution as a source of free water is a pernicious practice which affords no benefit and potentially is hazardous. Unless significant loss of body fluids has occurred from external or internal causes *there is little need for the administration of sodium salts during the first twenty-four postoperative hours.* Hypotonic sodium salt solutions containing 0.2 to 0.3 per cent NaCl have achieved considerable usage during the past several years. This amount of sodium, in most cases, is safe in solutions being administered principally as a source of free water.

A significant need for sodium salt solutions exists after many kinds of serious trauma such as burns. Adequate replacement is an essential part of the therapeutic program.

There are three chief types of sodium salt deficit states that for practical purposes are comprehensive:

1. A contraction of the volume of extracellular fluid without change in the concentration of sodium, that is, the chemical estimation of sodium in the serum is normal. This is called *isotonic* or *iso-osmolar* sodium deficit.

2. A lowering of the serum sodium concentration. To be symptomatic in acute cases, the serum will usually be less than 130 milli-equivalents (mEq.) per liter. This is called *hypotonic* or *hypo-osmolar* sodium salt deficit and may or may not be accompanied by contraction of the extracellular volume (Figs. 3 and 4).

3. Disturbances in acid-base balance. These may be accompanied by a loss of extracellular fluid volume, tonicity or a combination of both.

1. *Isotonic (Volumetric) Sodium Salt Deficit.*—This is "normal chemistry sodium salt deficit." There has been a depletion of total body sodium but the chemical measurement in serum is normal (Fig. 2). If this condition cannot be diagnosed by determination of serum sodium and chloride, how then can it be identified? For the most part this is a *Clinical* diagnosis. A diminution of the extracellular fluid volume activates volume receptors probably located in the great vessels, the heart and the central nervous system.[6] These, in turn, produce peripheral vasoconstriction which can be an important key to the status of volume of extracellular fluid. Early signs and symptoms

are principally related to a shrinkage of the plasma volume; as the desalting process continues, signs of interstitial loss will become apparent. Although not 100 per cent reliable, the following signs and symptoms are of great value in estimating the status of the extracellular fluid volume:

Small Deficits of Extracellular Fluid (1000–2000 ml.).

Central Nervous System: apathy, depression of emotional tone, weakness.

Cardiovascular System: coolness of extremities, slight cyanosis of the nail beds, sluggish capillary filling, poor filling of veins on the dorsum of the hand, slight increase in pulse rate.

Skin: no changes early but after a day or two there is loss of turgor and volume.

Facies: no change early but as the plasma volume shrinks the malar eminences have heightened coloring due to concentration of the red blood cell mass producing relative greater hemoglobin concentration. This gives rise to the syndrome of "polycythemic dehydrational flush."[4]

Body Temperature: low due to diminished energy output. Fever if present, is due to accompanying inflammatory disease.

Eyes: diminished ocular tension may be present as well as slight recession of the globes into their sockets.

Urine Output: oliguria with tendency for fixation of the specific gravity at about 1.016-1.018. This is due principally to diminished glomerular filtration.

Blood Chemistries: early, the only finding may be an increase in blood urea nitrogen and slight increase in hemoglobin and hematocrit.

Moderate Deficits of Extracellular Fluid (2000-4000 ml.)

In addition to the above:

Cardiovascular System: marked diminution or absent venous filling of the veins on the dorsum of the hand, mild cyanosis changing to pallor; increased capillary mottling particularly in dependent areas. Increasing pulse rate, progressive diminution of the pulse volume; orthostatic hypotension (fainting upon assuming the erect position).

Urine Output: marked oliguria with specific gravities often fixed 1.016-1.018.

Large Deficits of Extracellular Fluid (4000-6000 ml.)

Central Nervous System: patient can be conscious, well oriented.

Cardiovascular System: blood pressure falling to "shock levels" while reclining; rapid pulse, diminishing pulse volume. This may go on to absent radial pulse, absent brachial artery blood pressure and yet the patient remains conscious.

Facies: marked malar flushing particularly if the loss has occurred rapidly.

Blood Chemistries: The picture is often as follows:

sodium	136-140	mEq./l.
chloride	96-100	mEq./l.
potassium	5-6	mEq./l.
CO_2	25-27	mEq./l.
BUN	30-60	mg. per cent
hematocrit	50-60	per cent
hemoglobin	15-19	gm.

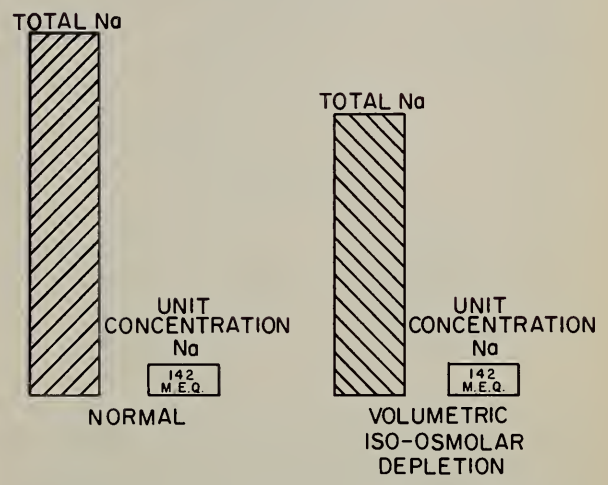


Fig. 2. Isotonic contraction of the extracellular fluid volume. The relatively rapid loss of plasma water and salt in approximate ratio to that found in plasma results in a depletion of total body sodium but the unit concentration as measured in milliequivalents per milliliter of serum remains normal. A patient may therefore be seriously depleted of sodium and yet the blood chemistries will be normal.

Serum potassium may be somewhat elevated. Although cause of this phenomenon is not clearly understood it probably represents a transfer of cell water and potassium into the extracellular fluid. The blood urea nitrogen rises early and often to a surprisingly high level. Hematocrit and hemoglobin levels reflect contraction of the plasma volume. If there has been hemorrhage or severe anemia then abnormally low hematocrits and hemoglobins will appear *falsely normal,* as the degree of anemia becomes apparent only after rehydration has occurred.

2. *Hypotonic (Hypo-osmolar) Sodium Salt Deficits.*—These are the three principal types:

Dilutional: The total body sodium is normal but the ability to excrete parenterally-administered water is impaired or the amount given is excessive (Fig. 3). Examples: (a) convulsions in children with megacolon during attempts to evacuate the colon with repeated tap water enemas, (b)

over-administration of glucose and water solutions following severe trauma or operation during the period in which renal tolerance to large loads of water is decreased. For the most part, this condition is best handled by the simple withholding of

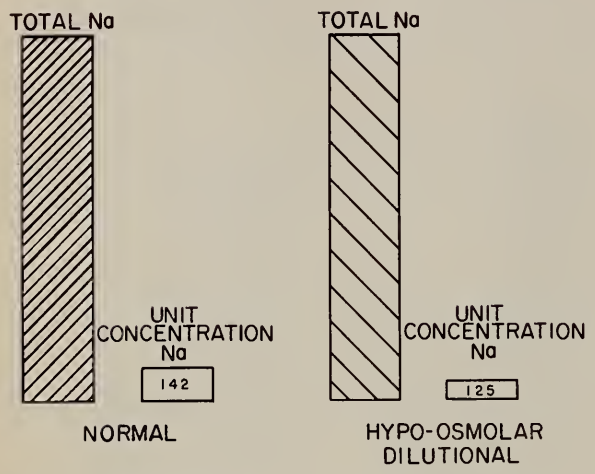


Fig. 3. Lowered serum sodium concentration hypo-osmolarity) produced by water retention. The total body sodium is normal but renal capacity to excrete administered water has been impaired with resultant dilution of the plasma sodium. This leads to the picture of true "water intoxication." Treatment principally consists of withholding of fluids and permitting internal adjustment to correct hypo-osmolarity. The administration of hypertonic salt solutions may be extremely hazardous.

water for a twenty-four to forty-eight-hour period. In the presence of signs and symptoms of severe brain irritation, however, (see later) hypertonic sodium solutions may be necessary but should be given cautiously as a real danger exists for over-expanding the extracellular fluid volume (Fig. 5).

Relative Water Excess: The total body sodium is low because of gradual uncompensated loss over a period of one to five days. Continued administration of excess sodium-free water results in gradual retention of water with resultant lowering of the serum sodium. The entire mechanism by which water is retained and osmolarity sacrificed is not entirely clear. Extracellular fluid volume receptors and diminished glomerular filtration rates have both been suggested as etiologic components.[5,6] This is the most common type of hyponatremia seen in surgical patients who have been on parenteral fluid for several days. Certainly all cases of this type do not need aggressive treatment with hypertonic sodium salt solutions. If signs and symptoms of central nervous system irritation are present, however, correction should be accomplished promptly with the appropriate hypertonic sodium solution (Figs. 4 and 5). Otherwise Ringer's or Hartmann's solution administration is efficient treatment provided that the degree of hypotonicity is not great and the patient is not symptomatic.

Chronic Hypotonicity Syndrome: Following periods of enforced bed rest, particularly if accompanied by a chronic loss of intestinal fluids such as might occur in chronic intestinal obstruction or low small bowel fistula, a general lowering of the tonicity of all body fluids may occur. Principally related to diminished energy output after weeks of semi-starvation, this type of hyponatremia is refractory to the usual sodium salt replacement as serum concentrations remain "low" or return to previously observed low levels even after the administration of hypertonic solutions. Time should not be wasted in fruitless efforts to restore "normal" chemistries through parenteral water and salt. Treatment should be directed at the operative correction of pathology that prevents the normal intake of all the essential elements of nutrition.

Symptoms resulting from lowered tonicity of the extracellular fluid are due to increased water content in the cells. A lowering of the osmotic pressure of serum is followed by intracellular edema. Because of the central nervous system is most sensitive to increase cell water content, clinical symptoms are usually initiated by irritative phenomena of the brain.

Symptoms Which May Result from Lowered Serum Sodium

Central Nervous System: mild disorientation that may progress to complete lack of contact with environment; restlessness progressing to maniacal conduct; muscle twitchings; convulsions, particularly in children.

Gastrointestinal: attempts at getting rid of excess water by vomiting or diarrhea.

Cardiovascular: signs of volumetric depletion may or may not be present. Pulmonary edema may result from over hydration from attempts to "stimulate" formation of urine.

Skin: persistent "fingerprinting" of the skin when pressure is made by the volar surface of the thumb on the skin of the sternum; several days of depletion may be necessary to produce this sign.

Urine Out-put: marked oliguria that may progress to almost total anuria.

Blood Chemistries: serum sodium low; increase of blood urea nitrogen.

Acid-Base Balance

The symptoms accompanying disturbances in acid-base equilibrium are essentially those related to the nature and magnitude of the deficit of sodium salts. Correction is an integral part of the treatment of the attendant sodium deficit. The classically described respiratory signs of "acidosis" and "alkalosis" are not commonly observed in the sick surgical patient. Disturbance in acid-base are therefore best diagnosed by determination of the CO_2 combining power and serum pH as the great majority of these problems are metabolic in nature.

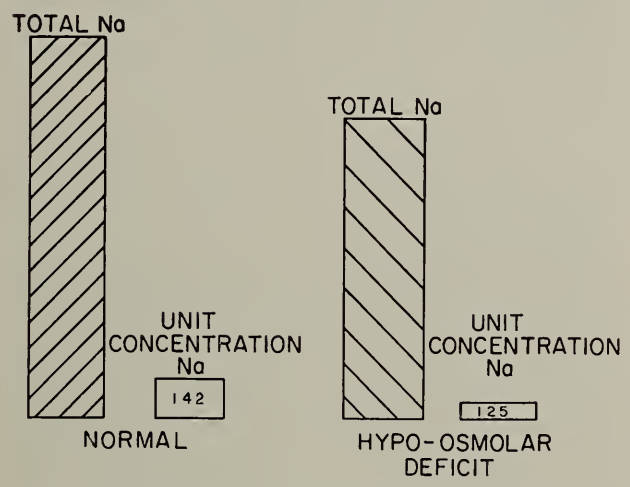


Fig. 4. Hypo-osmolar sodium deficit with lowered total body sodium. This is the most frequent type of sodium deficit seen in surgical patients particularly if inadequate sodium salt repletion has occurred over a period of two to five days. Aggressive treatment with hypertonic sodium salts is not necessary unless the patient is symptomatic. (See text.)

Reduced to a simple form, acidosis will follow the loss of body fluids containing relatively more sodium than chloride and during periods of starvation and uremia. Alkalosis will follow the loss of body fluids containing relatively more chloride than sodium and with marked potassium depletion.

Sodium lactate is a practical and easily stored salt that can be used to treat conditions of acidosis. It should not be used when severe hypotension is present as the lactate radical may be inefficiently metabolized by the liver during "shock." The use of sodium bicarbonate is recommended under these circumstances.

Ringer's solutions is recommended for the management of alkalosis because it contains about 50 per cent "excess" chloride ions when compared to the ratio of sodium and chloride in extracellular fluid. Rarely is there any indication for the use of ammonium chloride solutions in the management of alkalosis.

Correction of disturbances in acid-base balance should be an integral part of correction of sodium salt deficits and is achieved simultaneously during the correction of volumetric of hypo-osmolar deficits.

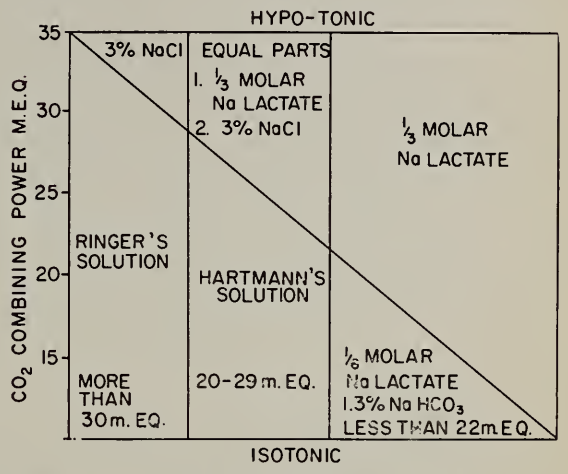


Fig. 5. Treatment of sodium salt deficits attended by disturbances of the CO_2 combining power and serum pH. Management of symptomatic hypotonic deficits is shown in the upper half and isotonic deficits in the lower. The type of hypertonic sodium salt solution used in hypotonic deficits varies from 3 per cent NaCl in marked alkalotic states to one-third molar sodium lactate in conditions of acidosis of comparable severity. For isotonic disturbances, solutions vary from Ringer's in alkalosis to the use of one-sixth molar sodium lactate for severe acidosis.

The Treatment of Sodium Salt Deficits

Isotonic (Iso-Osmolar or Volumetric) Deficits.—

1. Day-to-day external loss of sodium-containing fluids is best replaced with an equal volume of parenteral solution containing approximately the same ionic constituency. This is good theory but difficult practice. Externally measured loss does not necessarily reflect the *total amount* of extracellular fluid which has been rendered physiologically ineffective. Internal shifts of fluid produced by edema, pooling, inflammation and other abnormal sequestrations can be of greater magnitude than measured external loss. An abnormal "third" space size can thus be created large enough to produce "shock" despite little or no external loss. This type of sequestration is not reflected in the daily weight of the patient since the fluid has not been

lost from the body; as a result, the replacement of measured external loss, only, may be totally inadequate to cover the depleted extracellular fluid volume. Only by careful clinical evaluation of the patient's day-to-day progress can early unanticipated deficits be demonstrated. Furthermore, the daily determination of the ionic constituencies of externally lost fluid is costly and usually not necessary as reasonable estimations of the constituents are usually possible. Fluid lost from the stomach is high in chloride and should be replaced with Ringer's solution.* Other types of intestinal drainage and internal sequestrations are best replaced with Hartmann's solution,† because the ratio between Na and Cl resembles that of extracellular fluid. Both solutions should be reinforced with added potassium *after* an adequate urine flow has been obtained.

2. Vomiting, diarrhea, tube drainage from stomach or bowel, biliary or pancreatic drainage, intestinal fistulae, peritonitis, intestinal obstruction, burns and severe infections are important causes of uncompensated volumetric extracellular fluid deficits.

(a) If the CO_2 combining power is normal or not lower than 22 mEq./l. (normal 27 mEq.) or greater than 29 mEq., the solution of choice for repletion of large deficits is Hartmann's. The amount to be given should parallel roughly the attendant physical signs and symptoms. The most important signs that adequate repletion has been obtained are: return of warmth, color and venous filling to the extremities; and return of a good urine flow. Added potassium should *not* be given until the adequacy of the urine flow has been established. After re-hydration has been satisfactorily accomplished, the hemoglobin, red blood cell count and hematocrit should be checked to be sure that the loss of plasma volume was not obscuring an anemia (Fig. 5).

(b) If the CO_2 combining power is less than 22 mEq., initiate rehydration with 1000 ml. of a 1/6 molar sodium lactate provided that severe hypotension is not present. A solution of $NaHCO_3$ is preferable with severe "shock." The replacement program can then be continued with Hartmann's solution.

(c) If the CO_2 combining power is greater than 29 mEq., then rehydration should be initiated with Ringer's solution. In the presence of severe alkalosis the whole of the repletion may be accomplished with this solution.

(d) Following correction of the deficit, adequate maintenance should be provided to prevent recurrence.

3. The importance of differentiating oliguria due to volumetric sodium salt deficit from that due to inadequate water intake or organic damage to the kidneys, is of the greatest importance. If an oliguria is secondary to a volumetric depletion of extracellular fluid, attempts to force the kidneys to elaborate urine by infusion of sodium-free water are ineffective. By such treatment a mild oliguria can be converted into almost complete renal shutdown. On the other hand, if an oliguria is due to a water deficit, the administration of sodium salts is an inefficient and hazardous method of providing free water.

The following are of value in suggesting that an oliguria is secondary to extracellular fluid depletion: (a) the history of the case is such that an internal or external deficit of sodium containing body fluids could have occurred, (b) specific gravities are in the 1.016-1.018 range; (3) physical examination demonstrates signs and symptoms of an extracellular fluid deficit, and (4) prior "adequate" amounts of sodium free water have been followed by progressive oliguria.

Hypotonic Sodium Salt Deficits.—The following outline is pertinent only to the correction of those hyponatremic states which occur during the first week following severe trauma and operation and are associated with a lowering of the total body sodium as well as the serum sodium (states of relative water excess). As stated previously, *all hyponatremic conditions of this type do not need aggressive treatment.* Hypertonic salt administration is most effective when signs of central nervous system irritation are present. Restoration of normal tonicity and acid-base relationship is the initial therapeutic objective (Fig. 5).

1. If the CO_2 combining power is normal or not extensively de-arranged (22-29 mEq.) therapy should be initiated by the administration of 500 ml. of a solution that contains 250 ml. of ⅓ molar sodium lactate and 250 ml. of 3 per cent NaCl. If the serum CO_2 is below 23 mEq. 500 ml. of a ⅓ molar sodium lactate should be given. Con-

*U.S.P. Ringer's solution contains per liter: NaCl, 8.6 gm.; KCl, 0.3 gm. and $CaCl_2$, 0.33 gm.

†U.S.P. Hartmann's solution contains per liter: NaCl, 6.0 gm.; Na lactate, 3.1 gm.; KCl, 0.3 gm.; and $CaCl_2$, 0.2 gm.

versely, if the CO_2 combining power is over 29 mEq., then 500 ml. of a 3 per cent NaCl are given. Infusion time: 1½ hours.

Hypertonic solutions have the effect of pulling water out of the cells thereby reducing the intracellular edema as well as expanding the extracellular fluid volume. Certain precautions are essential during administration. Constant check of body temperatures is necessary to prevent hyperthermia that may accompany the administration of hypertonic sodium salts. If the temperature exceeds 102-103 degrees F. administration should be slowed or discontinued. The administration of *whole blood, plasma or serum albumin* should simultaneously accompany or immediately follow the hypertonic salt. If this is not done, the repair of the defect in tonicity may be unstable and recur in a short time.

Although 500 ml. of hypertonic salt may be adequate, the actual amount given should be determined by what is necessary to relieve the irritative symptoms of the central nervous system. Following restoration of tonicity and correction of any pH defect, then the repair may be continued by correction of any residual volumetric deficit with Hartmann's solution. The amount to be given should be governed by the clinical response.

The Recognition and Treatment of Potassium Deficits

The most important consideration in the diagnosis of potassium deficit is recognition that an injury or disease state exists that could result in such depletion. The most common of these are: (a) prolonged starvation from inadequate food intake, (b) prolonged maintenance on parenteral fluids containing little or no potassium, (c) continued loss of gastrointestinal fluids, (d) rapidly growing neoplasms, (e) conditions of severe alkalosis and acidosis, and (f) adrenocortical dysfunction. Unfortunately certain signs and symptoms resemble those of sodium deficit and may therefore be masked.

Recognition:

Central Nervous System: Twitchings and tremors progressing to weakness and flaccid paralysis. The weakness accompanying marked potassium deficit is very severe and may progress to the point where the arm cannot be raised to the mouth. Initially reflexes are hyperactive but then rapidly progress to hyporeflexia. Mental hyperactivity, disorientation and coma may occur.

Gastrointestinal: Marked ileus with silent abdomen may be present. This may also attend severe sodium deficits, however.

Muscles: Marked hypotonicity.

Electrocardiogram: Depressed S-T segment with low voltage flattened T-waves. The ECG is not necessarily diagnostic unless control ECG's are available for comparison. This is an excellent technique for following the response to treatment.

Blood Chemistry: Depression of serum potassium. A normal serum potassium may not accurately reflect initially a loss of intracellular potassium. A low serum potassium is highly suggestive of a significant loss of total body potassium.

The serum CO_2 may be elevated. This is due to transfer of intracellular bicarbonate into the extracellular fluid with resultant intracellular acidosis and extracellular alkalosis.[2]

Urine: The paradox of an acid urine during alkalosis can be observed. When the body content of potassium falls, the normal competition between the renal excretion of potassium and hydrogen during sodium re-absorption becomes deranged. The result is increased excretion of hydrogen and conservation of potassium.[3]

Treatment:

1. Following severe trauma and during the first twenty-four postoperative hours, not only is there little need for parenteral potassium but administration is dangerous. Renal function may be impaired and it is well recognized that in the early postoperative hours, trauma and tissue destruction are attended by increased serum potassium.

2. Following re-establishment of an adequate urine output, potassium salts may be safely administered. Adequate maintenance for the greater majority of cases is provided by the daily administration of 2 to 4 gm. of KC1 (27-54 mEq. of potassium). The salt may be given in glucose and water or sodium salt solutions with 2 gm. being added to each liter of solution.

3. Severe deficits of potassium may require from 6 to 12 grams of KC1 per twenty-four hours (80-160 mEq. of potassium) before alleviation of symptoms is obtained. It is better to provide adequate maintenance rather than attempt heroic correction.

Conclusion

In conclusion, it should be emphasized that the administration of water, salt and carbohydrate are expedient measures attempting to maintain reasonable homeostasis of the body fluids during periods of oral deprivation. The longer parenteral fluid administration is required the less its effectiveness.

(Continued on Page 423)

Care of the Preschool Child's Eyes

By Harold F. Falls, M.D.
Ann Arbor, Michigan

IT has been estimated that nearly 80 per cent of our sensorium is mediated through the ocular system. Accordingly, it becomes self evident that the growing child needs an exacting normal sequence of development of this important sensory organ in order to meet the increasing and exacting demands of preparation and education for modern life. Extremely minute aberrations of ocular anatomy or physiology can so deleteriously influence the subsequent achievement of visual skills that the psychological and, consequently, educational adjustment of the child becomes abnormal or even pathologic. Physicians having the responsibility of the health care during the important formative years of the child (pediatrician, generalist and ophthalmologist) must be prepared and equipped to seek out, diagnose and adequately treat those subtle ocular deviations from the normal which, if neglected, may leave the child visually handicapped. Failure to initiate definitive and early treatment can subsequently make inadequate the child's adjustment to his environment, learning processes and eventual choice of vocation.

The role of the physician in assuring normal ocular development comes into play long before birth. The obstetrician and generalist, by insisting on the maintenance of excellent maternal health standards during pregnancy, can provide the fetus with the best environment standards known to science. In this respect there is supportive evidence for insisting that the health of the pregnant woman be meticulously guarded to aid in procuring the best possible development of the ocular system of the child. Immunization and prophylaxis against exposure to the acute exanthematous diseases, particularly during the first trimester of pregnancy, should be insisted upon. Gamma globulin therapy (admittedly, not yet widely accepted) for those women so exposed perhaps may be helpful to the fetus. Considerable evidence is accumulating to indicate that a pregnant woman, exposed to an acute exanthem disease, may possess sufficient personal immunity to prevent development of visible evidence of the disease, yet not have enough immunity to protect the fetus against the disease. In certain areas of the country endemic for histoplasmosis and toxoplasmosis, the alert physician should be on guard constantly against possible infliction of pregnant women. These specific agents have a particular predilection to attack the ocular tissues of the developing child.

The passage through the birth canal can be a most traumatic journey for the central nervous system and ocular system. It has been variously estimated that 19 to 36 per cent of all newborn babies exhibit varying degrees of retinal hemorrhages from this experience. The injudicious and/or necessary application of delivery forceps may produce ecchymosis and edema of the eyelids and orbital adnexa, rupture of the corneal endothelium with subsequent corneal scarring and even, although quite rarely, subluxation of the crystalline lens. Such injuries may lead to deep-seated amblyopia. Birth trauma to the orbital margin and floor of the orbit may terminate in an osteomyelitis of those structures with disastrous consequences to the eye. The gene-controlled Rh. and A.B.O. serological incompatibilities may have associated with them serious ocular pathology such as: optic nerve atrophy, retinal scarring and muscle palsies. Prompt exchange transfusion therapy may, on occasion, prevent such ocular pathology.

All premature infants should be subjected to ophthalmoscopic examination, particularly if they have been subjected to any amount of oxygen therapy, in order to ascertain the presence or absence of moderate or even minimal retinal, optic nerve or vascular aberrations secondary to retrolental fibroplasia.

Tears are usually not produced in the newborn until the child is at least two weeks of age. Epiphora present at the latter date is usually the result of a developmental stenosis of the nasolacrimal sac or duct. If two weeks of meticulous use of drops and massage, on the part of the mother, down and in from the internal palpebral ligament

From the Department of Ophthalmology, University of Michigan Medical School, Ann Arbor.

is not successful in establishing the patency of the passageway, then judicious probing of the sac by a trained physician should usually be curative. Undue procrastination or neglect can, not infrequently, lead to a chronic dacryocystitis or, what may be worse, bacterial invasion of the cornea with subsequent ulceration and scarring.

Parents, playful relatives and doting friends should be cautioned not to play with infants if they have long fingernails, while smoking cigarettes or cigars, or wearing pointed hats, hatpins, lapel buttons and so forth. The child's eyes should not be exposed to the wheezing, coughing and nasal dripping of an ill adult. Conjunctivitis with or without an accompanying upper respiratory infection may be the sequela of such an exposure. The danger to the eyes of sharp-pointed toys present in a child's bed or crib is self-evident and to be discouraged. Baby crib or basket mobiles or bright colored objects hung close to the eyes are both dangerous to the physical eye and also may stimulate physiological accommodative functions prematurely.

Co-ordinated concomitant movements of the child's eyes are usually not apparent before four to seven months of age; however, despite this a constant deviation (in or out) of one eye should immediately suggest intraocular pathology. Such a monocular deviation should necessitate a meticulous ophthalmoscopic examination under mydriasis and even, if necessary, general anesthesia.

Serious environment, hereditary or developmental intraocular pathology most likely to be encountered at such an age level include: (1) retinoblastoma, (2) bacterial endophthalmitis or retinitis, (3) persistent primary vitreous, (4) pseudoglioma, (5) retrolental fibroplasia, (6) vitreous hemorrhage—birth trauma, (7) congenital cystic detachment of retina, (8) rubella retinitis, (9) toxoplasmic chorioretinitis, (10) optic atrophy (rubella, toxoplasma, serological incompatibility), (11) congenital optic nerve aplasia, (12) aplasia of foveal area, (13) myopia, (14) developmental cataracts, (15) congenital glaucoma and (16) cataracts secondary to metabolic, hereditary and environmental diseases: (a) galactosemia, (b) incontinentia pigmenti, (c) renal tubal anomalies—Toni-Fanconi syndrome and Lowe's syndrome, (d) calcium disorders and (e) skeletal defect syndromes. The occurrence of any of the above diseases, as well as other well-known hereditary eye disorders in parents or siblings of a child, *makes it mandatory* to subject the child to a meticulous ophthalmological examination.

Periodic monocular deviations from the normal visual axes always necessitate early and prompt ophthalmological evaluation of the infant or child and under a cycloplegic drug. Since many of these children are very likely to develop amblyopia (suppression of foveal function), immediate medical ocular therapy (glasses and occlusion) should be instigated. It is axiomatic that two visually efficient eyes are better than one! Orthoptic evaluation and, when indicated, treatment to aid in instructing the child to use his two eyes together (fusion and stereopsis) should be secured wherein available. When glasses, occlusion and orthoptic treatment have failed to straighten the eyes then surgical interference will be necessary to align the visual axes. Providing the surgery is adequate and the child possesses a desire and faculty to establish fusion, the eyes will remain straight. No child "grows out of it"—instead amblyopia becomes deep-seated and the eye partially blind.

Each individual, of course, is a law unto himself and extreme variation in response to environmental and developmental agents is the rule. The efficiency of the visual functions, among them stereopsis, is influenced by the presence of errors of refraction, minor defects of the ocular media (corneal scars, lens aberrations, cataracts), clarity of vitreous and efficiency of the nervous mechanism (retina, optic nerve and brain). The state of general health, nervous stability and even the personality influence importantly the efficiency of ocular functions. The maintenance of a well-balanced psyche and soma is a necessity for normal ocular functioning. A clear binocular visual image is requisite to good visual interpretation. To ascertain if such exists, most preschool children should be subjected to a refraction under cycloplegic for only such a refraction will accurately determine the need or lack of need for glasses in children of this age group.

It is the responsibility and objective of the *medical profession* to see that all children, as young as possible, start their learning processes with the most efficient ocular system that it is possible to obtain. In general, equipped with a normally adequate central nervous system, free of systemic or psychic pathology and possessing normal and straight eyes, the average child should be able to develop efficient stereopsis. The chief stumbling block to securing preschool medical ocular exami-

nations is the lack of or availability of ophthalmologists. If true, it becomes the responsibility of the generalist and pediatrician to capably screen the preschool age group for obvious and even subtle ocular pathology. If a stethoscopic appraisal of the sick or well child's chest and heart is an integral part of the medical examination, surely an external and ophthalmoscopic examination of the ocular system is equally as important and requisite. The physician is taught to so do in medical school and should continue to do so in his practice. It is only necessary to continue to be particularly cognizant of the importance of a normal ocular system to the integrated development of the child's entire sensorium.

The following ocular examination is recommended for all preschool and school children:

1. A meticulous ocular history with inquiry into the maternal state of health during the child's pregnancy, presence of ocular disease in the specific family and the possibility of consanquinity of the parents.

2. An evaluation of the visual acuity—monocular: (a) Age group zero to two years—ease and facility of the child's fixation of light, or ability to follow small objects or plastic spheres;

(b) Age group two to three years—ability to recognize various size pictures or objects—Snellen picture chart;

(c) Age group three to six years—an illiterate Snellen E chart.

3. External ocular examination: (a) Light or small target fixation to exhibit presence or absence of manifest deviation of the eyes and nystagmus; (b) Cover test (hand or paper shield). The eyes, while fixating a target held in the physician's hand, are alternately covered. The deviation of the eye *under cover* is observed. If it turns in under cover an esophoria exists, if out under cover an exophoria. Covering one eye while the other eye fixates and then removing the cover will reveal the presence of an exotropia or esotropia. The eye just uncovered will remain in the position of deviation that it assumed under cover indicating the lack of fusion or partial fusion.

4. Extraocular muscle actions. The eyes binocularly fixating are made to follow a light or target in all cardinal directions of gaze. First, however, the eyes must be turned to the right, then up and down and then to the left and again up and down. Muscle palsies will be evidenced by failure of the eye to rotate fully in the field of action of the affected muscle.

5. External examination of the eyes. Gross or binocular loupe study of the eyelids, conjunctiva, cornea, anterior chamber and iris under good and intense light. Particular attention should be directed toward ruling out corneal scar or lens defects.

6. Ophthalmoscopic examination. The ophthalmoscopic examination should be done under mydriasis and should include all intraocular structures.

Summary

A plea is made for meticulous and careful *medical* examination of the preschool child's eyes. The obstetrician, pediatrician, generalist and ophthalmologist share the *medical* responsibility of preparing the child ocularly for his preparation for life. Diseases of the preschool child's eyes are medical problems and are solely the prerogative of the medical profession. These should not be relegated to non-medical practitioners.

HEW REPORTS CANCER CHEMOTHERAPY PROGRAM IN FULL OPERATION

The Public Health Service's "massive effort" to discover chemical compounds that will be effective and safe in the treatment of cancer is now in full scale operation, according to HEW Secretary Flemming. Hospitals, universities, research laboratories, industry and government are co-operating in the program which is being directed by the Public Health Service through its Cancer Chemotherapy National Service Center. The program has been steadily expanded over the past five years with these results:

1. More than 40,000 compounds and other materials are being tested annually on more than a million mice to uncover chemicals with anti-cancer properties. So far some 70,000 materials have been put through screening tests.

2. Between 400 and 600 materials a year are showing enough promise to be given further analysis, with tests on larger animals. Nine out of ten materials are rejected in this process either as ineffective or too toxic for human use.

3. About forty materials a year are approved for clinicial trials with human patients in about 150 co-operating hospitals in the U. S. Currently about seventy materials are undergoing clinical trials.

Comments Secretary Flemming: "So far none of the drugs being tested has proved to be a cure for cancer. The only existing cures for cancer are through treatment by radiation or surgery. The Surgeon General advises me, however, that some promising new compounds developed in the chemotherapy program are being tested against a variety of cancers."

Acute Appendicitis

An Analysis of Complications in 551 Patients

By J. L. Ponka, M.D., H. L. Shields, M.D., and D. M. Evans, M.D.

Detroit, Michigan

FROM a superficial review of the literature one might gather the impression that the problem of appendicitis has been solved. The emphasis has been on the low mortality rates.[8] Several groups[2,7,9] report the mortality rates of less than 1 per cent, and some have had no deaths[4,6] in five-year periods. Few writers are discussing the rather respectable incidence of complications. Boyce,[1] in his book and numerous articles on acute appendicitis, has pleaded for early diagnosis and early surgery to avoid fatalities and complications.

TABLE I.
COMPLICATIONS FROM ACUTE APPENDICITIS
(551 Patients)

Complication	No.	Per Cent
Peritonitis	40	7.3
Abscess	20	3.6
Wound infection	14	2.5
Hernia	5	0.9
Postoperative ileus	4	0.72
Phlebothrombosis	5	0.9
Pulmonary emboli	2	0.36
Subdiaphragmatic abscess	1	0.18
Total	91	16.46

We wish to point out that deaths are still occurring from this surgically curable disease. In 1954 there were 2044 deaths, and in 1955 there were 2093 deaths from appendicitis, according to the *Vital Statistics of the United States.*[11,12] Most of these deaths occurred in the younger age groups.

Our interest in acute abdominal emergencies is stimulated by the daily encounter with patients requiring a differential diagnosis, which, of course, includes acute appendicitis. McGraw[6] reviewed the cases of appendectomy at the Henry Ford Hospital in 1948, and reported a zero mortality rate for a five-year period. Furthermore, he reported the complication rate at 4.5 per cent. Culotta[3] in 1956 reported a complication rate of 15.5 per cent following appendectomy.

We studied a total of 551 cases of acute appendicitis treated by appendectomy during the years 1948 through 1952. There was one death in this series due to a pulmonary embolus. On the other hand, the incidence of complications was 16.46 per cent (Table I).

TABLE II. ANTIBACTERIAL AGENTS USED IN TREATMENT OF COMPLICATIONS OF ACUTE APPENDICITIS
(551 Patients)

Antibiotic Used	Patients
Penicillin	190
Penicillin and streptomycin	247
Aureomycin	19
Chloramphenicol	9

TABLE III. AIDS IN TREATMENT OF COMPLICATIONS OF ACUTE APPENDICITIS
(551 Patients)

	No.	Per Cent
Drains	127	23.0
Levine tube	148	26.8
Miller Abbott tube	25	4.5
Blood transfusions	18	3.3

The complications, except phlebothrombosis and pulmonary emboli, were directly due to the extension of the infection beyond the confines of the appendix.

It is in the treatment of these complications that the antibiotics have proven most valuable. Table II indicates the antibacterial agents used. We would expect that the extensive use of antibacterial agents would eliminate most of the complications; however, this has not been our experience.

Other aids were used to combat local infection, ileus and anemia. These are summarized in Table III. It is apparent that these adjuncts are valu-

Presented at the Annual Meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

Dr. Ponka is Associate Surgeon, Henry Ford Hospital, Detroit.

Dr. Shields in private practice, Bay City, Michigan.

Dr. Evans is Chief Resident Surgeon, Henry Ford Hospital, Detroit.

able in controlling the infection after it has extended beyond the appendix and resulted in localized abscesses and caused secondary ileus.

These statistics provide us with some cause for reflection. *How can we decrease the death rate further? How can we reduce the high rate of complications?*

TABLE IV. HISTORY IN ACUTE APPENDICITIS
(551 Patients)

	No.	Per Cent
Catharsis	44	8.0
Enemata	63	11.4
Narcotics	10	1.8

Accurate clinical diagnosis must be taught to the oncoming younger surgeons. The pitfalls in diagnosing appendicitis in infants and young children, and in aged patients, must be pointed out. The fact that the so-called typical history can be elicited in approximately one-half of the cases must be pointed out.

The profession, as well as the lay public, must be repeatedly alerted to the truth that the proper treatment for appendicitis is early appendectomy. The operation should be done while the infection is confined to the appendix. Not every physician is aware of the basic facts shown by Toon[10] that antibiotics are not effective in controlling experimental obstructive appendicitis. There are articles (Harrison[5]) appearing in the surgical literature, advocating treatment of acute appendicitis with antibiotics.

Furthermore, to emphasize the need for public health education, the Table IV shows that catharsis, enemata and narcotics, are still being used as modes of treatment of the patient presenting an acute abdomen. Besides being dangerous, these ill-advised efforts delay the definitive appendectomy which is curative.

Conclusions

1. The fact that early appendectomy has long been established as the curative procedure for acute appendicitis needs emphasis.
2. Antibiotics are not effective in the treatment of appendicitis associated with appendicular obstruction.
3. Complications of appendicitis are much too common, (16.46 per cent in this series) and are the result of delays in diagnosis and surgical treatment.
4. Antibiotics, surgical drainage, gastro-intestinal tract decompression and blood transfusions are life saving adjuncts in the treatment of complications.
5. The public and the profession as well need to be reminded that appendicitis can be disabling, as well as fatal, if neglected.

References

1. Boyce, F. F.: Acute Appendicitis and its Complications. New York: Oxford University Press, 1949.
2. Cantrell, J. R. and Stafford, E. S.: Diminishing mortality from appendicitis. Ann. Surg., 141:749 (June) 1955.
3. Culotta, R. J., and Jordan, G. L., Jr.: Acute appendicitis: Analysis of three thundred and eighty-seven cases. Am. Surg., 23:356 (April) 1957.
4. Deaver, J. M.: Acute appendicitis in children. Ann. Surg., 136:243, (Aug.) 1952.
5. Harrison, P. W.: Appendicitis and antibiotics. Am. J. Surg., 85:160 (Feb.) 1953.
6. McGraw, A. B.: Factors contributing to low mortality from appendectomy for acute appendicitis: Ten Year Study. Arch. Surg., 58:171 (Feb.) 1949.
7. McLanahan, S.: Further reductions in mortality in acute appendicitis in children. Ann. Surg., 131:853 (June) 1950.
8. Tashiro, S., and Zinninger, M. M.: Appendicitis; Review of 936 cases at Cincinnati General Hospital. Arch. Surg., 53:545, (Nov.) 1946.
9. Thieme, E. T.: Appendicitis: 15 year survey. A.M.A. Arch. Surg., 70:207 (Feb.) 1955.
10. Toon, R. W., and Wangensteen, O. H.: The effect of antibiotics on obstructive appendicitis in rabbits. Proc. Soc. Exper. Biol. & Med., 80:578 (Aug.) 1952.
11. U.S. Public Health Service: Vital statistics of the United States, 2:46. Washington, D. C.: Government Printing Office, 1954.
12. U.S. Public Health Service: Vital statistics of the United States, 2:25. Washington, D. C.: Government Printing Office, 1955.

"BRICKS AND STRAW"

Not in decades have the non-educators of our country engaged in as much debate concerning our schools and colleges. And for this situation, we must thank the Russians and their earth satellites and their great progress in other fields. It is wholesome and healthy to have the largest possible number of our people thinking about the quality of education, the extent of educational opportunity, the cost of education, and the benefits of our educational system.—John A. Hannah, President, Michigan State University.

Thanks, Jay!

Jay Ketchum is leaving Michigan Medical Service.

That hurts Michigan Medicine. It also hurts Michigan.

Why is Jay Ketchum, a layman, so important that his departure rates significant mention as a loss to Medicine, when there are many doctors of medicine who leave Michigan and their passing goes unheralded?

I think the answer to that points to the most important fact that Medicine faces today. The fact is that our sociology and economy being what it is, we have been forced to:

1. Organize a system known as Michigan Medical Service in order to
2. Protect the public and ourselves to the extent that we can
3. Continue to supply competent, personal, medical service to the sick—the kind of friendly intimate service the people need from their doctors.

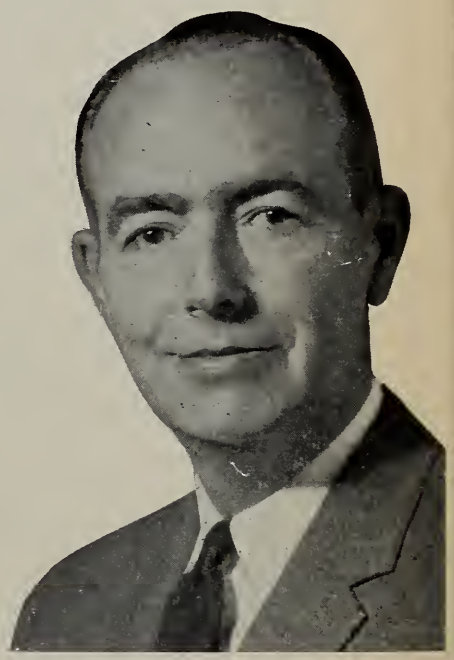
Without the protection of a good voluntary prepaid medical care plan we cannot give that kind of service. Without that kind of service, Medicine fails as a science, an art and a profession.

Jay Ketchum administered the best medical service plan in the country—our plan. He administered it well, and under him it protected Michigan and Michigan Medicine. It hurts to lose the captain of the armed guard.

Delbert B. Hollowell

President, Michigan State Medical Society

President's



Message

Editorial

MEDICAL AND HOSPITAL SERVICE IN WASHTENAW COUNTY

Washtenaw County has been a center of medical activity in the state of Michigan for many years, beginning with the establishment of the University Hospital in Ann Arbor in 1869. Not only has the University Hospital grown and expanded, but other facilities also have developed to a degree which makes Washtenaw County outstanding in this regard. There are facilities available for indigents and for private patients as well.

The University Hospital was founded in 1869 when the regents authorized the conversion of a professorial residence into a hospital. This was, however, only a receiving home, where patients brought in for the clinics could be kept for "presentation to the class." It had no operating or dressing rooms, but was significant because it was the first instance in the United States of a University owning and controlling a hospital in connection with its own medical school.

In 1875, the Legislature made a grant of $8,000 for an enlarged University Hospital, to which the city of Ann Arbor contributed $4,000, and the following year the Hospital opened with sixty beds. It consisted of two pavilions extending from the rear of the original Hospital.

In 1878, another ten beds were added to be available to the newly created Homeopathic faculty. In 1879 an appropriation was made for converting another residence into a Homeopathic Hospital, all the space in the original building reverting to the Medical faculty. Funds were also made available at this time for the addition of an operating theatre, dining room, and kitchen. In 1881, an eye and ear ward was added, the first special ward to be added as a separate building.

In 1889, the city of Ann Arbor contributed $25,000 to augment a legislative appropriation of $50,000, and a new Hospital was constructed on Catherine Street, being completed in 1891. The old hospital on the campus was taken over by the dental school and used as such for many years before it was torn down to make room for the present chemistry building. The new hospital consisted of two buildings, one on the east for the medical faculty, and one on the west for the homeopathic faculty. Later some eighteen other buildings, large and small, were built. When the new Homeopathic Hospital on North University Avenue was opened in 1900, the west building became the medical ward and the east building, the surgical ward. In 1904, the Palmer ward, containing sixty beds, was opened as a memorial to Dr. A. B. Palmer by his widow, who contributed $20,000. An eye and ear ward was opened in 1910. An isolation ward was built in 1914 with $25,000 contributed by the city of Ann Arbor. In 1906, the Psychopathic Hospital was built and controlled by the state for many years. In 1937, however, it was turned over to the University. In 1906, the Department of Obstetrics opened in a building moved from North University Avenue, and in 1908 a second building was added.

The construction of the present building on Ann Street, begun in 1920, was completed in 1925, at a cost of $4,440,000. Couzens Hall for nurses was also completed in 1925. Two additional floors for the treatment of tuberculosis were added in 1931, the neuropsychiatric institute in 1937 and an intern's home in 1929. Simpson Memorial Institute was added in 1926 as a memorial to the late Thomas Henry Simpson by his wife.

At present, the operational bed capacity is 1047 beds, including forty-three bassinets. Fifty-three interns and 206 residents are in training, along with 651 student nurses. In 1957, there were 7,270 surgical and 14,335 medical admissions, a total of 21,605. Research facilities consist of the Kresge Research Building, totalling 140,000 square feet, and the Human Stress Research Laboratory, totalling 4,280 square feet.

The University Hospital has always been primarily devoted to the care of indigents, but in 1932 set aside a limited number of beds for private care. In addition, certain members of the faculty have the privilege of outside private practice and do their surgical work at St. Joseph's' Mercy Hospital in Ann Arbor.

The latter hospital was founded in 1911 in a house on North State Street which had been deeded to the Sisters of Mercy for a hospital. The

original staff of nine men was closed, and was controlled by the University Hospital medical staff according to contract. In 1931, however, this contract was cancelled and the staff became open. Since then the staff has gradually increased until at present it numbers about 130.

The original hospital had seventeen beds, with services in medicine, surgery, obstetrics, laboratory and emergency.

In 1917, a new building erected on North Ingalls Street with about ninety beds, was called "St. Joseph Sanitarium." During the influenza epidemic of 1918-20, the hospital was commandeered by the U.S. Army to care for its influenza cases. There were many deaths, including that of Sister Ligouri and two nurses.

In 1940, an expansion program was undertaken, and the bed capacity was increased to approximately 275. However, the needs of the growing community of Washtenaw County and the demand for hospitalization encouraged by hospital insurance led to further expansion in 1955. The new building, attached to the 1940 structure was in "X" design, and brought the total bed capacity to 499, although at present only 439 are operational, including fifty-four bassinets. Eleven interns, fifteen residents, and 117 nurses are in training. In 1957, there were 7,111 surgical and 9,958 medical discharges, a total of 17,069.

The staff is divided into a medical and a surgical division. The former includes internal medicine, physical medicine, allergy, dermatology, neurology, psychiatry, general practice, pediatrics, roentgenology and laboratory and pathology. The latter includes general surgery, ophthalmology, otolaryngology, oral and plastic surgery, obstetrics and gynecology, orthopedics, thoracic surgery, neurosurgery and urology. There are five free clinics; children's, obstetrics and gynecology; dermatology; medicine, and rheumatic fever.

A plan is on foot to convert one floor of the new building into a "senior residents facility."

Research is carried on in (a) the radio-active isotopes research laboratory; (b) the animal research laboratory; (c) the bacteriology research laboratory; (d) the medical library and (e) the cardiac research laboratory (soon to open).

Mercywood Sanitarium was established in 1925 as the neuropsychiatric unit of St. Joseph's Mercy Hospital, and an addition was made in 1953, bringing the present bed capacity to 130. As of July 1, 1958, Mercywood became an independent facility with an active staff of six psychiatrists. Annual admissions number about 1300. In the hospital is given short-term, intensive psychiatric treatment with a view of returning the patient to his family, job, and community. Patients are also accepted for diagnosis and evaluation in order to assist the families in long-term planning.

Beyer Hospital, in Ypsilanti, was made possible by a bequest of $50,000 in the will of the late Augustus Q. Beyer. The building was dedicated June 15, 1918 with twenty-five beds and three bassinets. In 1920, a house opposite the hospital was purchased as a nurses' residence.

During 1941-42, the population of the area trebled, due largely to the erection of the Willow Run Bomber Plant two miles east of Ypsilanti. By 1943, it became necessary to add to the hospital capacity, and a three-story structure with a total bed capacity of 154 including thirty-five bassinets was opened September 30, 1944. At present, two interns are in training, but there is no nursing school attached. In 1957, there were 9,342 total admissions.

In 1945, the Legislature passed a bill authorizing two or more townships, cities or villages to incorporate a hospital authority for the purpose of "constructing, improving, operating or maintaining community hospitals." As a result, the People's Community Hospital Authority" was formed in 1945 and in 1947 leased Beyer Hospital and acts as its Board of Trustees.

The Ann Arbor Veterans Administration Hospital was completed in 1953, with 486 beds (no bassinets). It has ten examining rooms, five dental chairs, an x-ray department with deep and superficial therapy room, laboratories, rehabilitation unit, and a surgical unit with nine operating rooms. It has no interns, but approximately thirty-six residents are rotated through the various services from the University Hospital. No nursing school is attached. Last year, there were 1448 medical admissions, 1456 surgical, 57 tuberculosis, 258 neurological and 222 psychiatric, for a total of 3442. Facilities for research are available in general medical, surgical, psychiatric and radio-isotope research. This is being expanded by the construction of an animal laboratory.

The Ypsilanti State Hospital was formally opened July 28, 1931, with 900 beds. It was further expanded in 1937, 1948 and 1954 so that at the present time 4100 patients are being cared for. Present plans call for the addition of a chil-

dren's unit in the near future. Approximately 920 patients, all primarily psychiatric, are admitted each year. During the past several years, the recovery phase has been shortened due to the newer drugs, and the number of patients requiring quiet rooms has been cut to less than a third of the former number.

The hospital has a medical staff of twenty-one, in addition to a medical and a surgical resident from the University Hospital. Through these residents, there is rapid consultation in every phase of medicine and surgery by specialists from the University. The psychiatric residency has been approved by the American Psychiatric Association, and thirteen residents are in training. Teachers from the University give lectures and seminars in neuropsychiatry, neuroanatomy, neuropathology, and neurology. A children's service was established in 1956 under the supervision of a child psychiatrist, and there are now about 150 patients under sixteen in the hospital. Two dentists and two dental assistants give full-time service, and one oral surgeon gives part-time. About 10,000 dental services are given per year.

A three-months nurses' training program, approved by the American Psychiatric Association is utilized by eleven hospitals in the area, and the occupational therapy department trains affiliates from three Michigan schools.

Research facilities are under the direction of a senior staff member and include a joint, five-year research project with the University of Michigan's Mental Health Research Institute, to study the nature of schizophrenia. Other research is in the area of sociological studies, and in the evaluation of different tranquillizing drugs.

The population of Washtenaw County is approximately 150,000, and there are 357 members of the County Medical Society. Of these, eighty-three are associates in training, leaving 274 in active practice, either privately or full time in hospital. This gives an average of one physician to about 550 people, which is better than the average for the state or nation. In addition, there are a few physicians who do not belong to the County Medical Society.

Of the total membership in the Society, only fifty-two are in general practice while 201 are specialists in the various branches of medicine and surgery. The remainder are in associate and other categories of membership. The ratio of general practitioners to specialists is certainly not typical for other counties of the state, and is accounted for by the fact that a great deal of the work is referred, and by the presence in the county of large, specialized state hospitals.

The 5870 hospital beds in the county provide about one bed for every twenty-five people. On the basis of an average of two employees for each patient, it is seen that around 11,000 employees are needed to staff the hospitals. This is a sizable segment of the total work force.

In conclusion, it can be said that Washtenaw County is amply provided with medical and hospital facilities for the care not only of its own residents, but of many from other parts of Michigan.

R. Wallace Teed, M.D.

Bibliography

1. The University of Michigan: An Encyclopedic Survey, V. U. of M. Press, 1951.
2. Beyer Memorial Hospital, 1918-1953, Van Gasse and Hooper, 1953.
3. The Ypsilanti State Hospital, 1931-1956, Department of Mental Health, Lansing, Michigan.
4. Michigan Recorder for Mental Health 2:14, January, March, 1958.

HOSPITAL COSTS AGAIN

For the past several years, Michigan has been treated to reports and complaints on hospitals. The costs of our hospitals have been increasing, and about every fifteen or twenty months requests have been made to increase the rates of the Michigan Hospital Service insurance program. Every one of these requests for the past ten years or more has brought criticism from many sources, but primarily from the labor leaders to the effect that "hospitals were making no effort to hold their charges down." In 1956, another request was made for a Blue Cross advance of around 20 per cent. The state insurance commissioner protested—demanding further information. The Governor appointed a commission of prominent citizens, labor leaders, bankers, judicial officials, hospital administrators and others, to determine "why the costs of hospital care should continue to go up" and "to find a method of holding those costs down and yet supplying more adequate hospital service."

This is an old story which we have repeated many times. The Governor's Commission finally issued a report in which they recommended a study be made by certain designated persons at the University of Michigan. There followed many negotiations and requests for funds (even asking Michi-

gan Medical Service and Michigan Hospital Service to contribute to the study) and finally led to the selection of what was considered an unbiased board of investigators and the final provision of money for the study. The Kellogg Foundation of Battle Creek made over $300,000 available when Board members were convinced through action of the Michigan State Medical Society, Michigan Medical Service, Michigan Hospital Association, and Michigan Hospital Service that they not only would all co-operate in this study but would accept its report as final and unbiased.

At the dawning of the new year, radio and newspaper reports from various sources and the University of Michigan news releases indicated that the investigating team at the University of Michigan was ready to commence detailed study and that interviews were being made. The preliminary report on one phase is promised for sometime in June of this year. The complete study is broken up into a number of phases and the final report is promised during the year 1960. It is hoped this report will allay suspicions and allow the public officials, the public, and the subscribers to Michigan health services a chance to secure the most efficient insurance possible at the lowest possible rate.

Remember, Michigan Hospital Service has raised its premium rate twice since the Governor's study was started. There are certain fundamental reasons why hospital costs are on the upgrade. In the early days of Blue Cross and Blue Shield, the length of stay in the hospitals began a decreasing phase, but the number of patients per thousand subscribers sent into the hospitals each year has been constantly increasing. Blue Cross pays these hospital bills on a per diem basis. That per diem was figured out for each hospital annually and adjustments made to correspond with the new figures. Michigan Hospital Service paid the actual cost of operating a hospital plus an added 2 per cent.

Last October, a change was made in this arrangement. It was determined to group hospitals in an area—the larger ones among themselves and the smaller ones among themselves, and to pay them all upon the per diem costs as determined for the group. This idea brought sharp protests in the Grand Rapids area as has been noted in news items. When those protests were published they had a very severe reaction upon the public's already tense feeling about hospitals.

Another fundamental reason for the increase of hospital costs is the fact that the first couple of days in the hospital are the most expensive due to the numerous services rendered—laboratory work, operating room expense, various procedures, anesthesia, x-ray and many other items congregated in the first day or two of hospitalization. On the continuing days (now averaging about 7¾ days per case), the cost dwindles down to custodial care, hall nursing, use of bed and room, meals, bathing, change of bed linen, et cetera.

Another very vital item in the cost of medical care, which the persons who are making the loudest outcry persistently refuse to recognize, is that the expense of operating a hospital is from two-thirds to three-fourths represented by salaries and wages—(labor costs). The other costs have changed very gradually, but labor costs have been increasing rapidly and, even so, are still well below corresponding costs in industry. These costs have progressed every year since the war. Every year, we face newly established wage levels and the constant talk that the cost of labor and the benefits accruing to the worker must continue to increase. Every one of these steps is reflected in the cost of operating a hospital.

Our general public must awaken to the fact that hospital costs are advancing in the same proportion or possibly slightly higher than the cost of living, about equal to the increased cost of labor. We must accept the inevitable and determine to live with it. If the cost of hospitalization is priced out of tolerance or out of the possibility of paying, there is only one answer in sight. We all know what that is, and it would also involve medicine.

REPORT ON HOSPITALS

"An Unofficial Medical Investigation of Hospitals Turns Up Shocking Evidence That Patients Are Being Mistreated, and Urges Some Drastic Reforms. For Its Findings, Turn the Page."

Such is the title of the lead article in *Look* magazine for February 3, 1959, which was delivered to the public on January 20, 1959.

While financial problems get worse and everybody is disturbed, *Look* magazine comes out with a very exciting and most alarming report. It claims to be publishing a secret study made in California which was "suppressed by doctors who found it 'too hot to handle.'" The article consists of published parts of a report which was activated by and grew out of an unusual prevalence of malpractice in certain areas in California. Interviews and

studies were made and reports were written (probably to the California Medical Association) in an attempt to account for the malpractice suits. The abuses and neglect being reported in this article grew out of malpractice cases and the dissatisfaction of patient with doctors, orderlies and nurses. One study was made which prompted another. The second survey went into eight hospitals, four of which had a very large percentage of their doctors suffering from malpractice suits. The other four hospitals of about the same size had very few malpractice suits. To determine why, actions and procedures in these eight hospitals were studied and compared. In all of them was found some dissatisfaction among patients (even months after leaving the hospital), and quite serious tensions between doctors and nurses; in the other group, there was a better feeling, but still some things happening in the hospitals which people did not like—incidents which very probably could happen in any hospital and could be easily resolved.

Included in this article is a "Bill of Rights for Patients" prepared by the California Medical Association, and in the official report are discussed what changes in hospital routine must be made to satisfy the emotional needs of patients.

The research writer, the medical research editor of *Look,* Roland H. Berg, sums up his article as follows:

> "These changes are possible, the report explains, but the initial impulse to get them started must come from the patients themselves. Changes will be made only when patients revolt and, in the words of the investigators, become more trouble in the hospitals . . . . Every patient bears responsibility for seeing that he gets good health care by means of thoroughly unsubmissive and firm demands upon the medical personnel who are paid by him* to provide for these very needs."

This last sentence certainly carries no implication of an attempt to quiet the ruffled waters.

NEW DRESSES

The *Ohio State Medical Society Journal* last year changed its face type into one much more readable, a little larger, and which made a very good impression. With its January 1959 number, it has changed its cover, too, eliminating the outline map of the state of Ohio, putting a color splash across the upper part of the page and putting part of its index of papers on the front page.

Minnesota Medicine, official journal of the Minnesota State Medical Association, is coming out with a new cover, eliminating the advertising which has been on the front pages of so many of our state medical journals.

The Journal of the Indiana State Medical Association for years has used a map of the State, silhouetted against a colored background, with contents imprinted on the white map. Beginning with the September, 1958, number, the outline is very small, to the left with a clear space cut out of the body which contains an attractive colored picture. This is being changed every month.

The *Oklahoma Journal* is continuing a program set up three or four years ago, of publishing a different picture on its cover page each issue, a small picture entirely separate from the large color background.

Congratulations, Sister Medical Journals!

INCOME TAXES

During the month of March we must all think of closing out last year's income tax return and predicting what we shall have to pay in the year to come, the final date for filing being April 15. This brings to mind many things which we as doctors are privileged to do in a manner to reduce our income tax. For a number of years, all doctors of medicine have been urged to subscribe to the American Medical Education Foundation which was established to provide the medical colleges with funds which may be used for many purposes outside their regular budget. In several states, a special assessment is being made, in addition to membership dues, for this purpose. The Michigan State Medical Society has urged our members to contribute as liberally as possible, and a creditable showing has been made.

In addition to sending memorial gifts to the Cancer Fund for victims of cancer, to the Heart Association for heart disease victims, and to the Wayne State University Medical Library in memory of friends who were interested in that endeavor, one could also send contributions to the American Medical Education Foundation. The editor has found that families of departed doctors are very much pleased with such a memorial gift and express themselves as believing that the doctors would have liked nothing better.

There are many other causes which Michigan doctors could remember, such as the University of Michigan Medical School—especially by its gradu-

*Not the hospital.

ates—the Beaumont Memorial for those interested, or the Michigan Foundation for Medical and Health Education. Any one of these would be happy to accept such a bequest. Those contributions sent to the University of Michigan or to Wayne State University could be specified "for research" and could go into any number of projects as determined by the faculty.

Kalamazoo has a most worthy project to which memorial gifts are sent—a Home for Senior Citizens, where needy and worthy elderly people, single or couples, may live and board. Monthly contributions are producing astonishing amounts of money which materially aid this facility.

COMING LEGISLATION

On the national scene, we shall again have two significant questions to consider. The Jenkins-Keogh Bill would allow professional men and other self-employed persons to gain a small measure of benefit similar to the provisions made possible in industry by setting aside certain funds and building up a reserve before taxes. This bill passed the House of Representatives last year but failed in the Senate. Indications are that if pressure is made and the work gets started early, there is a possibility of passing it this year.

A facsimile of the Forand Bill which failed passage in the last Congress will undoubtedly be before us again under another name and will demand our extreme consideration. Members of the medical profession have opposed it because they believed it was a step into government medicine. It proposes to allow the beneficiaries of the social security program who are sixty-five and are drawing benefits, also to have the benefit of hospital and medical attention. In December, the medical profession took action in Minneapolis which holds much more hope of success. The whole medical profession is now proposing a remedy, a service by which suggestions made in the Forand Bill can be given without government stepping into the practice of medicine. About 37 per cent of the 15,500,000 people over sixty-five years of age are now carrying insurance and are able to care for themselves. There is no reason why the government should take care of them. The report adopted by the AMA House of Delegates in Minneapolis suggests that the medical profession set up an insurance program to take care of these older people at reduced premium rates, providing they are in the income group where finances are inadequate and not sufficient to pay medical expenses. These are the people for whom our doctors have always cared with very little thought of remuneration. This new AMA program has been outlined and roughly presented by the Blue Shield Commission. This program will provide for these elderly citizens a means whereby, within the limit of their ability, they are able to pay a proportionate cost of the services which they will need. It is necessary for the medical profession to accept this burden for this limited group of patients rather than allow the federal government to extend that same service to the 15,500,000 people whom they will have to serve, and whom they will cover by some method devised by the politicians and operated by others than doctors of medicine.

WATER AND SALT DEFICITS IN SURGICAL PATIENTS

(Continued from Page 411)

The problem ceases to be one of water and salt maintenance and becomes the prevention of metabolic disintegration from starvation as the total metabolic problem gradually assumes the ascendency. Parenteral water and salt must then be implemented by provision of the maximum amounts of energy calories and protein by any means of sources available. Final resolution of the problem can only be accomplished, however, by restoration of the adequate oral intake of all elements of nutrition.

References

1. Almond, C. H., and Berry, R. E. L.: Significance of the fall of serum sodium following operative trauma. A.M.A. Arch. Surg., 77:345, 1958.
2. Anderson, H. M., and Mudge, G. H.: The effect of potassium on intracellular bicarbonate in slices of kidney cortex. J. Clin. Invest., 34:1691, 1955.
3. Berliner, R. W., Kennedy, T. J., and Orloff, J.: Relationship between acidification of the urine and potassium metabolism. Am. J. Med., 11:274, 1951.
4. Berry, R. E. L.: The clinical aspects of acute peripheral oligemia from plasma water and sodium salt loss. A.M.A. Arch. Surg., 67:408, 1953.
5. Randall, R. E., and Papper, S.: Mechanism of postoperative limitation in sodium excretion: The role of extracellular fluid volume and of adrenal cortical activity. J. Clin. Invest., 37:1928, 1958.
6. Smith, H. W.: Salt and water volume receptors. Am. J. Med., 23:623, 1957.
7. Verney, E. B.: Absorption and excretion of water: Antidiuretic hormone. Lancet, 2:78, 1946.

Michigan State Medical Society

Annual Session of the Council

January 30-31, 1959

HIGHLIGHTS

- Annual Reports of the Secretary, the Treasurer, and the Editor were presented, thoroughly discussed by Reference Committees and approved (see pages 427, 435).
- The Auditor's Report for the year 1958 and the budgets for 1959 were approved (see page 437).
- Reports of the three standing committees of The Council (County Societies Finance, and Publication), meetings of January 29, 1959, routinely were referred to Reference Committees, and approved with minor amendments.
- Secretary L. Fernald Foster, M.D., Detroit; Treasurer Wm. A. Hyland, M.D., Grand Rapids; Editor Wilfrid Haughey, M.D., Battle Creek, were re-elected for 1959.
- Progress report on Michigan Hospital Service (Blue Cross) was presented by MHS President John N. Lord.
  Progress report on Michigan Medical Service (Blue Shield) was presented by MMS President L. Fernald Foster, M.D.
- Annual reports of individual Councilors on the condition of the profession in their Districts were presented, as per Bylaws provision (Chapter 10, Section 2).
- MSMS Group Life Insurance Plan: Progress report to January 26 was presented by Chairman M. A. Darling, M.D., Detroit—a total of 457 applications had been received in the first five weeks; another letter to the membership, urging participation in this excellent group life program, undoubtedly will result in additional requests for coverage within the next 30 days, assuring a sufficient number for approval by the State Insurance Commissioner to forward the program.
- Report on Social Security poll of MSMS membership: Speaker K. H. Johnson, M.D., presented the following returns, as certified by a special committee of the MSMS House of Delegates:

Total ballots received from MSMS membership	2,829
Favoring Social Security coverage for M.D.'s	1,781
Opposing Social Security coverage for M.D.'s	1,048

- The Michigan State Medical Society voted to co-sponsor the 12th Annual Conference on Aging to be held in Ann Arbor, June 22-24, 1959.
- "Wet Clinics" of the Michigan Heart Association to be held in local areas: This new program of MHA was approved by The Council.
- Simplified Claim Forms developed by Health Insurance Council: A booklet of the HIC was authorized to be sent to all members of the Michigan State Medical Society with a covering letter, inviting attention to these Simplified Claim Forms of HIC as time savers for physicians.
- Michigan Clinical Institute: 1. Three special half hour television shows, sponsored by Upjohn Co. of Kalamazoo, were approved to be presented in Detroit during the days of the MCI. 2. Ubiquitous hosts for awardees at the Testimonial Luncheon of March 12 were appointed.
- World Medical Relief of Detroit was given the approval of the Michigan State Medical Society for its relief work in all parts of the world.

- American Medical Education Foundation: report indicated that, as the result of an enclosure of notice inviting M.D. contributions to AMEF sent with the 1959 MSMS dues billing, 110 Michigan doctors contributed $1,390.00 which was over and above numerous contributions sent directly by M.D.'s to specific medical schools.

- Seven AMA Delegates from Michigan: Due to increase in MSMS membership, AMA Delegate Chairman Wm. A. Hyland, M.D., of Grand Rapids, reported that MSMS is now entitled to its seventh AMA Delegate.

- Cancer Program to the Public: The Council urged the Program Committee of the 1960 Michigan Clinical Institute to consider the subject of cancer for the public television show which will precede the MCI in Detroit.

- Public Relations Counsel's report included analysis of federal and state legislation of interest to the medical profession; progress report on Michigan Association of the Professions; proposed conference for science writers at Michigan State University on April 29 in which MSMS will co-operate; schedule of exhibits at 1959 fairs in Michigan; formation of a "Freedom in Action Group" in Michigan; and list of twenty-nine service club speakers during the Michigan Clinical Institute.

- Increasing number of doctors of medicine in Michigan. A. C. Furstenberg, M.D., Ann Arbor, Dean of the University of Michigan Medical School, presented a most informative talk, illustrated by lantern slides, on ways and means of increasing the number of doctors of medicine in this State. He invited the help and impetus of the Michigan State Medical Society to achieve this desired result. The Dean praised the work of the National Fund for Medical Education and the American Medical Education Foundation for monetary contributions to medical schools over the years (including the individual contributions of doctors of medicine). His presentation was discussed by O. K. Engelke, M.D., Ann Arbor, President of the Michigan Health Council, who reported on the success of the MHC's Doctor Placement Service.

- The Pharmaceutical Manufacturers Association establishment of a National Council for the Advancement of Medical Research and Education—to gain more trainees in the scientific field—was given support and cooperation by The Council.

- Matters of mutual interest were discussed with A. E. Heustis, M.D., Michigan Health Commissioner, including six budgetary items of the Department of Health; radiation protection; hospital licensing; reorganization of the State Department of Health; tuberculosis beds.

- Jay C. Ketchum. The monumental work on behalf of the Michigan State Medical Society and the medical profession of Michigan during the past seventeen years, rendered by the Executive Vice President-General Manager of Michigan Medical Service (Blue Shield), who is leaving Detroit for a position in Chicago, March 1, was recognized by The Council which decreed that a suitable resolution be spread on the minutes of The Council expressing appreciation to Mr. Ketchum for his untiring efforts and his indelible imprint on Michigan medicine, that an Award be made to Mr. Ketchum on the occasion of the Testimonial Luncheon during MCI, on March 12, and that The Council nominate Mr. Ketchum for Honorary Membership in the Michigan State Medical Society.

- Special supplements of The Journal were authorized as follows: (a) the directory edition; (b) the House of Delegates edition; (c) the officers and committee edition. Also recommendation for typographical refinements in JMSMS were referred to the Editor and the Chairman of the Publication Committee with suggestion that these improvements be put into effect if the costs are met by increased revenue; improvements that can be carried out without increased revenue are to go into effect immediately.

- Research material on maternal deaths. Francis A. Jones, M.D., Lansing, Chairman of the Maternal Health Committee, outlined to The Council his Committee's recommendation that a series of six proposed short articles for JMSMS be presented as information to the membership; this recommendation was approved and the papers are to be reviewed by the Publication Committee and Legal Counsel.

- Thanks were extended by The Council to Wm. T. Coulter, St. Paul, President of Bruce Publishing Company, for his flying to Lansing to advise the special committee on developing typographical refinements in JMSMS.

- Monthly reports of Council Chairman D. Bruce Wiley, M.D., Utica; President G. B. Saltonstall, M.D., Charlevoix; President-Elect M. A. Darling, M.D., Detroit; Secretary L. Fernald Foster, M.D., Detroit; Speaker K. H. Johnson, M.D., Lansing, were presented and accepted.

- Committee reports were presented by (a) Child Welfare Committee, meeting of December 4, plus meetings of six sub-committees; (b) Committee to Review Problem of Medical Professional Liability, January 29; (c) Medical Care Insurance Committee, January 7; (d) Advisory Committee to Michigan State Medical Assistants Society, December 7; (e) Rheumatic Fever Control Committee, December 10; (f) Tuberculosis Control, December 10; (g) Mental Health, December 17; (h) Postgraduate Medical Education, January 15; (i) Liaison with Health Insurance Council, January 21; (j) Legislative Committee, January 22; (k) Committee to Study Greater Participation in Blue Shield, January 22; (l) Committee on Scientific Work, January 23; (m) Committee on Big Look, January 29.

  Reports of the following committee meetings also were presented to The Council as information: (1) Medical Advisory Committee to Michigan Hospital Service, November 19; (2) North Central District Blood Bank Board of Directors, December 12; (3) Psychiatric Nursing Committee, December 16; (4) Permanent Conference Committee, January 14; (5) Michigan Cancer Coordinating Committee, January 22; (6) Permanent Advisory Committee on Fees, January 20, (a committee of the House of Delegates); and reports on several Councilor District Medical Care Insurance Committee meetings held in various Districts of the state.

- Appointments: (1) Committee to Study AMA Commission on Medical Care Plans Report, as presented to AMA House of Delegates in Minneapolis December, 1959: J. S. DeTar, M.D., Milan (committee of one); (2) Committee on Arrangements for Resident-Interne-Senior Medical Students Conference to be held March 12 in Detroit during MCI: William Bromme, M.D., Detroit, Chairman, Lee Roy Jones, M.D., Detroit, Thomas Scott, M.D., Ann Arbor, R. F. Staudacher, Chicago, C. W. Sellers, M.D., Detroit, and Harvey C. Hallum, Evansville, Indiana (advisor); (3) Added to Committee to Study Feasibility of Greater Participation in Blue Shield: J. M. Wood, M.D., Mt. Pleasant, and J. W. Rice, M.D., Jackson; (4) Planning Committee of Joint Conference on Staphylococcus Infections: E. M. Vardon, M.D., Detroit, Chairman, E. G. Merritt, M.D., Detroit, and J. W. Rice, M.D., Jackson; (5) Added to Committee on Alcoholism: R. H. Pino, M.D., Detroit; (6) Added to Committee on National Defense: E. M. Fugate, M.D., Muskegon and T. I. Boileau, M.D., Birmingham; (7) Added to Committee on Rural Medical Service: Robert E. Paxton, M.D., Fremont; (8) Added to Fourteenth District CDMCIC: Allen Saunders, M.D., Ann Arbor; (9) Added to Special Committee on V.A. Home Town Medical Care Program: L. Gordon Goodrich, Detroit; (10) MSMS nominees to State Committee on Scholarships of the National Foundation: A. J. Day, M.D., Wm. H. Blodgett, M.D. and Frederick J. Fischer, M.D., all of Detroit; (11) MSMS

representative to National Health Forum, Chicago, March 17-19: Sherman E. Andrews, M.D., Kalamazoo.

- Ground breaking ceremony for the new MSMS headquarters building was set for Wednesday, April 1, 1959, at 5:00 p.m. at the site, M-78 (Saginaw Street) and Abbott Road, East Lansing: this ceremony will follow an all day meeting of the Executive Committee of The Council.

- Due to the anticipated great volume of business, The Council recommended to Speaker K. H. Johnson, M.D., Lansing, that an extra meeting of The House of Delegates be held on Sunday evening, September 27, 1959.

- VA Home Town Medical Care program: matters of adjustment in the fee schedule and other problems were referred to the special ad hoc Committee, to Review and Renegotiate the VA Home Town Medical Care Fee Schedule, with power to act. Recommendations of this committee will be reported to the Permanent Advisory Committee on Fees.

- Uniform Fee Schedule for Governmental Agencies: report was presented that the House of Delegates' Permanent Advisory Committee on Fees (Grover C. Penberthy, M.D., Detroit, Chairman) had accepted the action of The Council that the new Uniform Fee Schedule for Governmental Agencies be based upon the existing Michigan Relative Value Scale and those unit values applicable to the $2,500 Plan A M-75 contract.

  The request of the Michigan Society of Internal Medicine that it be consulted before new fee schedules are adopted was referred to the Permanent Advisory Committee on Fees.

- The MSMS Medical Care Insurance Committee (Max L. Licher, M.D., Detroit, Chairman) and its Subcommittee on Relative Value Scale (Luther R. Leader, M.D., Detroit, Chairman) were instructed to develop a Michigan Relative Value Scale as quickly as possible.

SECRETARY'S ANNUAL REPORT—1958

TO: The Council of the Michigan State Medical Society:

I herewith submit the annual report of the Secretary for the year 1958.

MEMBERSHIP

The Michigan State Medical Society membership for 1958 showed a total of 6,638 members including 84 Retired, 311 Life and Emeritus, 377 Associate, 52 Military and 1 non-Resident member. The total paid membership was 5,813 with net dues of $342,775.30. The 1958 membership once again established a new record for the Society. The number of members with unpaid dues for 1958 was 50.

DEATHS DURING 1958

I must regretfully report a total of seventy-one deaths among members during the past year.

Alpena County—Ernest L. Foley, M.D., Alpena

Barry County—Robert B. Harkness, M.D., Kennett Square, Pa.

Bay County—John H. McEwan, M.D., Bay City; George W. Moore, M.D., Bay City; Relza Newton Sherman, M.D., Bradenton Beach, Fla.

Berrien County—Franklyn A. Rice, M.D., Niles.

Calhoun County—Clarence S. Gorsline, M.D., Battle Creek; Charles W. Heald, M.D., Battle Creek; Henry A. Herzer, M.D., Alma; Theodore Kolvoord, M.D., Battle Creek; Archibald E. MacGregor, M.D., Battle Creek; Clarence M. Mercer, M.D., Battle Creek; Frank W. Schwarz, M.D., Battle Creek.

Chippewa County—Clayton Willison, M.D., Sault Ste. Marie.

Genesee County—Sydney I. Foley, M.D., Flint; George W. Logan, M.D., Hastings; Gordon L. Willoughby, M.D., Flint.

Gogebic County—Charles E. Stevens, M.D., Ironwood.

Gratiot County—Lewis J. Burch, M.D., Mt. Pleasant; Russell H. Strange, M.D., Mt. Pleasant.

Ingham County—Charles P. Doyle, M.D., Lansing; Cyrus B. Gardner, M.D., Lansing; Cameron D. Keim, M.D., Lansing; Earl M. McCoy, M.D., Grand Ledge; Claude V. Russell, M.D., Lansing; Andrew G. Stanka, M.D., Grand Ledge.

Ionia County—E. R. Swift, M.D., Lakeview.

Kalamazoo County—U. Sherman Gregg, M.D., Kalamazoo; William E. Shackleton, M.D., Kalamazoo.

Kent County—Charles W. Brayman, M.D., Cedar Springs; Mortimer E. Roberts, M.D., Grand Rapids.

Lapeer County—J. Orville Thomas, M.D., North Branch.

Lenawee County—A. S. Pasternacki, M.D., Adrian

Macomb County—Russell W. Ullrich, M.D., Mt. Clemens.

Marquette County—Celestin LeGolvan, M.D., Marquette; Isaiah Sicotte, M.D., Michigamme.

Menominee County—Henry T. Sethney, M.D., Menominee.

Oakland County—Earl W. Foust, M.D., Royal Oak.

Tuscola County—Frank L. Morris, M.D., Cass City.

Washtenaw County—Aaron R. Edwards, M.D., Ann Arbor.

Wayne County—Frederick E. Baker, M.D., Detroit; Charles S. Ballard, M.D., Detroit; James I. Baltz, M.D., Detroit; Philip H. Broudo, M.D., Detroit; Stanley E. Condon, M.D., Grosse Pointe Woods; John P. Connolly, M.D., Detroit; Russell G. Cushing, M.D., Detroit; James C. Danforth, Sr., M.D., Grosse Pointe Woods; Samuel G. Epstein, M.D., Detroit; Bert U. Estabrook, M.D., Detroit; Ray L. Fellers, M.D., Detroit; Lawrence J. Gravelle, M.D., Detroit; Hugh W. Hendry, M.D., Detroit; Daniel R. Herkimer, M.D., Lincoln Park; S. Lee Hileman, M.D., Ecorse; Alfred E. Hillenbrand, M.D., Detroit; Abraham Koven, M.D., Detroit; Willard D. Mayer, M.D., Detroit; Donald H. McRae, M.D., Detroit; John Ralyea, M.D., Highland Park; Earnest C. Roseborough, M.D., Detroit; Frank W. J. Stafford, M.D., Detroit; Henry B. Steinbach, M.D., Delray Beach, Fla.; Max Steiner, M.D., Detroit; Harry L. Stern, M.D., Detroit; Clarie L. Straith, M.D., Detroit; Hymen A. Vogel, M.D., Garden City; Joseph E. G. Waddington, M.D., Detroit; Roger V. Walker, Jr., M.D., Detroit; Joseph G. Weiss, M.D., Pontiac; Randall A. Whinnery, M.D., Detroit.

ORGANIZATIONAL ACTIVITIES

1958 ANNUAL SESSION

This past year the Annual Session was held in Detroit with a gratifying total attendance of 4,103. This includes 2,339 doctors of medicine, 809 from affiliated groups, 567 exhibitors, 379 guests. The General Assembly type of program was continued, with the innovation of two very successful panels.

A recommendation on this subject follows.

MICHIGAN CLINICAL INSTITUTE

The twelfth Michigan Clinical Institute was held in Detroit, March 19-20-21, 1958. Total registration was 2,988 including 949 from affiliated groups, 216 guests and 397 exhibitors. Again the Operating Room Nurses Conference was held in conjunction with the MCI as well as the Seminar for Residents, Interns and Senior Medical Students. Michigan's Foremost Family Physician, two members of the Michigan State Medical Society serving as presidents of national medical associations, and ten other honorees received special awards for distinguished services to medicine and the people of Michigan at a testimonial luncheon held during the MCI.

ANNUAL SECRETARIES-PUBLIC RELATIONS SEMINAR

In 1958 the County Secretary's-Public Relations Seminar was held on February 1-2 in Detroit and was attended by 210. Seventy-one per cent of the component society secretaries were present.

SECRETARY'S LETTERS

As part of the Society's general educational and informational program for individual members and for component County Societies, during the year 1958 six Secretary's Letters, here issued, three to all members and three to County Society officers. These informational bulletins were in addition to the monthly issues of THE JOURNAL with its scientific articles and informative news items. In addition, ten Legislative Bulletins were issued to keymen during the 1959 Legislative Sessions to keep the membership informed of activities in the State Legislature pertaining to the practice of medicine.

COMMITTEES

Again, time and space preclude the listing in detail of the many activities of all the committees contributing to the splendid programs of the State Society. The accomplishments of the committees of the Society were achieved at the expense of many hours of personal sacrifice on the part of their M.D. personnel. During 1958, a total of 97 meetings were held by our fifty-eight committees. Practically every meeting was covered by your Secretary, Executive Director, or some staff member.

A total of 649 Society members gave freely of their time to attend these meetings and assist in the operational activities of the State Society. Too much commendation cannot be accorded the committee members who contributed generously to develop and execute constructive programs—both scientific and economic for the public welfare and to maintain the position of leadership enjoyed by the Michigan State Medical Society in the field of progressive medical planning.

NEW SERVICES FOR MEMBERS

Upon invitation, MSMS has been sending representatives to other state and national medical and health meetings for a number of years. One advantage to be gained by MSMS is to learn formally from its representatives of any *new* services being rendered by these societies for their members. Properly filtered and recommended, these new activities might be adapted to and adopted by the MSMS. A systematic appraisal, by a special committee, of the values to be gained from attendance at these meetings is indicated.

A recommendation on this subject follows.

FINANCES

An audit of the Society's books covering twelve months was completed by Knostman & Smith as of November 30, 1958. This has been submitted to the Finance Committee for study and is available to any member of the Society for perusal at the Executive Office, 606 Townsend Street, Lansing, Michigan. A brief summary of the audit produces the following information:

Assets		
Cash	$ 56,138.56	
Accounts Receivable	26,747.96	
Investments	246,177.80	
Property & Equipment	124,289.93	
Other Assets	186.41	
Total Assets	$453,540.66	
Liabilities		
Accounts Payable	$ 14,486.92	
Society Equities		
(Reserved for special purposes)		
Public Education Reserve	$ 91,165.25	
Public Education Program	17,677.72	
Public Service Account	5,409.09	CR
Professional Relations Account	2,463.45	CR
Rheumatic Fever Control Program	1,879.18	
Contingent Fund	53,614.34	
Building Maintenance Fund	22,195.41	
New Headquarters Fund	85,373.04	
General Society Equity	175,021.34	
	$439,053.74	
Total Liabilities & Equities	$453,540.66	

THE JOURNAL

The following financial information relative to THE JOURNAL is found in the annual audit report of Knostman & Smith. Income was $134,433.18 which is $23,821.18 over the estimated budget for 1958 (this included $8,526.25 from all allocations of members' dues). Expenses were $135,429.02 which was $7,059.02 over the estimate for 1958. These figures result in a net gain for the year of $9,004.16.

1958 HOUSE OF DELEGATES

The 93rd Annual Session of the Michigan State Medical Society's House of Delegates was held in Detroit, September 28-29-30, 1958.

The House of Delegates:

1. Adopted with thanks the Speaker's remarks; the President's remarks; the President-Elect's remarks; the report of Delegates to the American Medical Association; the report of Woman's Auxiliary to Michigan State Medical Society; the report of the Michigan State Medical Assistants Society; and the Michigan Medical Service report.

2. Approved the Annual Reports of The Council including recommendations (a) to erect a new MSMS headquarters building; (b) to institute a group life insurance plan for MSMS members; and (c) urging members to voluntarily contribute to the American Medical Education Foundation. The Annual and Supplemental Reports of Committees of The Council were approved.

3. Adopted Annual Reports of two House of Delegates Committees: (a) Permanent Advisory Committee on Fees; and (b) Committee on Committees.

4. Adopted Annual Reports of all Standing Committees and of all Special Committees of the Society.

5. Approved the Annual and supplemental Annual Reports of the Medical Care Insurance Committee, as well as the report of the special Auditing Committee on Seal of Assurance which indicated that the total number of participating contracts in force was 3,913.

The Medical Care Insurance Committee, charged with the responsibility of implementing the Statement of Principles on Prepaid Medical Care adopted by the 1957 House of Delegates, recommended the endorsement of the new Michigan Medical Service contract (M-75) as complying in every detail with the MSMS Statement of Principles, which recommendation was approved by the 1958 House of Delegates. Following is an extract from the MCIC Annual Report: "To assure a closer liaison between practicing physicians, Michigan State Medical Society, and the carrier (Blue Shield), MCIC has developed the work and responsibilities of Councilor District Medical Care Insurance Committees as directed by the Statement of Principles. These local committees have been appointed by The Council and their activity during the coming year will be coordinated with the work of the MSMS Medical Care Insurance Committee. By this and others means, a continuing review of the Seal of Assurance Plan will be made and a direct line of communication established from the individual Doctor of Medicine to the MCIC, the Permanent Advisory Committee on Fees, and The Council." The Delegates are to be informed quarterly of the progress made by the mechanism set up and in operation for the instrumentation of the program.

The MCIC was directed to develop the Michigan Relative Value Scale. The MCIC recommended that presentations of its Supplemental Report (published in toto in December Number, JMSMS), illustrated by slides, be made available to all component societies.

On the subject of payment, of non-participating physicians: the House of Delegates adopted a substitute motion which stated:

"That recompense for services rendered to a patient under Michigan Medical Service contracts continue to be the same, whether the physician is participating or non-participating. The participating physician will be paid directly by Michigan Medical Service. The non-participating physician will also be paid by Michigan Medical Service upon obtaining an assignment from his patient.

"That because the problem of direct payment to non-participating physicians for services rendered to subscribers involves complex questions of law and equally complex questions pertaining to the honoring of existing contracts and contract offerings by Michigan Medical Service, a complete study of alternate methods of payment for services rendered by non-participating physicians be undertaken by the Medical Care Insurance Committee in conjunction with Legal Counsel for MSMS, and that such study be diligently pursued; and that as soon as the Committee is able to submit its findings based upon such study, its findings and recommendations shall be submitted to the next regular or a special meeting of the House of Delegates called for that purpose."

The House of Delegates requested the governing body of Michigan Medical Service, and of any other approved carrier, that lists of participating physicians shall not be published or otherwise disseminated. The House of Delegates adopted a resolution that the problem of the care of mental illness as a benefit under Michigan Medical Service and Michigan Hospital Service contracts be called to the attention of the Board of Directors of MMS and MHS for their careful consideration.

The Permanent Advisory Committee on Fees (of the House of Delegates) was instructed to work with The Council when the House was not in session, and all decisions of The Council regarding fees are to be reported to the Permanent Advisory Committee on Fees. Further, all minutes of proceedings of all committees dealing with fees and fee schedules are to be referred to and made available to the Permanent Advisory Committee on Fees promptly.

6. Adopted resolutions concerning: (a) fund raising —approved federated or otherwise; (b) alphabetical listing of members; (c) no objection to sponsorship of AAPS essay contest; (d) poll of members on Social Security; (e) distribution of free polio vaccine to medically indigent; (f) proposed legislation for control of medical staff in public hospitals; (g) creating study committee on alcoholism; (h) no House of Delegates meeting to be held on Sunday, unless necessary; (i) proposed law to regulate operation of ambulances; (j) greater interest in diabetes detection; (k) resolutions expressing appreciation to retiring AMA Delegate W. H. Huron, M.D., Iron Mountain, to retiring Councilor J. F. Beer, M.D., St. Clair, and to Michigan Office of Civil Defense Director Ralph M. Sheehan and his staff.

7. Took favorable action on proposal to amend the Bylaws (Chapter 5, Section 6) clarifying Life Membership qualifications.

8. Took no action on the following proposals: (a) Two-thirds membership vote shall constitute favorable referendum of MSMS; (b) repeal of Statement of Principles covering Blue Shield contract; (c) termination of sale of Blue Shield M-75 contract; (d) suspension of sale of Blue Shield M-75 contract; (e) rules of conduct for physicians in closed panel practice; (f) re-affirming Statement of Principles of 1957 House of Delegates.

9. Disapproved the following resolutions: re (a) medical representation when management-labor negotiates medical services; (b) study of method to allot proportional units when medical service is provided by more than one physician; (c) responsibility for treatment of diabetes mellitus; (d) one full day for reference committee meetings of House of Delegates; (e) proposed amendment to Bylaws, Chapter 16, Section 1, re date of suspension for nonpayment of dues; (f) proposed amendment to Bylaws, Chapter 5, Section 4 and 6, re Special Memberships; (g) proposed amendments to Bylaws, Chapter 12, Section 1, re term of Councilors— a study committee on this subject was recommended.

The sponsor of a resolution recommending that members of Blue Shield Board of Directors be representative of MSMS Councilor Districts was referred to Michigan Medical Service.

10. Elected the following officers:

(a) C. N. Hoyt, M.D., Port Huron, as Councilor, 7th District (1962).
(b) W. M. LeFevre, M.D., Muskegon, as Councilor, 11th District (1963)
(c) B. T. Montgomery, M.D., Sault Ste. Marie, as Councilor, 12th District (1963).
(d) T. P. Wickliffe, M.D., Calumet, as Councilor, 13th District (1963).
(e) W. W. Babcock, M.D., Detroit, as Councilor, 17th District (1963).
(f) R. L. Novy, M.D. (1960), W. D. Barrett, M.D. (1960), both of Detroit, and G. W. Slagle, M.D. (1960), Battle Creek, as Delegates to the American Medical Association.

(g) Luther R. Leader, M.D., Detroit (1960); Wm. Bromme, M.D., Detroit (1960), and Ralph W. Shook, M.D., Kalamazoo (1960), as Alternate Delegates to the American Medical Association.

(h) Milton A. Darling, M.D., Detroit, as President-Elect.

(i) K. H. Johnson, M.D., Lansing, as Speaker of the House of Delegates.

(j) J. J. Lightbody, M.D., Detroit, as Vice-Speaker of the House of Delegates.

11. Elected Fred J. Drolett, M.D., Lansing, as Michigan's Foremost Family Physician for 1958.

12. (a) Selected R. W. Pomeroy, M.D., Lansing, as Michigan's nominee for President's Award on Employment of Physically Handicapped; (b) Presented Fifty Year Awards to:

William J. Cassidy, M.D., Detroit; Wayne A. Cochrane, M.D., Jackson; Fred H. Cole, M.D., Detroit; Clayton J. Ettinger, M.D., Detroit; Samuel Glassman, M.D., Detroit; Bernard H. Glenn, M.D., Fowlerville; Lloyd W. Howe, M.D., Marquette; Mark Marshall, M.D., Ann Arbor; J. Earl McIntyre, M.D., Lansing; Harriet E. McLane, M.D., Detroit; Daniel J. O'Brien, M.D., Lapeer; J. M. Robb, M.D., Detroit; Susanne M. Sanderson, M.D., Detroit; Leal K. Slote, M.D., St. Joseph; Andrew L. Swinton, M.D., Marquette; Henry L. Ulbrich, M.D., Grosse Pointe Woods; and Paul Van Riper, M.D., Champion.

13. Elected to Special Memberships:

(a) *Forty-two to Life Membership*—Alpena County: Harry J. Burkholder, M.D.; Genesee County: Arthur C. Blakeley, M.D., Leon M. Bogart, M.D., Guy D. Briggs, M.D., Edwin G. Dimond, M.D., Roy A. McGarry, M.D., Ira D. Odle, M.D., William W. Stevenson, M.D., George D. Sutton, M.D., Grant Thorburn, M.D., Inga W. Werness, M.D.; Jackson County: Corwin S. Clarke, M.D., W. B. Huntley, M.D.; Kent County: Jacob D. Mulder, M.D.; Muskegon County: Martha Goltz, M.D., Vilda S. Laurin, M.D.; Northern Michigan Counties: James R. Stringham, M.D.; St. Clair County: T. H. Cooper, M.D.; Shiawassee County: Carleton A. Harkness, M.D.; Washtenaw County: Margaret Bell, M.D.; Wayne County; Mary B. Campbell, M.D., James A. J. Hall, M.D., Frederik E. Hansen, M.D., Arthur B. Henderson, M.D., Thomas G. Amos, M.D., Glenn B. Carpenter, M.D., Lona B. Carroll, M.D., Albert E. Catherwood, M.D., Thomas P. Clifford, M.D., Margarete W. Coleman, M.D., L. C. M. Conley, M.D., Harry F. Dibble, M.D., Raymond S. Goux, M.D., Leo E. Grajewski, M.D., Robert I. Greenridge, M.D., Daniel J. Leithauser, M.D., Leon E. Pangburn, M.D., Alvord R. Sanderson, M.D., Ward F. Seeley, M.D., F. Janney Smith, M.D., Viola M. Young, M.D.; Wexford County: W. J. Smith, M.D.

(b) *Fifteen to Retired Membership*—Bay County: Walter S. Stinson, M.D.; Ingham County: Robert S. Breakey, M.D.; Saginaw County: E. G. Schaiberger, M.D.; Muskegon County: A. W. Mulligan, M.D.; Wayne County: Harvey S. Broderson, M.D., Schuyler O. Cotton, M.D., Hugo O. Dietzel, M.D., Arthur L. Higbee, M.D., Hartman A. Lichtwardt, M.D., Walter E. McGillicuddy, M.D., John McKinnon, M.D., Julius Michels, M.D., Charles W. Peabody, M.D., Loren W. Shaffer, M.D., and Alexander M. Stirling, M.D.

(c) *Twenty-two to Associate Membership*—Oakland County: Dorothy M. Goerner, M.D., Edwin S. Peeke, M.D.; Saginaw County: Raymond W. Dowidat, M.D., Robert D. Rector, M.D., James G. Kidd, M.D., Randall S. Derifield, M.D., Russell E. Pleune, M.D.; Wayne County: Dorothy Caton, M.D., Daniel Donovan, M.D., L. E. Kamin, M.D., Harry Kirschbaum, M.D., Frances L. MacCracken, M.D., Louis J. Morand, M.D., Harold Ohrt, M.D., Eugene Secord, M.D., Gerald Shortz, M.D., Mary Stellhorn, M.D., Carl G. Weltman, M.D., Leslie Wilcox, M.D., Abraham R. Lincoln, M.D., Vincent Mancuso, M.D.; Muskegon County: E. V. Williams, M.D.

OTHER ORGANIZATIONAL ACTIVITIES

MICHIGAN MEDICAL SERVICE

Financial.—Final figures for the year 1958 are not available as of this date. The Tentative Balance Sheet as of November 30 indicates:

	1958	*1957*
Assets of	$11,379,952.68	$13,840,030.79
Liabilities of	10,651,805.37	10,632,501.50
Reserve for Contingencies	$ 728,147.31	$ 3,207,529.29

The Assets as of December 31, 1957 were $14,291,642.56 or a decrease for the eleven months of $911,689.88.

The Reserve for Contingencies as of December 31, 1957 was $4,236,991.35 or a reduction of the Reserve for the eleven months of 1958 of $3,508,844.04.

	11 Months 1958	*11 Months 1957*
Loss from Operations	$3,802,761.09	$2,919,402.54
Miscellaneous Income (Gain)	(7,107.82)	(18,690.90)
Investment Income (Gain)	(286,809.23)	(295,928.33)
Total Loss	$3,508,844.04	$2,604,783.31

It is estimated that the subscription fee income for the year 1958 will be as follows:

Estimate of subscription fee income for 1958	$49,102,000.00
VA Fees and expense reimbursement	1,089,000.00
Medicare Fees and expense reimbursement	935,000.00
	$51,126,000.00
Payments for services rendered subscribers for the year 1958 will be approximately	$49,062,000.00
For Veterans	1,057,000.00
Medicare	915,000.00
Estimated Total Payments	$51,034,000.00

This is an average per month of $4,252,830.00 as compared with $3,776,315.00 in 1957.

The dollar of subscription income is divided approximately in cents as follows:

	1958	*1957*	*1956*	*1955*	*1954*
Services to Subscribers	99.93c	98.54c	97.78c	91.34c	90.66c
Administration Expense	8.52	8.48	7.80	8.68	8.83
Reserve for Contingencies (loss)	(8.45)	(7.02)	(5.58)	(.02)	.51

The decrease in reserve for contingencies of $3,508,844.04 for the eleven months of 1958 resulted from increase in services under all contracts.

Subscription rates were increased overall by 12% effective October 1, 1957. It was anticipated that this increase would be sufficient to put the old $2,500 and $5,000 contracts on a satisfactory basis. It was also thought that the new M-75 plan contracts would be effective early in 1958. Due to decreased employment and an increase in utilization plus that fact that the M-75 Plans were not offered to the public until August 1, 1958, the financial relief anticipated did not result.

Subscription rates for the old $2,500 and $5,000 contracts were increased January 1, 1959 by an overall of 12.8%. The increase on these contracts should put them on a sustaining basis. We are assured by our own statisticians and actuaries that the rates for the M-75 program are actuarially sound.

Payment for Services.—There is an increase in incidence of service for the first six months of 1958 as compared to the first six month period of the previous years as shown. Services per 1,000 subscribers are as follows:

	1958	*1957*	*1956*	*1955*	*1954*
First six months	30.17	28.46	26.70	23.93	22.94
Average cost per service is as follows:					
First six months	$32.45	$35.69	$35.36	$32.74	$33.25

The increase in incidence of services for the first six months of 1958 as compared to the same period of 1957 appears to have been caused by a greater utilization of

all services under all types of contracts. The average cost of services, however, decreased in 1958; and this decrease to some extent, is due to the Office Surgery Liberalization effective October 1, 1957.

During the first eleven months of 1958 payments were made for 1,383,526 services under our basic contracts. In addition, there were 107,132 payments made under the X-Ray EKG Rider as well as 15 payments under the 245 Day Medical Rider.

Enrollment.—November 30, 1958 statistics indicate 3,560,059 persons were protected by Blue Shield in Michigan.

These persons were protected under the several different types of contracts issued by Michigan Medical Service. The following table shows the distribution:

	Members
$2,500 Family Income Certificate	
Surgical	374,593
Medical-Surgical	1,038,040
Total	1,412,633
$5,000 Family Income Certificate	
Surgical	359,082
Medical-Surgical	1,737,240
Total	2,096,322
M-75 Certificates	
Plan A	4,178
Plan B	22,551
Plan C & D	24,375
Total	51,104
Grand Total	3,560,059

The Enrollment Division has been pursuing a diligent program of converting all existing members to the new M-75 series. A recent study indicates that as of mid January, 1959, there are approximately 1,150,000 people in Michigan who are now protected by benefits under this series of certificates. Each working day, additional members are converted from the old series to the new and all new groups not heretofore enrolled are being offered only the M-75 certificates. The impact of 1,150,000 people was brought about primarily when the Big Three of the motors industry accepted the benefits of the M-75 series effective January 1 of 1959.

The acceptance of the Michigan State Medical Society's new approach to the manner of covering medical care has not only been accepted by General Motors, Ford and Chrysler, but is equally true of other employer groups and their employes as indicated in the following example: United States Post Office—Clark Equipment Company—Grand Trunk Western Railway—Eaton Manufacturing Company—Reo Motors—Ethyl Corporation —Kelsey-Hayes Company—Battle Creek Board of Education—Michigan State Department of Revenue.

Professional Relations Activities for 1958.—The year 1958 was the most active period experienced by the Professional Relations Staff of Michigan Medical Service. Communicating M-75 policy decisions of the Michigan State Medical Society and of the Board of Directors of Michigan Medical Service to the physicians of Michigan demanded many extra hours of each staff member in attending various hospital staff, county society and other medical group meetings. The year's experience proved that face-to-face discussion is the most effective method of communication—and was used at every opportunity. The results of this effort were more than gratifying as the number of M-75 participating doctors will show. (432 participants obtained through personal contact by staff.)

From the time the 1957 House of Delegates concluded its work on establishing the Principles for prepayment medical care plans, the Michigan Medical Service staff initiated meetings with every conceivable group of physicians for the purpose of explaining the basis on which a new Blue Shield contract would be constructed. More than 225 such meetings were held prior to the beginning of the MSMS "Seal of Assurance" campaign in June of 1958. The campaign inspired several repeat performances as well as meetings with physician groups not contacted previously. Staff members also participated actively in the Councilor District Conferences of the MSMS which acted as "kick off" meetings for the campaign.

Since the principal concern of the Profesisonal Relations Staff is to desseminate Blue Shield and medical economics information to Michigan doctors through personal contact, it is our duty to see that the staff becomes as well informed as possible in this regard. Besides the numerous information reports and trade publications sent to them for study, each staff member is required to attend the MSMS Secretary's Conference in Detroit, the regular and special open meetings of the MSMS House of Delegates, the Annual meeting of the Michigan Medical Service Corporation and the educational programs put on by the Blue Cross-Blue Shield Enrollment Division. On an alternating basis, half of the Staff goes each year to the National Blue Shield Professional Relations Conference in Chicago. Also, during 1958, all representatives attended three separate meetings devoted entirely to staff activity, as it is constituted here in Michigan.

Other activities included exhibiting at the MSMS Annual Session, the Michigan Clinical Institute, the Annual Conference of the Michigan Academy of General Practice and the Annual meeting of the Upper Peninsula Medical Society. The regular attendance of representatives at County Medical Society monthly meetings was extended to 44 Societies out of the total of 55 in the State.

This year as in previous years, the Wayne County Medical Advisory Committee adjudicated fees for approximately 2,200 cases of complex and unusual nature. The Kent County Medical Advisory Committee, established two years ago, determined fees for approximately 500 cases of a similar nature. The Kent County group met 10 times during the year and the Wayne County Committee met 23 times.

In January, 1958, the physicians of Michigan were introduced to a new media of communication from Michigan Medical Service. *The President's Letter,* a monthly publication of pertinent data and trends in medical economics, is now one year old. This Letter has received praise from doctors in all corners of the State. The value of the Letter is indicated each month by the correspondence that comes in after each mailing. Most noticeable are the letters, stating opinions or asking questions about the latest issue, which come from doctors we have rarely, if ever, heard from in the past. The Letter is designed to be brief, to the point and informative on subjects the average physician wants to know more about. It is not, however, the intent of Michigan Medical Service to publish this Letter just to meet the monthly deadline. If there is no news, report or explanation worthy of distributing, publication will be postponed until there is something to be said. So far, events centered around M-75, the Forand Bill, problems of other Blue Shield Plans, etc., have supplied ample material for discussion.

A Professional Relations activity which will take on a new, accelerated approach in 1959 is the activity with the Medical Assistant Societies and other group meetings of doctor's office personnel. Tentative plans call for an extensive educational program on the administration of M-75 from the point of view of the doctor's office. Where the Assistants' Society is inadequate to obtain the exposure desired, invitations to Medical Assistants to attend meetings will be made through hospital staffs and county medical societies.

Following, in tabulated form, are reports on: "Record of Activity of the Professional Relations Staff During 1958," and "Record of New Participation Obtained in 1958 by Michigan Medical Service Staff."

I. *RECORD OF ACTIVITY OF THE PROFESSIONAL RELATIONS STAFF DURING 1958*

Doctor Contacts:	
In offices	9,131
At Cloakrooms of Hospitals	6,353
At Meetings	8,600
Miscellaneous	3,050
Doctor Meetings Attended:	
Hospital Cloakroom	780
Hospital Staff	228
County Society	240
Specialty Society	25
Doctor Assistants Contacts:	
In Doctors' Offices	2,545
Number of Assistant Society Meetings Attended	31
Other Contacts by Staff:	
Clinics	190
Hospital Administration and Credit Offices	1,118
BC-BS Enrollment Meetings	32
BC-BS District Offices	1,468

II. *RECORD OF NEW PARTICIPATION OBTAINED IN 1958 BY MMS STAFF*

A.	Participation increase in the $2,500 and $5,000 contracts:		
	1. New doctors entering practice	279	
	New doctors signing participation agreements	76	
	2. Doctors already practicing who signed agreements	66	
	3. Doctors who re-entered practice who signed agreements	21	
	Total additional participating agreements ($2,500 & $5,000 contracts)	163	
B.	Loss in $2,500 and $5,000 contract participation due to		
	1. Left State	75	
	2. Retired	13	
	3. Deceased	71	
	4. Moved, whereabouts unknown	99	
	5. Military Service	8	
	6. Resigned	41	
	Total loss of participating agreements		307
	Net gain (loss) in $2,500 & $5,000 contract participation		(144)
C.	M-75 participation obtained by personal contact MMS Staff (This is supplemental to the results of the 1958 Seal of Assurance campaign of the Michigan State Medical Society)		432
D.	Total participation obtained by MMS Staff—all contracts		595

Medicare.—The year 1958 has been one of great change in respect to the care of servicemen's dependents. Where frequent changes occur there is bound to be a certain degree of confusion and misunderstanding, especially in a program of this nature. It seems as though we were barely through advising the profession of a change when another development was upon us. We regret that a more stable situation could not be presented. However, the Department of Defense was severely "put to task" by the Congress in meeting their requirements especially concerning the budget. The resulting modifications were passed along to each Contractor who in turn was required to report them to the profession.

Step by step, the story goes like this:

February 1, 1958	—No longer pay separate benefit for office urinalysis by obstetrician.
March 10, 1958	—To Washington for new contract negotiations.
April 1, 1958	—New contract approved by Council in effect with new higher schedule of benefits based on a relative value system. Minor revisions in coverage and administration.
July 1, 1958	—No longer pay for orally administered drugs in OB cases—only injectable drugs now covered.
August 8, 1958	—Emergency conference of Plan Directors in Washington to discuss drastic cut-back ordered by Congress.
September 15, 1958	—Preliminary announcement and outline of changes effective October 1, 1958 to all physicians in event State Society ratifies new revised contract.
October 1, 1958	—Ratified revisions officially put into effect.
Present	—Consolidation of position under October 1, 1958 revisions. Still much misunderstanding and confusion regarding coverage and administration of claims. No further changes forcseen but Congress could decide to cut-back further or possibly even reinstate part of the former broader program.

October 1, 1958 saw the freedom of choice of physician revoked from the patient in those cases wherein patient and sponsor (serviceman) resided together. For all eligible dependents, coverage was reduced in several important areas:

1. Office or out-patient care of any condition except obstetrical cases.
2. Referring physicians termination office visit.
3. Office or out-patient pre and post surgical (or accident) tests and procedures.
4. Neonatal (pediatric) office or out-patient visits.
5. Treatment of acute emotional disorders except if treatment is concurrent with treatment for some other eligible condition.
6. Elective (planable) surgery.

Eligible care now consists of only the following:

1. Complete obstetrical care in or out of the hospital. (No change from old regulations.)
2. Treatment of *acute* surgical conditions *requiring* hospitalization.
3. Treatment of *acute* medical conditions *requiring* hospitalization.

Statistically, for the eleven months ending November 30, 1958 we show steady growth in services paid. We averaged 937 paid claims per month (total per year 10,311) amounting to $73,751.61 per month, total paid to doctors $811,167.71. Average value of each paid claim was $78.68. We anticipate a drop in excess of 40% of paid claims when the full effect of the October 1, 1958 revisions is felt. Michigan Medical Service administrative expense for the eleven months was $17,-997.64

Veterans Hometown Care Program.—A few changes were introduced with the renewal of the Veterans Hometown Care Program contract, between Michigan Medical Service and the Veterans Administration, for the fiscal year commencing July 1, 1958. The most important was a new fee schedule governing out-patient care rendered eligible veterans. This fee schedule was negotiated by a special committee of the Michigan State Medical Society. Many fees were increased; the most common being routine office calls going from three to four dollars. Next, the entire service code structure was altered to conform to the nation-wide service code system used by the Veterans Administration. Another significant change in the contract eliminated the need for the doctors to sign the invoices. However, the treating physician's name must be on the invoice for payment purposes. Services rendered eligible veterans may be billed to Michigan Medical Service on the physician's own letterhead if the Veterans Administration invoice form is not available. Concurrent with authorizations being issued directly by the Veterans Administration came a few administrative changes in the authorizing procedure. Instead of sending initial authorizations to the veteran as in the past, he must now give to the Veterans Administration the name of the doctor, from whom he intends to seek treatment. If the named doctor is already participating with the Veterans Hometown Care Program the authorization is granted. If the doctor is not participating, the Veterans Administration will not grant the veteran's request for authorization until the doctor has been contacted and advised of the veteran's desire to be treated and at the same time is requested to register. Should the veteran require immediate treatment he will either be given the name of several participating doctors from whom he may choose, or be treated at the Veterans Administration during the interim. Another important change introduced is that specialist office treatment is not authorized unless it is known ahead of time that the intended treating physician is a specialist.

The volume of authorizations held quite steady, averaging between 4,500 and 5,500 per month, although the number of visits per authorization was reduced con-

siderably. This was accomplished by the excellent co-operation on the part of the fee-basis physician when told by the Veterans Administration that funds were short and that all authorizations would have to be held to the veterans absolute needs.

Payments to doctors for the eleven months ending November 30, 1958 amounted to $989,094.05 and Michigan Medical Service expense was $31,362.27 or 3.58% of the payments.

January 22, 1959 we received two letters from Regional Office of Veterans Administration. The first letter requests that the administrative procedures be changed so that the quarterly treatment report and the invoice for services be sent direct to the Veterans Administration. After Veterans Administration approves and sends Michigan Medical Service the funds, Michigan Medical Service would then pay the doctor. The payment of the doctor would be about all that Michigan Medical Service would do. The second letter objects to the fee schedule for the year 1959-60 effective July 1, 1959. Both of these letters have been referred to The Council of Michigan State Medical Society.

L. Fernald Foster, M.D.
President, Michigan Medical Service

BLUE SHIELD FACT SHEET

September 30, 1958

I. Total Blue Shield membership.....41,723,726

II. Blue Shield Members in United States, Puerto Rico and Hawaii 39,747,063
Per Cent of total population in United States, Puerto Rico and Hawaii 23.21

III. Blue Shield Members in Canada 1,976,663
Per Cent of total population in Canada enrolled in Blue Shield 11.92

IV. States in which more than 40 per cent of the population are Blue Shield members:

State	*Per Cent*
District of Columbia	63.17
Delaware	58.56
Connecticut	47.51
Michigan	44.74
New York	42.56
Massachusetts	42.00

States in which 20 per cent to 40 per cent of the population are Blue Shield members:

State	*Per Cent*	*State*	*Per Cent*
New Hampshire-Vermont	38.51	Kansas	25.22
Pennsylvania	35.11	Ohio	24.59
Colorado	33.29	Maine	23.37
New Jersey	32.07	Iowa	21.79
Indiana	28.71	Alabama	21.77
Hawaii	27.87	Missouri	21.46
Minnesota	26.48	Tennessee	20.92
North Dakota	26.24	Wisconsin	20.91
		Illinois	20.81

Per Cent of population enrolled in Blue Shield in areas served by Canadian Plans:

Provine	*Per Cent*	*Provine*	*Per Cent*
Manitoba	34.82	Ontario	14.57
Saskatoon	28.55	Maritime Prov.	13.40
British Columbia	28.04		

V. Growth of Blue Shield Medical Care Plans:

December 31	*Total Members*
1946	1,826,719
1947	5,791,175
1948	8,911,225
1949	12,260,045
1950	16,629,596
1951	21,130,996
1952	24,670,701
1953	28,183,708
1954	31,590,474
1955	35,725,533
1956	38,802,846
1957	41,479,053
September 30	
1958	41,723,726

Blue Shield Medical Care Plans are now in operation in 43 of the 48 states, in the District of Columbia, in eight Canadian Provinces, and in the Territories of Puerto Rico and Hawaii. The direct writings of Medical Indemnity of America, Inc., are also included.

VI. Percentage Distribution of Total Income Dollar:

Reporting Plans	*Claims Expense*	*Operating Expense*	*Reserve Funds*
1947—45 Plans	78.24	15.60	6.16
1948—57 Plans	77.19	14.26	8.55
1949—61 Plans	78.99	13.88	7.13
1950—68 Plans	78.51	13.05	8.44
1951—75 Plans	79.63	12.39	7.98
1952—75 Plans	79.32	11.89	8.79
1953—76 Plans	80.30	11.24	8.46
1954—76 Plans	81.15	11.10	7.75
1955—75 Plans	82.75	10.63	6.62
1956—72 Plans	86.06	10.47	3.47
1957—73 Plans	86.97	10.28	2.75
First Nine Months			
1958—72 Plans	89.67	10.02	.31

VII. Payments to Doctors and Operating Expenses of Blue Shield Plans:

Year	*Payments to Doctors*	*% of Total Earned Sub. Income*	*Operating Expense*	*% of Total Earned Sub. Income*
1956 United Stats, Puerto Rico and Hawaii	$407,350,023	86.56	$50,702,153	10.77
Canada	31,237,425	93.41	2,647,650	7.92
Total	438,587,448	87.02	53,349,803	10.58
1957 United States, Puerto Rico and Hawaii	$473,490,046	87.57	$57,201,539	10.58
Canada	37,472,883	93.89	3,220,035	8.07
Total	510,962,929	88.00	60,421,574	10.41
First Nine Months				
1958 United States Puerto Rico and Hawaii	$397,719,044	90.40	$45,281,248	10.29
Canada	31,938,515	96.98	2,727,846	8.28
Total	429,657,559	90.86	48,009,094	10.15

VIII. Miscellaneous Facts:
1. 10,495 persons joined Blue Shield each working day during 1957.
2. 2,676,207 persons became Blue Shield members during 1957.

IX. Section D—Financial Reports of Blue Shield Plans. First nine months of 1958

VETERAN'S CARE PROGRAM

Reported as of September 30, 1958 by Six Plans to the Blue Shield Medical Care Plans.

Headquarters City	*Fees Earned*	*Payment to Physicians*	*Operating Expense*	*Operating Expense %*
San Francisco, Cal.†	$15,756,794	$14,719,007	$1,037,787	7.1
Denver, Colo.	37,364	33,893	3,471	10.2
Detroit, Mich.	1,462,251	1,418,717	43,534	3.1
Chapel Hill, N. C.	158,948	144,065	14,883	10.3
Portland, Ore.†	55,813	53,115	2,698	5.1
Honolulu, Hawaii†	42,241	40,333	1,908	4.7
Total 6 Plans	$17,513,411	$16,409,130	$1,104,281	6.7

†Plans not affiliated with Blue Cross.
Includes direct writing of HSI-MIA

PUBLIC RELATIONS

During 1958, our Public Relations activities divided roughly into ten areas of endeavor:

1. Seal of Assurance Information Program. At the request of The Council and under the direction of the Seal of Assurance Committee, the MSMS public relations activity helped to inform our members of the new developments in medical care coverage based upon the 1957 House of Delegates action. Culminating the intensive information program in this complex subject, the best efforts of MSMS were used to obtain participation of its members as was required by House of Delegates action.

2. Hospital Visitation Program in Wayne County. Because of the unique problems in reaching the membership of this largest county medical society, MSMS and Wayne jointly have sponsored a hospital visitation program. In 1958, twenty-eight hospital staffs were visited by officers of both societies, to discuss new developments and obtain the views and suggestions of the membership on the organizational aspects of medicine.

3. Motion Pictures. As a tribute to the members of the Wayne County Medical Society, MSMS authorized and produced a documentary film of the transition of

the WCMS from the old to the magnificent new David Whitney House. The film was supervised by a committee of Wayne County doctors under the chairmanship of W. B. Harm, M.D., and was first shown at the new headquarters dedication ceremonies. Subsequently, the film has been shown to hospital staffs as part of the visitation program.

4. Press Relations. Although not every story concerning individual doctors of medicine was "perfect" public relations, it can be said that the activities and goals of medicine generally were related to the public in a fair and understanding manner.

To further the rapport between medicine and the press, MSMS this year adopted a Media Code and is encouraging County Medical Societies to adopt the Code to help the individual practitioner and the reporter do a better job of telling medical stories within the framework of medical ethics.

5. Public Relations Library. During the past year, the library's facilities have been increasingly utilized. The Public Relations Committee is now absorbed in publishing the MSMS Public Relations Library Catalogue which will be distributed to each of our members. We believe that this will stimulate the use of the valuable information and ideas which the library now contains.

6. Radio—Television. The public's reception of MSMS two major efforts in television this year was overwhelming. During the Michigan Clinical Institute, the public colorcast of an aortic transplant was carried by a state-wide network of TV stations—the first time in the nation that this was done. In conjunction with the Annual Session, MSMS in cooperation with the Michigan Health Council produced "The Family Doctor," an hour-long spectacular, through the facilities of WJBK-TV, Detroit. This special show was widely acclaimed.

In cooperation with component county medical societies, MSMS continues to distribute to 40 Michigan radio stations a 15-minute transcribed health series and our own "Tell Me, Doctor" transcriptions which were brought up to date last year.

7. Science Fairs. There is increasing interest in Science Fairs throughout the nation and Michigan was in the forefront in 1958. With the National Science Fair held in Flint, an opportunity was provided for Genesee County Medical Society to participate in this worthwhile project. Other localities also produced their own local fairs including the Detroit Metropolitan Science Fair in which Wayne County Medical Society and neighboring societies participated. MSMS has stimulated increased interest in future science fairs as well.

8. Exhibits. In an expanded program of health exhibitions, the public relations staff, in cooperation with the county medical societies, exhibited at the Michgan State Fair, the Saginaw County Fair, and the Ionia Free Fair. Cooperating in manning the booths were the Woman's Auxiliary and the Medical Assistants.

9. Annual Session—Michigan Clinical Institute. Working through press committees at both sessions, the science reporters found an unusual amount of interesting medical news. MSMS took this opportunity to tell a story to the public at various luncheon clubs. During the MCI, this year more non-scientific talks were given by doctors to public groups than scientific essays were presented on the MCI program itself!

10. Pamphlet and Editorial. Public Relations should be congratulated for the high quality of the many printed pieces which are produced by MSMS each year, including various programs of activities associated with our annual meetings and MCI as well as writings in the JMSMS and production of The Auxilium for the Woman's Auxiliary.

It can be concluded that Public Relations activity and interest has penetrated many facets of our organizational activity. This is as it should be, for everything that we do requires communication and all things done in medicine have their effect on the public's health and the public's opinion. We see in our P.R. program a very well-rounded effort that needs continued hard work on the part of members and staff to maintain.

LEGISLATION

Most members of our profession realize that we must be more than just healers, we must also be citizens of our community; and that when the best interests of our patients require our participation in politics and in the legislative activities in Lansing and Washington, we willingly accept our responsibilities.

The extent to which we arise to this continuing challenge is well documented in every report of our Legislative Committee.

One example from the last session of the Michigan Legislature bears noting: The Michigan State Medical Society was instrumental in the amending of the County Hospital Act of 1913, to provide the boards of trustees of seven public hospitals with supervisory powers over the professional work in their hospitals. We can take satisfaction in knowing that our efforts will result in a better standard of health care in those institutions.

A total of 100 bills, each having a direct bearing upon the practice of medicine, was introduced in the last session of the Michigan Legislature. It should be noted that no legislation detrimental to the public (in the field of health) was enacted in 1958.

Now as another legislative session begins, we must realize that medicine as we know it is under assault on both the state and national level. If we are to continue to be able to make our advices effective it is vital that our membership be more aware of their responsibilities to legislators and congressmen in their home communities.

AWARDS

As in past years, the Awards Committee has carried out its duties well. However, for some time it has been our feeling that both MSMS members and staff should be formally recognized for valued service to the MSMS over the years and that this should be systematized and not be left to inspirational happenstance.

A recommendation on this subject follows.

Your Secretary is grateful for the helpful co-operation given him by his Council during the past year.

Too much commendation cannot be accorded the Executive Office staff for their untiring efforts and loyalty to the Michigan State Medical Society.

Your Secretary is especially appreciative of the constructive advice and services accorded him by William J. Burns, Executive Director, Mr. Dodd, Legal Counsel, Hugh Brenneman, Public Relations Counsel and his staff, Wilfrid Haughey, M.D., Editor, and Robert Roney, Assistant Executive Director. Our field secretaries did an unusual job in their legislative activities.

To everyone who has aided so generously and willingly in the discharge of his duties, your Secretary is most grateful.

RECOMMENDATIONS

After a careful consideration of the continued successful operation of the MSMS and its many projects, I respectfully submit the following recommendations:

1. That recommendation be offered the Committee on Scientific Work that it develop a complete panel-type program for the 1960 Annual Session in Detroit; and for this purpose, that preliminary arrangements be inaugurated in early 1959—and that the idea be conveyed to the Sections, in order to achieve the continuity necessary to accomplish this project, that they re-elect their present officers for another year, wherever possible.

2. That a Research Committee on Organizational Services be formed, to investigate and evaluate *new* activities presently rendered by other societies to their memberships, and to make recommendations to The Council for desirable and practical additions to the MSMS roster of services.

3. That a system of awards for years of service to MSMS, by either members or staff, be developed and implemented.

Respectfully submitted
L. Fernald Foster, M.D.
Secretary

EDITOR'S ANNUAL REPORT—1958

Volume 57 of The Journal of the Michigan State Medical Society has been completed. The Journal was established in October, 1902, by Andrew P. Biddle, M.D., who was the Secretary of the State Medical Society. There had been a number of medical journals published in the state of Michigan, small and short-lived, but filling a useful place, sporadically bringing to the membership the latest medical news and medical scientific papers. Since its inception, the State Medical Society had been publishing each year what was termed "Transactions," distributing them to its membership. These were bound books containing papers presented at the annual meetings.

In 1902, the State Medical Society underwent a very radical reorganization establishing itself as a representative body being administered by its executive officers, The Council and a House of Delegates which was selected by each component County Medical Society on the basis of one delegate for each society and an extra delegate for the second fifty members or major fraction. All societies had one delegate, a few had two, and some of the larger ones had more, establishing the fundamental principle of a delegate representing fifty members. That original concept has not changed, though there has been criticism of it, owing to the belief that it gives to small societies too large a representation in the affairs of the State Society. The organization was established largely with our federal government as a pattern, with representatives, corresponding to our delegates, one for each state plus extras for a certain number of citizens—that number changing during the years. The federal government also had a senate with each state having two senators. The State Medical Society set up a Council established upon a very different basis, primarily one for each congressional district in the state.

At the time of this reorganization, it was decided to discontinue the "Transactions" and establish a Journal. Dr. Biddle published four volumes or thirty-nine numbers (Volume 1 had only three numbers). Benjamin Schenck succeeded for four years, publishing forty-eight numbers; Wilfrid Haughey succeeded for three years with thirty-six numbers; Frederick Warnshuis of Grand Rapids was then elected Secretary and Editor and served as Editor for sixteen years developing 192 numbers. It was then decided that the job was too big for one man to be both Secretary and Editor, and J. H. Dempster, M.D., of Detroit, was appointed the new Editor. He served for ten years, publishing 120 issues. Dr. Dempster was selected because of previous experience as a medical editor and not because of office in the State Medical Society (such as Secretary) as had been his predecessors. The next Editor was Roy Herbert Holmes, M.D., of Muskegon, Councillor from that district and chairman of the Publication Committee. He served four years lacking four months, publishing forty-four issues, when he was called into military service in World War II. Wilfrid Haughey, M.D., of Battle Creek, was chairman of the Publication Committee and took over in time to prepare the September number that year. He was Councillor from the Third District and had been on The Council for eight years and continued on The Council for seven more. With the December, 1958, number, he has published 196 issues, making a total of 675 numbers of The Journal which have been published up to the end of the year 1958. This is an interesting historic background which exists largely in memory.

During the year 1958, we have published 1,786 pages of The Journal plus 106 pages of Directory. That does not include cover pages, tipped in pages, or the four pages of central insert which we have been using. One hundred and seventy-one authors have contributed to our scientific papers, four of these having appeared twice.

We have continued the policy established many years ago of publishing editorials of an educational and socio-economic type, attempting to carry to our readers the philosophy of the Society as a whole, the accomplishments and ambitions of its members and reports on the major problems demanding our best thought and action. That has been, to a considerable extent, the motive of our preceding editors who, strange to say, have in every instance save one been officers of the state society. Dr. Dempster devoted his editorial attention to a scientific medical journal. He had been a medical editor and so continued being interested more in science than in economic problems.

In the year 1958, we have published fifty-one book reviews, sixty-six editorials and twenty-one editorial comments, seven cancer comment pages, five groupings of abstracts and condensations of the Detroit Physiological Society, and twelve of the Detroit Surgical Society, sixty-nine memorial sketches and a Blood Symposium abstracting twenty-one papers.

The January, 1958, number was devoted to Heart, the cover being a distinctive diagram of "Your Heart and How It Works." This material was presented to us very largely by the Michigan Heart Association. February honored the Kent County Medical Society with appropriate photographs of some of Kent County Society buildings on the cover. A picture of a doctor, a stethoscope, a microscope and sketches of the seven ages of man, showed the need of Preventive Medicine in the March issue. "Strike at Cancer" was the slogan for the April Cancer Number and showed an armed medieval warrior standing among the dragons carrying a staff with a streamer reading "Service—Research—Education." The May issue was devoted to Immunization with a man in armor overlooking a child and the words "Immunization—Modern Armor for Child Health." June, honoring Michigan Medical Service, used the slogan "Operation Crossroad—Now—Operation Forward" and showed road signs pointing the way forward.

July again was the Annual Session number for the 93rd session, showing a map of the United States with all roads leading to Detroit and the words "New Opportunity to Learn New Medicine." "Rural Health—The Last Frontier" was emphasized in August, showing an elderly man working in his garden and a child bringing him tools. A rough sketch of the new David Whitney House whose dedication took place that month, decorated the cover of the September issue which honored the Wayne County Medical Society. "Life in the Balance—Diet in Diabetes Control" was the theme for October and showed food being weighed on a scale. November, devoted to and sponsored by the Michigan Foundation for Medical and Health Education, honored "The Rural M.D.—Important to His Community" and illustrated the rural M.D. on his rounds. December, as usual, was devoted to Michigan Clinical Institute, featuring "All That's New in Medicine" and showing three knowledge capsules.

We are extremely thankful to those who were designated by these various interest groups to help lay out the plans for The Journal and to supply special papers. Again the editor wishes to express his thanks to the men who assisted in the preparation of these Journals: J. G. Bielawski, M.D., William R. Vis, M.D., William S. Reveno, M.D., William A. Hyland, M.D., Thomas Francis, Jr., M.D., L. Fernald Foster, M.D., L. Gordon Goodrich, Vlado Getting, M.D., L. J. Bailey, M.D., Clarence I. Owen, M.D., Charles Sellers, M.D., Wm. L. LeFevre, M.D., E. I. Carr, M.D., and also the staff at Lansing and especially Wm. J. Burns, Hugh Brenneman, Warren Tryloff and Robert J. Roney.

The Journals for the year 1959 have all been assigned, together with the various doctors who will assist

in assembling the material and in furnishing lead editorials. January will be Heart; February—The Doctor As a Citizen; March—The Washtenaw County Medical Society; April—Cancer Control; May—Beaumont Memorial Foundation; June—Michigan Medical Service; July—MSMS Annual Session; August—Child Welfare; September—Geriatrics; October—National Defense; November—Tuberculosis Control, and December—Michigan Clinical Institute.

Certain numbers for 1960 are assigned because a pattern has been established and they will continue unless for some reason a different arrangement be made. January will be Heart; April—Cancer Control; June—Michigan Medical Service; July—MSMS Annual Session, and December—Michigan Clinical Institute.

The Editor wishes to express his profound pleasure and satisfaction to have worked through the years with a constantly changing list of advisors, colleagues and collaborators. He has found the men with whom he worked always ready to lend a helping hand, to suggest and assist. His work has been a pleasure as well as a dedicated duty. These contacts, these exchanges of thought and opinion have kept him encouraged to attempt to do an increasingly better job.

Respectfully submitted,
WILFRID HAUGHEY, M.D.
Editor

MSMS 1959 BUDGET ESTIMATES

GENERAL FUND

ACCOUNT TITLE	1959 Estimates
INCOME:	
5250 members @ $60.00	$315,000.00
Less: $1.50 to THE JOURNAL	7,875.00
$9.25 to Public Education	48,562.50
$4.50 to Public Service	23,625.00
$6.25 to Professional Relations	32,812.50
$10.00 to MSMS Hdqts. Fund (New Bldg.)	52,500.00
$1.50 to Public Education Reserve	7,875.00
Balance to General Fund @ $27.00	$141,750.00
Interest and Misc. Income	8,000.00
TOTAL FUNDS AVAILABLE (General Fund)	$149,750.00
EXPENSES: (Administrative & General)	
Printing, Mailing & Postage	$ 7,000.00
Office Supplies	3,500.00
Insurance and Bonds	2,000.00
Auditing	750.00
Salaries: Adminstrative & Office & Legal Counsel	35,562.00
General Counsel Expense	500.00
Equipment and Repairs	3,000.00
Telephone & Telegraph	4,500.00
Taxes (Other than Property)	2,600.00
Miscellaneous Expenses & Contributions	2,000.00
Employes' Retirement Trust	10,500.00
I.B.M.	1,800.00
TOTAL ADMINISTRATIVE & GENERAL EXPENSE	$ 73,712.00
EXPENSES: (Society Activities)	
Council Expense	$ 18,000.00
AMA Delegates and Alternates	6,000.00
General Society Travel & Entertainment	7,000.00
Officers Travel	5,000.00
Secretary's Letters & Office Expense	1,200.00
Woman's Auxiliary	600.00
Dues Collection Expense	3,200.00
TOTAL SOCIETY ACTIVITY EXPENSE	$ 41,000.00
EXPENSES: (Committees)	
Cancer Coordinating Committee	$ 1,000.00
Child Welfare Committee	500.00
National Defense	500.00
Geriatrics	400.00
Industrial Health	100.00
Iodized Salt (Includes $1,500 previously authorized for Exhibit)	1,600.00
Legislative	1,400.00
Maternal Health	450.00
Mental Health	300.00
Michigan Health Council	10,000.00
Postgraduate Medical Education	4,500.00
Preventive Medicine	100.00
Permanent Conference Committee	250.00
Rural Medical Service	100.00
Scientific Radio	1,200.00
Tuberculosis Control	250.00
Veneral Disease	100.00
Highway Accident Committee	520.00
Advisory Committee to Medical Assistants	200.00
Big Look Committee	500.00
Medical Care Insurance Committees	15,000.00
Uniform Fee Schedule for Govt. Agencies	300.00
Miscellaneous Committees	1,050.00
TOTAL COMMITTEE EXPENSE	$ 40,320.00
TOTAL GENERAL FUND EXPENSES	$155,032.00
GAIN OR LOSS FOR THE YEAR (L)	5,282.00
BALANCE FROM PRIOR YEARS	175,249.99
NET GAIN OR LOSS FROM ANNUAL SESSION M.C.I. and THE JOURNAL	—0—
BALANCE TO FUTURE YEARS	$169,967.99

BUILDING MAINTENANCE FUND

INCOME:	
Allocation from Membership Dues	$ —0—
EXPENSES:	
Maintenance: Utilities, Decorating, supplies	2,000.00
Salaries—Janitor	1,500.00
Property Taxes	1,000.00
Insurance—Fire & Liability	500.00
Depreciation	1,800.00
TOTAL BUILDING MAINTENANCE EXPENSE	$ 6,800.00
GAIN OR LOSS FOR THE YEAR (L)	6,800.00
BALANCE FROM PRIOR YEARS	22,195.41
BALANCE TO FUTURE YEARS	$ 15,395.41

MSMS CONTINGENT FUND

Balance from prior years	$ 53,614.34

MSMS HEADQUARTERS FUND

INCOME:	
Allocation from membership dues	$ 52,500.00
Balance from prior years	85,373.04
TOTAL MSMS HEADQUARTERS FUND (New Bldg.)	$137,873.04

ANNUAL SESSION

INCOME:	
Booth Sales (132 spaces) Grand Rapids	$ 30,000.00
EXPENSES:	
Scientific Meeting	$ 3,750.00
Exhibit Expense	5,200.00
Registration and Hotel	850.00
State Society Night	4,000.00
Promotion: Printing & Mailing & Postage & Scientific Work Committee	3,500.00
Press Expense	2,500.00
Salaries	6,000.00
House of Delegates	4,000.00
Miscellaneous expenses	200.00
TOTAL ANNUAL SESSION EXPENSE	$ 30,000.00
GAIN OR LOSS ON THE ANNUAL SESSION	—0—

MICHIGAN CLINICAL INSTITUTE

INCOME:	
Booth Sales (74 Spaces) Detroit	$ 13,585.00
EXPENSES:	
Scientific Meeting	$ 3,000.00
Exhibit	3,200.00
Registration and Hotel	700.00
Promotion: Printing & Mailing & Postage	2,535.00
Press Expense	2,000.00
Salaries	1,500.00
Residents & Interns Conference	250.00
Miscellaneous Expenses	400.00
TOTAL MICHIGAN CLINICAL INSTITUTE EXPENSE	$ 13,585.00
GAIN OR LOSS ON M.C.I.	—0—

THE JOURNAL

INCOME:	
Allocation from membership dues	$ 7,875.00
Subscriptions—non members	700.00
Advertising Sales	115,000.00
Reprint & Cut Sales	4,000.00
TOTAL JOURNAL INCOME	$127,575.00
EXPENSES:	
Editor's Expense	$ 3,400.00
Printing, Mailing & Postage	73,000.00
Reprint & Cut Expense	3,800.00
Salaries	21,290.00
Discounts & Commissions	26,000.00
Miscellaneous Expenses	85.00
TOTAL JOURNAL EXPENSES	$127,575.00
GAIN OR LOSS ON THE JOURNAL	—0—

PUBLIC EDUCATION RESERVE

INCOME:		
Allocation from Membership Dues		$ 7,875.00
Balance from prior years		91,165.25
TOTAL PUBLIC EDUCATION RESERVE		$ 99,040.25

PUBLIC EDUCATION ACCOUNT

INCOME:		
Allocation from Membership Dues		$ 48,562.50
Other Income		100.00
TOTAL PUBLIC EDUCATION INCOME		$ 48,662.50
EXPENSES:		
Committee Meetings		$ 200.00
Equipment and Repairs		1,000.00
Printing, Mailing and Postage		2,500.00
Office Supplies		1,800.00
Salaries		22,000.00
Telephone and Telegraph		1,500.00
Travel and Entertainment		7,000.00
Exhibit Expense		1,800.00
Publications, Pamphlets and Clippings		1,500.00
Radio, TV and Cinema		6,000.00
Miscellaneous Expense		1,500.00
Library (Includes $300 Salary)		1,000.00
Michigan Association of Professions		5,000.00
Testimonial Luncheon (M.C.I.)		1,300.00
TOTAL PUBLIC EDUCATION EXPENSE		$ 54,100.00
GAIN OR LOSS FOR THE YEAR	(L)	5,437.50
BALANCE FROM PRIOR YEARS		17,677.72
BALANCE TO FUTURE YEARS	(G)	$ 12,240.22

PUBLIC SERVICE ACCOUNT

INCOME:		
Allocation from Membership Dues		$ 23,625.00
EXPENSES:		
Salaries		$ 22,000.00
Telephone & Telegraph		700.00
Travel and Entertainment		7,000.00
Rural Health Conference		100.00
TOTAL PUBLIC SERVICE EXPENSE		$ 29,800.00
GAIN OR LOSS FOR THE YEAR	(L)	6,175.00
BALANCE FROM PRIOR YEARS	(L)	5,409.09
BALANCE TO FUTURE YEARS	(L)	$ 11,584.09

PROFESSIONAL RELATIONS ACCOUNT

INCOME:		
Allocation from Membership Dues		$ 32,812.50
EXPENSES:		
Rent to Wayne County Medical Society		720.00
Salaries		22,000.00
Telephone and Telegraph		1,000.00
Travel and Entertainment		7,000.00
National Meeting Expense		1,500.00
County Secy's—P.R. Conference		6,500.00
County Society & Field Secy. Meetings		500.00
Woman's Auxiliary		2,000.00
Miscellaneous Expense		100.00
Printing, Mailing and Postage		500.00
TOTAL PROFESSIONAL RELATIONS EXPENSE		$ 41,820.00
GAIN OR LOSS FOR THE YEAR	(L)	9,007.50
BALANCE FROM PRIOR YEARS	(L)	2,463.45
BALANCE TO FUTURE YEARS	(L)	$ 11,470.95

RHEUMATIC FEVER CONTROL PROGRAM

INCOME:		
From Michigan Heart Association		$ 12,200.00
EXPENSES: (Central Office)		
Committee Meetings		600.00
Equipment and Repairs		200.00
Payroll Taxes		350.00
Printing, Mailing and Postage		1,750.00
Office Supplies		100.00
Fellowships		3,000.00
TOTAL CENTRAL OFFICE EXPENSE		$ 6,000.00
EXPENSES: (Control Centers)		
Alpena		500.00
Ann Arbor		800.00
Bay City		200.00
Detroit		500.00
Grand Rapids		1,500.00
Kalamazoo		1,200.00
Muskegon		200.00
Petoskey		100.00
Pontiac and Royal Oak		100.00
Saginaw		100.00
Traverse City		1,000.00
TOTAL CONTROL CENTER EXPENSE		$ 6,200.00
TOTAL RHEUMATIC FEVER CONTROL EXPENSES		12,200.00
GAIN OR LOSS FOR THE YEAR		—0—
BALANCE FROM PRIOR YEARS		1,879.18
BALANCE TO FUTURE YEARS		$ 1,879.18

REPORT OF KNOSTMAN & SMITH,

Certified Public Accountants—1958

Executive Committee of the Council
Michigan State Medical Society

We have examined the Statement of Financial Condition of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1958, and the related statements of income and expense and fund transactions for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying Statement of Financial Condition and related statements of income and expense and fund transactions, present fairly the position of the MICHIGAN STATE MEDICAL SOCIETY as at November 30, 1958, and the results of its operations for the fiscal year then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

KNOSTMAN & SMITH
Certified Public Accountants

Lansing, Michigan
December 30, 1958

Executive Committee of the Council
Michigan State Medical Society
Lansing, Michigan

Gentlemen:

The following comments relate to the scope of our examination of the MICHIGAN STATE MEDICAL SOCIETY, Lansing, Michigan, as at November 30, 1958, and to the more important items appearing in your financial statements for the fiscal year then ended.

HISTORY

The MICHIGAN STATE MEDICAL SOCIETY was organized on September 17, 1910, under the laws of the State of Michigan, as a non-profit corporation. The charter has been extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association, and it charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

COMMENTS

Your commercial bank account and your savings account were confirmed by direct correspondence with the Michigan National Bank, Lansing, Michigan, and the balances thus obtained were reconciled to your books of account as at November 30, 1958.

The treasurer's account, maintained at the Michigan National Bank, Grand Rapids, Michigan, was reconciled to your books of account at November 30, 1958, and further confirmed by direct correspondence with the depositary.

Our representative counted petty cash in the Lansing office in an amount of $36.61. The Detroit office petty cash of $50.00 was not verified.

Accounts receivable were confirmed by direct correspondence. Although not all confirmations have been returned, no negative replies have been received. Accounts Receivable, aged by month of charge is as follows:

September, October, November	$17,631.46
June, July, August	414.72
Over six months	1,686.53
TOTAL	$19,732.71

Insurance premiums due from employes in an amount of $1,642.03 are reimbursed to the society via payroll deductions. This balance is comprised of the following:

Retirement plan premiums	$1,633.48
Michigan Medical Service premiums	8.55
TOTAL	$1,642.03

The net cost of your retirement plan for the current year is as follows:

	Total	*Society Share*	*Employee Share*
Premium—1 year	$18,511.23	$ 9,984.42	$8,526.81
Adjustments	1,064.69	568.86	495.83
NET	$19,575.92	$10,553.28	$9,022.64
Collections from employees	$ 7,389.16		$7,389.16
	$12,186.76		$1,633.48
Due from employees in December, 1958, and January, 1959	$ 1,633.48		$1,633.48
NET SOCIETY COST	$10,553.28	$10,553.28	—0—

The employe loan is being repaid through monthly payroll deduction. The original loan of $5,000.00 was made on September 15, 1958, as authorized in the executive committee minutes of June 11, 1958.

An analysis of changes in your investments during the current year is set forth in Schedule 10, as well as a detail of interest received and amortization taken. All securities were confirmed by direct correspondence with the Michigan National Bank, Grand Rapids, Michigan, per their letter dated December 10, 1958.

Schedule 11 sets forth real estate owned and deposits pending new construction, together with applicable depreciation allowances.

Purchases of office equipment during the current year were charged to expense in accordance with the policy of the Society of not capitalizing these assets.

Receipts of membership dues were reconciled to the 6,668 cards issued during the year under review.

Journal advertising was test checked by us and the income from the sale of booth space for the Annual Session and the Michigan Clinical Institute was verified by our representative.

State and federal unemployment taxes were computed by our representative as at November 30, 1958.

Your accountant informed us that the Federal Income Tax Return for the year ended November 30, 1957, has not as yet been filed. Suffice it to say that governmental returns of any nature should not be delayed this long without just cause.

Exhibit 'C" sets forth the detail of the $71,643.70 net gain for the period ended November 30, 1958.

Respectfully submitted,
KNOSTMAN & SMITH
Certified Public Accountants

STATEMENT OF FINANCIAL CONDITION
November 30, 1958

ASSETS

CASH ON HAND AND IN BANKS		
Michigan National Bank		
Lansing, Michigan (regular account)	$ 38,474.12	
Lansing, Michigan (savings account)	10,458.53	
Grand Rapids, Michigan, (Treasurer's account)	7,119.30	
Office cash (Lansing and Detroit, Mich.)	86.61	$ 56,138.56
ACCOUNTS RECEIVABLE		
Advertising, allowances and other items	$ 19,732.71	
Due from employees—Insurance premiums	1,642.03	
Employee travel advances	400.00	
Employee loan (interest rate 4%)	4,916.44	
Due from employees (for merchandise purchased)	183.08	
	$ 26,874.26	
Less allowance for doubtful accounts	126.30	$ 26,747.96
INVESTMENTS (Schedule 10)		
Held for Public Education	$ 58,000.00	
Held for General Fund	188,177.80	$246,177.80
(Market or redemption value $241,156.50)		
PROPERTY AND EQUIPMENT (Schedule 11)		
Land	$ 10,000.00	
Lot adjoining office building	6,000.00	
Other real estate and deposits	74,433.50	
Office building	$34,500.00	
Building improvements	5,664.06	
Building equipment	3,836.09	
Parking lot	1,913.60	$ 45,913.75
	$136,347.25	
Less depreciation allowance	12,057.32	$124,289.93
OTHER ASSETS		
Overdeposit on payroll taxes		186.41
TOTAL ASSETS		$453,540.66

LIABILITIES

ACCOUNTS PAYABLE		
Federal Unemployment tax	$ 199.80	
Michigan Unemployment tax	34.34	
Unpaid invoices	14,252.78	
TOTAL ACCOUNTS PAYABLE		$ 14,486.92
SOCIETY EQUITIES		
RESERVED FOR SPECIAL PURPOSES		
Public Education Reserve	$ 91,165.25	
Public Education Program	17,677.72	$108,842.97
Public Service Account	(5,409.09)	
Professional Relations Account	(2,463.45)	
Rheumatic Fever Central Program	1,879.18	
Contingent Fund	53,614.34	
Building Fund	22,195.41	
New Headquarters Fund	85,373.04	
TOTAL RESERVED	$264,032.40	
General Society Equity 11-30-57	$133,962.62	
Net gain for period (Exhibit B)	41,058.72	$175,021.34
TOTAL EQUITIES (Exhibit C)		$439,053.74
TOTAL LIABILITIES AND EQUITIES		$453,450.66

EXHIBIT A

STATEMENT OF INCOME AND EXPENSES
Fiscal Year Ended November 30, 1958

INCOME		
Membership dues	$163,172.20	
Miscellaneous	10.00	
Interest income (Schedule 10)	8,741.85	
Amortization (Schedule 10)	660.02	$172,584.07
OTHER INCOME OR (LOSS)		
Annual Session (Schedule 2)	($2,669.46)	
Michigan Clinical Institute (Schedule 3)	(3,061.95)	
"The Journal' (Schedule 4)	9,004.16	$ 3,272.75
TOTAL INCOME		$175,856.82
EXPENSES		
Administrative and General	$ 69,272.71	
Society activity	38,886.77	
Committee expenses	26,638.62	
TOTAL EXPENSE (Schedule 1)		$134,798.10
NET GAIN		$ 41,058.72

EXHIBIT B

INCOME AND EXPENSE SUMMARY

Fiscal Year Ended November 30, 1958

	Balance 12-1-57	*Income For the Period*	*Expenses For the Period*	*Net Gain or (Loss)*	*Balance 11-30-58*
Equity—General Fund		$172,584.07	$134,798.10	$ 37,785.97	
Annual Session		26,882.50	29,551.96	(2,669.46)	
Michigan Clinical Institute	$133,962.62	13,080.00	16,141.95	(3,061.95)	$175,021.34
"The Journal"		134,433.18	125,429.02	9,004.16	
Contingent Fund	53,614.34	—0—	—0—	—0—	53,614.34
Building Fund	16,983.53	11,380.04	6,168.16	5,211.88	22,195.41
Public Education Reserve	74,084.00	17,081.25	—0—	17,081.25	91,165.25
Public Education Program	40,765.04	35,682.01	58,769.33	(23,087.32)	17,677.72
Public Service	2,761.86	19,920.66	28,091.61	(8,170.95)	(5,409.09)
Professional Relations	4,423.70	29,892.20	36,779.35	(6,887.15)	(2,463.45)
Rheumatic Fever Control Program	12,679.95	11,705.12	22,505.89	(10,800.77)	1,879.18
Headquarters Fund	28,135.00	57,238.04	—0—	57,238.04	85,373.04
TOTAL	$367,410.04	$529,879.07	$458,235.37	$71,643.70	$439,053.74

EXHIBIT C

SECURITIES OWNED—November 30, 1958

	Maturity Date	Face Value 11-30-58	Cost 12-1-57 (Book Value)	Redemption or Market Value at 11-30-58	Purchases During Period	Sales or Redemptions During Period	Amortization Debit Or (Credit)	Cost 11-30-58 (Book Value)	Interest Received To Last Interest Date
UNITED STATES GOVERNMENT SECURITIES									
Savings Bonds—Series "G"	5- 1-58	$ —0—	$ 5,000.00	$ —0—	$	$ 5,000.00	$	$ —0—	$ 62.50
Savings Bonds—Series "G"	3- 1-60	5,000.00	5,000.00	4,910.00				5,000.00	125.00
Savings Bonds—Series "G"	8- 1-58	—0—	30,000.00	—0—		30,000.00		—0—	750.00
Treasury Bond—Series "B" 2¾%	4- 1-80/75	8,000.00	8,151.73	8,000.00			(8.92)	8,142.81	110.00*
Savings Bonds—Series "K" 2.76%	6- 1-66	45,000.00	45,000.00	43,470.00				45,000.00	1,242.00
Savings Bonds—Series "K" 2.76%	7- 1-66	4,000.00	4,000.00	3,864.00				4,000.00	110.40
Treasury Bond—2¼%	6-15-62/59	25,000.00	24,791.67	23,750.00			208.33	25,000.00	562.50
Treasury Bond—2½%	3-15-70/65	10,000.00	9,814.06	8,900.00			26.56	9,840.62	250.00
Treasury Bond—2½%	11-15-61	25,000.00	24,498.44	24,250.00			167.18	24,665.62	937.50‡
Treasury Bond—2½%	11-15-61	35,000.00	34,199.38	33,950.00			266.87	34,466.25	875.00
Time Certificate— Michigan National Bank—3%	10- 7-57 30 days notice	—0—	25,000.00	—0—		25,000.00		—0—	770.84
Time Certificate— Michigan National Bank—3%	3-13-57 30 days notice	40,000.00	40,000.00	40,000.00				40,000.00	1,200.00
Savings Deposit Receipt— Michigan National Bank	10-24-57 Demand	15,000.00	15,000.00	15,000.00				15,000.00	450.00
Savings Deposit Receipt— Michigan National Bank	2-11-58 Demand	—0—	—0—	—0—	40,000.00	40,000.00		—0—	946.70
Savings Deposit Receipt— Michigan National Bank	8-27-58 Demand	30,000.000	—0—	30,000.00	30,000.00			30,000.00	—0—
Savings Deposit Receipt— Michigan National Bank	5-28-58 Demand	5,062.50	—0—	5,062.50	5,062.50			5,062.50	—0—†
TOTAL SECURITIES		$247,062.50	$270,455.28	$241,156.50	$75,062.50	$100,000.00	$660.02	$246,177.80	$8,392.44
Interest on Savings Account									307.97
Interest on Loan									41.44
TOTAL INTEREST EARNED									$8,741.85

NOTES:
*Interest due on October 1, 1958 in an amount of $110.00, was deposited on December 11, 1958.
†Interest due on November 28, 1958 in an amount of $75.93, was not deposited at November 30, 1958.
‡Interest due November 15, 1957, deposited in current fiscal year.

EXPENSES

Fiscal Year Ended November 30, 1958

ADMINISTRATIVE AND GENERAL

Printing, mailing and postage	$ 6,571.06
Office supplies	3,450.96
Insurance and fidelity bonds	2,413.85
Auditing	1,231.50
Salaries—administrative and office (including legal counsel)	31,800.40
General counsel expense	794.50
Equipment and repairs	1,572.00
Telephone and telegraph	3,944.89
Taxes (other than property)	2,666.82
Miscellaneous expenses and contributions	2,318.87
Employes retirement trust	10,553.28
International Business Machines	1,954.58
TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	$ 69,272.71

SOCIETY ACTIVITIES

Council expense	$ 16,088.40
AMA delegates and alternates	5,917.71
General society travel and entertainment	6,346.89
Officers' travel	4,956.79
Secretarys' letters and office expense	1,329.27
Womans' auxiliary	600.00
Dues collection expense	3,419.06
Residents and interns conference	228.65
TOTAL SOCIETY ACTIVITIES EXPENSES	$ 38,886.77

COMMITTEE EXPENSES

Cancer Coordinating Committee	$ 1,018.35
Child Welfare Committee	247.57
National Defense Committee	687.71
Geriatrics Committee	307.31
Industrial health	46.99
Legislative	1,346.21
Maternal health	544.92
Mental health	112.58
Michigan Health Council	10,000.00

Postgraduate medical education	4,646.28
Preventive medicine	129.57
Permanent Conference Committee	132.22
Rural Medical Service	89.31
Scientific radio	1,353.02
Tuberculosis control	366.76
Venereal disease	51.81
Beaumont Memorial Restoration	(209.29)
Highway Accident Committee	338.60
Iodized Salt	46.02
Big Look Committee	542.56
Medical Care Insurance	1,813.71
Sundry committee expense	3,026.41
TOTAL COMMITTEE EXPENSES	$ 26,638.62
TOTAL EXPENSES (EXHIBIT B)	$134,798.10

INCOME AND EXPENSE OF THE ANNUAL SESSION

Fiscal Year Ended November 30, 1958

INCOME	
Booth sales (102 spaces)	$ 26,882.50
TOTAL INCOME	$ 26,882.50
EXPENSES	
Scientific meeting	$ 4,231.65
Exhibit	3,815.23
Registration and hotel	937.51
State society and officers night	4,337.91
Promotion—printing, mailing, postage and Scientific Work Committee	4,678.19
Press expense	3,351.11
Salaries	5,593.44
House of Delegates	2,407.84
Miscellaneous expenses	199.08
TOTAL EXPENSES	$ 29,551.96
GAIN OR (LOSS) ON ANNUAL SESSION	$ (2,669.46)

INCOME AND EXPENSE OF THE MICHIGAN CLINICAL INSTITUTE

Fiscal Year Ended November 30, 1958

INCOME	
Both Sales (74 spaces)	$ 13,080.00
TOTAL INCOME	$ 13,080.00
EXPENSES	
Scientific meeting	$ 3,895.86
Exhibit	2,993.95
Registration and hotel	737.79
Promotion—printing, mailing and postage	2,973.97
Press	2,329.43
Salaries	1,160.23
Residents and interns conference	71.16
Miscellaneous expenses	1,979.56
TOTAL EXPENSES	$ 16,141.95
GAIN OR (LOSS) ON M. C. I.	$ (3,061.95)

INCOME AND EXPENSE OF "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 8,526.25
Subscriptions of others	747.20
Advertising sales	121,024.00
Reprint and cut sales	4,135.73
TOTAL INCOME	$134,433.18
EXPENSES	
Editors expense	$ 3,493.11
Printing, mailing and postage	71,222.53
Reprint and cut expense	3,781.52
Salaries	20,312.51
Discount and commissions	26,404.35
Miscellaneous expenses	215.00
TOTAL EXPENSES	$125,429.02
GAIN OR (LOSS) ON "THE JOURNAL"	$ 9,004.16

INCOME AND EXPENSE OF THE BUILDING MAINTENANCE FUND

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 11,380.04
TOTAL INCOME	$ 11,380.04
EXPENSES	
Maintenance—utilities, decorating, supplies, yard work, etc.	$ 1,951.48
Salaries—janitor	1,237.28
Property taxes	914.37
Insurance	279.18
Depreciation	1,785.85
TOTAL EXPENSES	$ 6,168.16
GAIN ON BUILDING MAINTENANCE FUND	$ 5,211.88

INCOME AND EXPENSE OF THE PROFESSIONAL RELATIONS ACCOUNT

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 29,892.20
TOTAL INCOME	$ 29,892.20
EXPENSES	
Rent to Wayne County Medical Society	$ 480.00
Salaries	20,497.14
Telephone and telegraph	500.00
Travel and entertainment	7,006.73
County secretaries—Public Relations Conference	6,563.24
Womans' auxiliary	1,732.24
TOTAL EXPENSES	$ 36,779.35
GAIN OR (LOSS) DURING PERIOD	$ (6,887.15)

INCOME AND EXPENSE OF THE PUBLIC EDUCATION PROGRAM

Fiscal Year Ended November 30, 1958

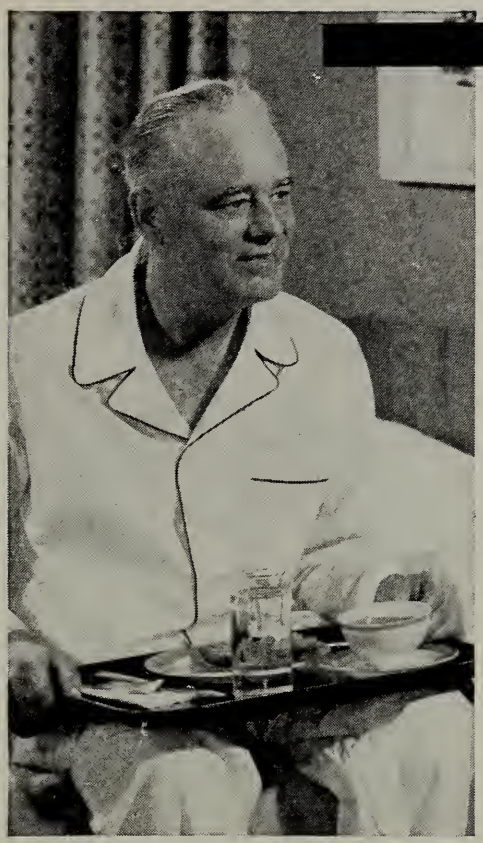
INCOME	
Allocation from dues	$ 35,564.66
Other income	117.35
TOTAL INCOME	$ 35,682.01
EXPENSES	
Committee meetings	$ 221.28
Equipment and repairs	2,973.26
Printing, mailing and postage	5,627.66
Office supplies	967.81
Salaries	20,497.14
Telephone and telegraph	3,032.78
Travel and entertainment	7,528.24
Exhibit expense	2,708.51
Publications, pamphlets, clippings	639.92
Radio, television and cinema	3,347.86
Library	465.38
Miscellaneous expenses	2,095.18
Testimonial luncheon	1,307.55
Michigan Association of Professions	7,356.76
TOTAL EXPENSES	$ 58,769.33
GAIN OR (LOSS) DURING PERIOD	$(23,087.32)

INCOME AND EXPENSE OF THE PUBLIC SERVICE ACCOUNT

Fiscal Year Ended November 30, 1958

INCOME	
Allocation from dues	$ 19,920.66
TOTAL INCOME	$ 19,920.66
EXPENSES	
Salaries	$ 20,497.14
Telephone and telegraph	500.00
Travel and entertainment	7,006.73
Rural health conference	87.74
TOTAL EXPENSES	$ 28,091.61
GAIN OR (LOSS) DURING PERIOD	$ (8,170.95)

(Continued on Page 442)



IN DEBILITATING DISEASE

Patients receiving

NILEVAR®

Eat more...
Feel better...
Recover faster

Compared to control patients, those receiving Nilevar (brand of norethandrolone) have repeatedly demonstrated more rapid and more complete recovery from serious acute illness and increased comfort and well-being in chronic illness.

A multitude of case histories are now adding individual clinical color to the earlier controlled investigations which defined the actions of Nilevar as an effective aid in reversing negative nitrogen balance and in building protein tissue.

In typical case reports such gratifying comments as these appear:

Underweight —"Appetite considerably increased within one week. Sense of well-being and vigor increased along with increased appetite."

Prematurity (Birth weight: 2 pounds, 4 ounces) — "Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

Carcinoma of the Uterus —"Within four days appetite became excellent, took full diet. . . . More ambition while on Nilevar. Enjoys life. Takes part in church and other social affairs."

Third Degree Burn—". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

Nilevar is supplied in tablets of 10 mg., ampuls of 25 mg. (1 cc.) and Nilevar Drops of 0.25 mg. per drop.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

Say you saw it in the Journal of the Michigan State Medical Society

(Continued from Page 440)

INCOME AND EXPENSE OF THE RHEUMATIC FEVER CONTROL PROGRAM

Fiscal Year Ended November 30, 1958

INCOME	
Grant from Michigan Heart Association	$ 11,705.12
TOTAL INCOME	$ 11,705.12
EXPENSES (Central Office)	
Committee meetings	$ 249.49
Equipment and repairs	—0—
Payroll taxes	96.32
Printing, mailing and postage	287.16
Office supplies	—0—
Salaries—administrative and office	—0—
Travel	—0—
Fellowships	2,515.86
Publications and pamphlets	329.81
TOTAL CENTRAL OFFICE EXPENSES	$ 3,478.64
CONTROL CENTERS	
Alpena	$ 400.00
Ann Arbor	720.00
Bay City	285.00
Detroit	233.50
Grand Rapids	1,423.20
Kalamazoo	1,430.00
Traverse City	1,285.00
TOTAL CONTROL CENTERS	$ 5,776.70
REFUND TO MICHIGAN HEART ASSOCIATION	$ 13,250.55
TOTAL EXPENSES	$ 22,505.89
GAIN OR (LOSS) DURING PERIOD	$(10,800.77)

PROPERTY AND DEPRECIATION ALLOWANCES—November 30, 1958

	Date Acquired	Cost	Depreciation Allowance Prior Years	Remaining Cost Beginning Of Period	Estimated Life	Depreciation Expense 1958	Depreciation Allowance 11-30-58
Land 606 Townsend	1951	$ 10,000.00	$ —0—	$ 10,000.00		$ —0—	$ —0—
Building 606 Townsend	1951	34,500.00	7,254.00	27,246.00	30	1,150.00	8,404.00
		44,500.00	7,254.00	37,246.00		1,150.00	8,404.00
BUILDING IMPROVEMENTS							
New building entrance	1953	3,917.85	576.80	3,341.05	30	130.55	707.35
Remodel basement and storeroom	1956	1,746.21	82.45	1,663.76	30	58.21	140.66
		5,664.06	659.25	5,004.81		188.76	848.01
BUILDING EQUIPMENT							
Lighting	1952	2,121.50	836.85	1,284.65	15	141.43	978.28
Boiler	1952	1,714.59	676.16	1,038.43	15	114.30	790.46
PARKING LOT	1953	3,836.09	1,513.01	2,323.08		255.73	1,768.74
LOT ADJOINING OFFICE BUILDING	1952	1,913.60	845.21	1,068.39	10	191.36	1,036.57
OTHER REAL ESTATE AND DEPOSITS		6,000.00	—0—	6,000.00		—0—	—0—
Land—M-78 and Abbott Road	1958	65,646.00		65,646.00			
Deposit on adjoining lot		500.00		500.00			
Architects fees on new headquarters building		8,287.50		8,287.50			
		74,433.50	—0—	74,433.50		—0—	—0—
		$136,347.25	$10,271.47	$126,075.78		$1,785.85	$12,057.32

MEDICAL MEETINGS AND CLINIC DAYS

1959

April		
8-9	12th Annual Rural Health Conference	Kellogg Center East Lansing
22	14th Annual Cancer Day	Merlis Brown Aud. Hurley Hospital Flint
May		
7	Ingham County Clinic Day	Lansing
13	Wayne State Univ. College of Medicine Alumni Clinic Day	Fort Shelby Hotel Detroit
June		
8-12	AMA—Annual Meeting	Atlantic City, N. J.
19-20	Upper Peninsula Medical Society	Gateway Hotel Land O'Lakes, Wisc.
25	Keyport Trauma Day—American College of Surgeons	Hidden Valley Lodge Gaylord
July		
30-31	Coller-Penberthy Clinic	Traverse City
Spring	Postgraduate Extramural Courses	State-Wide

If one . . . or all . . . needs nutritional support . . .



they
deserve

GEVRAL®

capsules—14 VITAMINS AND 11 MINERALS

Vitamin-Mineral Supplement Lederle

For Complete Formula see PDR (Physicians' Desk Reference), page 689

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

IONIZING RADIATION

While ionizing radiation has been of tremendous value to medicine both in the diagnosis and treatment of disease, the dangers to health associated with it have been recognized almost from the time this source of energy was discovered. Although these hazards were not a major concern of health departments until comparatively recent times, (because the sources of ionizing radiation were relatively limited) the Michigan Department of Health has been actively engaged in a radiological health program since well before the second world war. In fact it was the experience of official health agencies such as the Michigan Department of Health which was called on by the Atomic Energy Commission during the development of the atomic bomb.

Following World War II, the number of users of ionizing radiation has grown rapidly and the control of radiation exposure has become a significant public health problem. Responsibility for radiological health is centered in the Division of Occupational Health of the Michigan Department of Health. Its engineers have been trained in this work through scholarships from the Atomic Energy Commission, the U. S. Public Health Service, and others at such institutions as Harvard, Massachusetts Institute of Technology, University of Michigan, U. S. Public Health Service, and the Atomic Energy Commission. The division and its engineers are recognized by the Atomic Energy Commission as being competent and knowledgable in this field, and they have been accepted and cleared by the Atomic Energy Commission to receive all classified information issued by the Commission.

REGISTRATION CONTROL SHEET
December 22, 1958

Medical Equipment

Profession	Number	Therap.	Diag.	Fluoro.	Cysto	Skull	Port.	Photoflu.
M.D.	518	102	190	261	1	—	54	
D.O.	234	4	67	129			34	
D.C.	275		198	63			14	
Hospitals	234	125	209	299	24	6	217	36
Industrial	65	0	44	10			6	16
Miscellaneous	23	1	13	8			7	2
D.V.M.	35	1	25	2			7	
D.S.C.	130	3	94	2			31	

Dental Equipment

	No. Dentists	No. Machines
Michigan (except Detroit)	1591	1642
Detroit	527	572
Total	2118	2214

Radioactive Isotopes—Thorium, Radium, etc.

Industrial	43
Hospitals	54
M.D.	30
D.O.	4
Misc.	16
Total	147

Industrial

Total users	41

Miscellaneous

No. shoe stores	39
No. shoe machines	41

	M.D.	D.O.	D.C.	Hosp.	D.V.M.	D.D.S.	D.S.C.	Shoe
Total cards mailed	6600	1255	600	410	1600	3100	250	300
Estimated number using x-ray	660	300	300	410	240	2790	238	600

All sources of ionizing radiation shall be registered with the state health commissioner by the legal owner, user, or authorized representative.

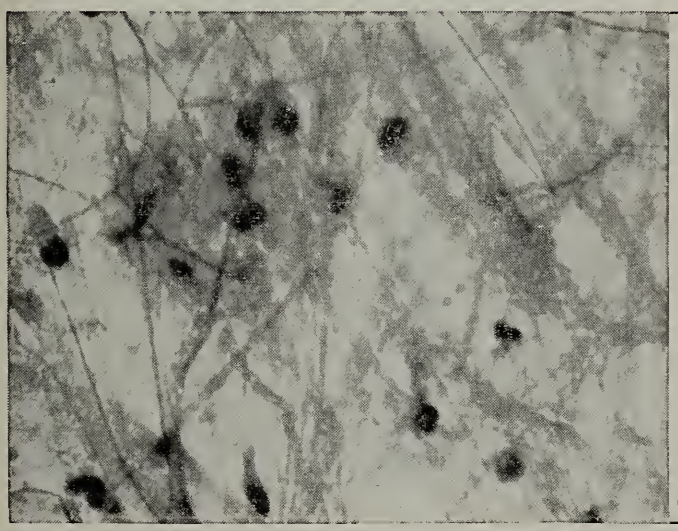
To provide a guide for the protection of operators and the public from radiation damage, to close gaps in protection and to integrate control activities developed over the years, the Michigan Department of Health began work some years ago on the development of rules and regulations to govern the use of radioactive isotopes, x-radiation, and all other forms of ionizing radiation. These regulations were adopted and made a part of the administrative code in January, 1958. A part of these regulations require users of materials or machines which emit

(Continued on Page 488)

ogesic*

Steroid—Analgesic Compound LEDERLE

for relief of *chronic*—but *less severe* pain of rheumatic origin



Indications: Mild cases of rheumatoid arthritis, tenosynovitis, synovitis, bursitis, mild spondylitis, myositis, fibrositis, neuritis and certain muscular strains.

Dosage: Average initial dosage: 2 capsules 3 or 4 times daily. Maintenance dosage to be adjusted according to response.

Each Aristogesic Capsule contains:

ARISTOCORT® Triamcinolone . . . 0.5 mg.
Salicylamide . . . . 325 mg.
Aluminum Hydroxide . . 75 mg.
Ascorbic Acid . . . . . 20 mg.

Supply: Bottles of 100.

Collagen tissue (x250)

*TRADEMARK

Lederle

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

In Memoriam

ALBERT E. BERNSTEIN, M.D., seventy-five, Detroit physician for fifty years, died January 18, 1959.

Doctor Bernstein was a graduate of the Windsor Collegiate Institute, Class of 1900, and was one of the founders of Sinai Hospital and the Maimonides Medical Society.

He was a member of Congregation Shaarey Zedek and the board of directors of the United Hebrew Schools.

HUGH WESLEY HARRISON, SR., M.D., fifty-eight, Detroit physician, died February 3, 1959.

Doctor Harrison was secretary and treasurer of the medical staff of St. Joseph Mercy Hospital and was Medical Director of the Alcoa Corporation for thirty-six years.

E. A. MARTINDALE, M.D., eighty-eight, a retired Hillsdale physician, died January 1, 1959.

Born in Hillsdale, Doctor Martindale practiced medicine for seven years at Jackson and four at Sturgis, before returning to Hillsdale.

He was a member of the College Baptist Church, Delta Tau Delta Fraternity and was a thirty-second degree Mason.

WILLIAM O. MERRILL, M.D., seventy-three, Detroit physician, died January 6, 1959.

Doctor Merrill was born in Crystal Valley, Michigan, and had been a Bloomfield Hills resident since 1935. He received his doctorate in medicine from the University of Michigan in 1909 and studied at the Universtiy of Vienna. Doctor Merrill was a captain in the medical corps during World War I. He was chief of the eye, ear, nose and throat department at Highland Park General Hospital for many years, and a Detroit practicing physician for forty-five years.

Doctor Merrill was a member of the Detroit Valley Body of the Scottish Rite, Moslem Temple and the Michigan Mineralogical Society. He held honorary life membership in the Birmingham Lodge F. and A.M., and Birmingham Chapter No. 93 Royal Arch Masons and was a charter member of Birmingham High Twelve. He was co-owner with his son of the Will-O-Way Playhouse in Bloomfield Hills. He was also a member of Christ Church, Cranbrook, and formerly served as a youth director of Central Methodist Church.

ROGER S. MORRIS, M.D., forty-seven, Ludington physician, died December 30, 1958.

Born August 12, 1911, at Cincinnati, Ohio, Doctor Morris was a 1940 graduate of the University of Chicago Medical School. He interned at Henry Ford Hospital in Detroit. Doctor Morris served four years in the Medical Corps during World War II. After the war he was resident physician at Presbyterian Hospital in Chicago and in 1949 and 1950 worked on a fellowship grant from American Cancer Society. He opened his practice in Ludington in September of 1957.

Doctor Morris was assistant professor of internal medicine at the University of Chicago, and staff member at Billings Memorial Hospital. He was a member of Grace Episcopal Church, University Club of Chicago, and the Chicago Yacht Club.

LEWIS PHELPS MUNGER, M.D., eighty-seven, Hart physician, died December 23, 1958.

Doctor Munger was a graduate of Hering Medical College in Chicago and practiced medicine in Hart from December, 1895, until his recent illness. Doctor Munger was one of the founders of the Oceana Hospital Association and served on its board of directors until 1952. He was vice president of Oceana County Bank at Hart and chairman of the board of directors of Oceana Canning Company at Shelby for many years. Doctor Munger was a member of Wigton Lodge 152, Free and Accepted Masons.

Doctor Munger was a pioneer cherry grower in West Michigan and was recognized at the largest individual grower in the United States.

HERMAN H. RIECKER, M.D., sixty-four, Ann Arbor physician, died January 4, 1959.

Doctor Riecker had been a St. Joseph Mercy Hospital physician and staff member since 1926. He had been an assistant professor in internal medicine and cardiology at the University of Michigan from 1926 to 1942.

Known for his work in organizing the rheumatic fever control program of Michigan, Doctor Riecker led in establishment in 1944 of the Rheumatic Fever Control Committee of the Michigan State Medical Society to direct efforts to train doctors to recognize the disease, set up diagnostic centers and provide care.

He received his medical degree from Johns Hopkins University in 1923, after serving in the U. S. Army during 1917-19. He was an emeritus member of the American Society of Clinical Investigators and a member of the Central Society of Clinical Research.

ANDREW G. STANKA, M.D., seventy-nine, Grand Ledge physician, died December 19, 1958.

Doctor Stanka was a graduate of the University of Michigan, Class of 1909. He was born in 1897 near the city of Bromberg, Germany. This veteran general practioner was also known as a hunter and was named Sportsman of the Year at the Jaycee Hunter's Stag in 1954. He was a member of the Masonic Order of Eastern Star and Odd Fellows lodges and his biography was recorded in the Biographical Encyclopedia of the World.

During the last twenty-five years of his life, Doctor Stanka took many trips to various parts of North America, the Hudson Bay basin, British Columbia, Alaska and Kodiak Island.

easier swallowing after T & A



Xylocaine Viscous provides quick-acting and prolonged surface anesthesia for sore and painful throats, particularly those occurring after tonsillectomy and adenoidectomy. Its cherry-flavored, water-soluble vehicle spreads evenly and adheres intimately to the membranes. Nonirritating and nonsensitizing. Dose: 1 teaspoonful, swished around in the mouth and then swallowed slowly.

Write for additional information regarding other uses which include management of hiccup and reflex vomiting, as well as relief of discomfort associated with laryngoscopy, esophagoscopy, gastroscopy and the passage of esophageal and gastric tubes.

ASTRA

Astra Pharmaceutical Products, Inc., Worcester 6, Mass., U.S.A.

XYLOCAINE® VISCOUS

(brand of lidocaine*)

for better doctor-patient relationship

SEE PDR

*U.S. PATENT NO. 2,441,498 MADE IN U.S.A.

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company

311 State Street S.E. Phone GL 9-9413

Grand Rapids 3, Mich.

Medical Arts Pharmacy

20-24 Sheldon S.E. Phone GL 6-9661

Grand Rapids 2, Mich.

Communications

Dr. Howard Benjamin
Grand Rapids, Michigan

Dear Dr. Benjamin:

At the last two KCMS meetings, there was much discussion by a few members about the new M-75 MMS plan, as a whole rather opposed to it. There were many of us there who listened only, and I for one was not prepared to give rebuttal to these views. It has been my understanding that this plan was accepted in good faith for trial. Further discussion would be in regard to how well it worked and to modify it for improvement. Here, we have had discussion denouncing it, before it has gone into effect. It is like wanting divorce before the marriage has been consummated.

As one who has signed up as a participant in this plan, I would like to support MMS in its attempt to create plans for care of the people, regardless of age and past medical history. This is not an insurance plan. It is prepaid medical care. There is no profit motive behind it. This was not an ill-conceived plan by the physicians of 20 years ago. They had a problem on their hands and went about solving it. The MMS has done a magnificent job in the past against all odds. It was shown that a prepaid medical care plan could be financially sound.

As a consequence, insurance companies have entered the field for profit. They do not cover everyone. One must be fit physically to be able to get this coverage, and the policies are usually cancellable. Similarily, labor unions and management both, such as UMW and The Permanente Foundation, tend to cover mainly this group of people, and without free choice of physician. This leaves the government and the Blue plans as the only ones which give complete coverage to anyone who cares to join.

Since we believe in the free enterprise system of competition, we have to be actively engaged in this competition. If we can't offer a product better, as cheap, and covering more people than any of these other plans, then we are going to be out of business and absorbed by others.

We are not in the practice of medicine for profit. There is no capital gains tax applicable for our services. We, as medical men, dedicated to relieve pain and suffering regardless of economic class, should and must be producers of medical health plans which will cover anyone. We must be active and dynamic about this, not passive, in the spirit of the founders of MMS. In order to keep medicine free and under our control, we must produce, and that is what MMS is trying to do. Admittedly, there are inequities regarding fee schedules, but these can and will be resolved.

We say that we are not going to be dictated to or forced to do anything by the government, labor unions, or anyone else. Laws change by the will of the people. Pressure groups force their will by lobbying. The one way we can keep these parties in check is by convincing them we have the best plans available. In so doing, we must work from the premise of what is best for the people, as we have always done, and not, first, what is best for us. This is no time to rebel and resign from something we were a party to. Co-operation is more important now than ever before. As members of the MSMS, we have recourse to improve upon these plans at intervals. Let us continue to improve upon the work of the founders of the MMS, a well conceived idea which has and still can work.

Sincerely,
MICHAEL E. ELLIS, M.D.

Grand Rapids, Michigan
October 1, 1958

(Reprinted by permission of author and *Kent County Bulletin.*)



Lowers blood pressure — maintains mental alertness

calms the patient under stress

Rautensin provides a smooth, gradual and sustained reduction of blood pressure without sudden rebounds or abrupt declines.[1] Rautensin's tranquilizing properties calm the tense and anxious hypertensive without impairing alertness, without producing excessive lethargy or drowsiness.

The risk of Rauwolfia-induced depression is markedly reduced since the alseroxylon fraction alone is used.[2] Even on long-term administration side actions "...are either completely absent or so mild as to be inconsequential."[3]

Rautensin®

Each tablet contains 2 mg. of the purified alseroxylon complex of Rauwolfia serpentina

1. Wright, W. T., Jr.; Pokorny, C., and Foster, T. L.: Kansas M. Soc. *57*:410, 1956. 2. Gilchrist, A. R.: Brit. M. J. *2*:1011 (Nov. 3), 1956. 3. Terman, L. A.: Illinois M. J. *3*:67, 1957.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

from intensive research...

Burdick



MODERN EQUIPMENT
for the
MEDICAL PROFESSION

ELECTROCARDIOGRAPHY — After 10 successful years in the manufacture of electrocardiographs, we are proud to present the new dual-speed EK-III. The higher speed facilitates the study of rapid electrocardiographic deflections.

ULTRASOUND — The all-new UT-400 provides *continuous* ultrasonic energy or *pulsed* energy where a greater proportion of mechanical effect to thermal is indicated.

DIATHERMY—The Burdick line includes the MW-1 Microtherm® and the MF-49 short wave unit.

INFRARED THERAPY—The Zoalite series has become the standard of quality and performance for the hospital, physician's office and home use on prescription.

ULTRAVIOLET — Burdick hot quartz mercury arc lamps assure effective treatment with a minimum of exposure time.

CARDIAC MONITOR — The Telecor monitors the heart beat electrically with needle electrodes, or mechanically through a digital pulse pickup.



THE BURDICK CORPORATION
MILTON, WISCONSIN

Branch Offices:
NEW YORK • CHICAGO
ATLANTA • LOS ANGELES

Dealers in all principal cities

THE G. A. INGRAM COMPANY

4444 Woodward Avenue, Detroit 1, Michigan

Legal Opinion

IMPORTANT FAR-REACHING COURT DECISION

The American College of Physicians has joined Cutter Laboratories in appealing the decision of January 17, 1958, of the Superior Court in Alameda County awarding two children, Anne Elizabeth Gottsdanker and James Randall Phipps, damages for polio infections allegedly resulting from the use of Cutter vaccine despite the jury's finding that Cutter Laboratories was not negligent.

In its amicus curiae brief (friend of the Court), it points out:

"The creation of an absolute liability concept would greatly impair future progress. The introduction of new products and procedures would be stifled and mankind would be denied the continual advancement of medical science. . . . We believe that when, as in the cases before the court at this time, a biological is made according to strict government specifications and complies with the best scientific and productive knowledge available and when the manufacturer is absolved of all possible negligence by the jury, as this defendent was, no liability should be incurred when an injury occurs because of the user's own peculiar susceptibility or because of insufficient scientific knowledge at that time. To create such an absolute liability would be to saddle the world of medical science with an unfair burden. . . . We in no way feel that we are over-dramatizing these results for it is clear that researchers would be unwilling to try new drugs on patients, practicing physicians would be afraid to avail themselves and their patients of the new wonder drugs and pharmaceutical houses would not be willing to manufacture new products should this concept be applied, for it holds the defendent liable without fault and liable for the unknown.

"Since the fact is self-evident that certain treatments will save lives or alleviate suffering, it is unrealistic and unreasonable to say that there must be no unknown untoward effects. If we take this position, then the conquering of disease in the future will be far slower, as neither manufacturers nor insurance companies can afford to insure against the unknown and the unpreventable. Thus, the lifesaving drug or biological that may save thousands of lives every year from cancer which might be available tomorrow would probably, under the absolute liability situation, be withheld for another ten years of testing and 'wait and see' and 'make sure' periods. To be sure, a statistically small number of hypersensitive or hypersusceptible individuals will thus be saved from harm, but in the meantime thousands who might otherwise live, or live without suffering, will necessarily be denied medical care.

"How can any scientist, physician, hospital or pharmaceutical producer become involved in any forward steps in medicine, no matter how surrounded by standards, if he is to be held responsible for knowledge that does not, and cannot exist until the future unfolds."

In the Treatment of Rheumatic Disorders Greater stability of maintenance dosage minimizes risks of hormonal imbalance

In Sterazolidin, the anti-inflammatory actions of prednisone and Butazolidin* are combined to permit lower effective dosage of each. Clinical experience has indicated that patients can be well maintained on this combination over prolonged periods with relatively low, stable dosage levels of each component, thus minimizing the problems arising from excessively high doses of corticosteroids. Other side effects have also been gratifyingly few. Antacid and spasmolytic components are contained in Sterazolidin capsules for the benefit of patients with gastric sensitivity.

Sterazolidin®: Each capsule contains prednisone 1.25 mg.; phenylbutazone 50 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

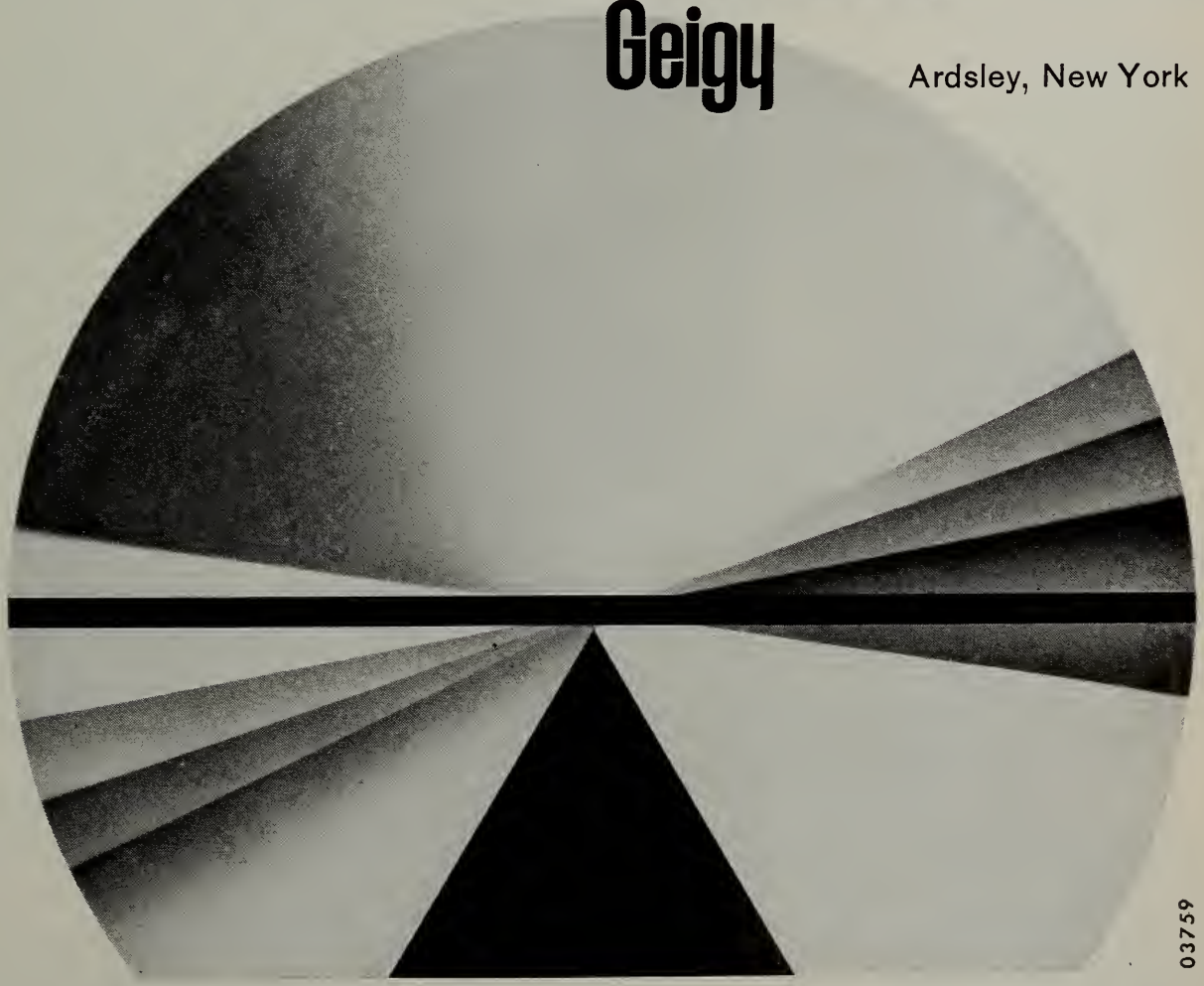
Detailed information available on request.

*Geigy's trademark for phenylbutazone—Reg. U. S. Pat. Off.

new **Sterazolidin®** Capsules

prednisone-phenylbutazone, Geigy

Geigy Ardsley, New York



03759



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Winthrop N. Davey, M.D., Ann Arbor, is the author of an article entitled "The Chemotherapy of Tuberculosis," published in *GP,* January, 1959.

Fred G. Blum, Jr., M.D., Keith Gates, M.D., and **Burton R. James, M.D.,** Ann Arbor, are the authors of an article entitled "How Important Are Peripheral Fields?" published in *AMA Archives of Ophthalmology,* January, 1959.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled "Hyaline Bodies of Ganglion-Cell Origin in the Human Retina," published in *AMA Archives of Ophthalmology,* January, 1959.

Wm. B. Hubbard, M.D., Flint, is the author of an article entitled "An Improved Binocular Magnifier," published in *AMA Archives of Ophthalmology,* January, 1959.

John W. Keyes, M.D., and **Franz J. Berlacher, M.D.,** Detroit, are the authors of an article entitled "Chlorothiazide (Diuril)—A New Nonmercurial Orally Given Diuretic," read in the Symposium on "The Newer Diuretics—especially Chlorothiazide—Indications and Reported Use" before the Section on General Practice at the 107th annual meeting of the American Medical Association, San Francisco, June 26, 1958, and published in *Journal of the American Medical Association,* January 10, 1959.

Seward E. Miller, M.D., Ann Arbor, is the author of an article entitled "Government's Role in Preventive Medicine," presented at Lake Logan Conference, Lake Logan, North Carolina, May, 1958, and published in *Industrial Medicine and Surgery,* January, 1959.

James A. Mayer, M.D., Goldsboro, North Carolina (formerly of Ann Arbor), is the author of an article entitled "A Statistical Study of Lymphoblastoma in the Necropsy Series at the University of Michigan Hospital III. Organs Involved," published in the *University of Michigan Medical Bulletin,* October, 1958.

Arthur C. Curtis, M.D., and **Donald S. Schuster, M.D.,** Ann Arbor, are the authors of an article entitled "Laboratory Diagnosis, Biology, and Treatment of Syphilis," published in *Clinical Medicine,* December, 1958.

F. D. Stimpert, Ph.D., I. W. McLean, Jr., Ph.D., and **B. I. Wilner, Ph.D.,** Detroit, are the authors of an article entitled "Poliomyelitis Vaccine: A Story of Its Development," read at the fall meeting of the Industrial Research Institute, Washington, D. C., and published in *South Dakota Journal of Medicine and Pharmacy,* December, 1958.

Jack C. Westman, M.D., Ann Arbor, is the author of an article entitled "An Appraisal of Home Blood-Pressure Readings in the Management of Hypertension," published in the *University of Michigan Medical Bulletin,* November, 1958.

William Hoatt, M.D., and **E. H. Watson, M.D.,** Ann Arbor, are the authors of an article entitled "Vaccination with Asian Influenza Vaccine," published in the *University of Michigan Medical Bulletin,* November, 1958.

Giles G. Bole, Jr., M.D., and **Oscar W. Thompson, M.D.,** Ann Arbor, are the authors of an article entitled "Acute Mumps Pancreatitis: A Case Report," published in the *University of Michigan Medical Bulletin,* November, 1958.

Robert G. Lovell, M.D., Ann Arbor, is the author of an article entitled "Medical Student Research, 1957-58," published in the *University of Michigan Medical Bulletin,* November, 1958.

Reed M. Nesbit, M.D., and **Arjan D. Amar, M.D.,** Ann Arbor, are the authors of an article entitled, "Report of a Case of 25-Year Survival After Archiectomy," published in the *Journal of the American Medical Association,* January, 17, 1959.

Henry Gall, M.D., and **Irvin J. Kurtz, M.D.,** Detroit, are the authors of an article entitled "Simple Renal Cyst in Children," published in the *AMA Journal of Diseases of Children,* September, 1958.

George Moriarity, M.D., Roland Bron, M.D., Victor Doig, M.D., Aaron Farbman, M.D., Ovis Wagg, M.D., James Horvath, M.D., Aage Nielsen, M.D., and **Henry Vandenberg, M.D.,** Detroit, are the authors of an article, "Gems and Stratagems I—1958 Meeting, American College of Surgeons," published in *Harper Hospital Bulletin,* November-December, 1958.

Richard M. Hall, M.D., Detroit, is the author of an article entitled "A Ten-Year Review of Hip Fractures (1947-56)," published in *Harper Hospital Bulletin,* November-December, 1958.

Reuben Lopatin, M.D., and **Jack Kaufman, M.D.,** Detroit, are the authors of an article entitled "Acute Hemorrhagic Leukoencephalitis — Case Report," published in *Harper Hospital Bulletin,* November-December, 1958.

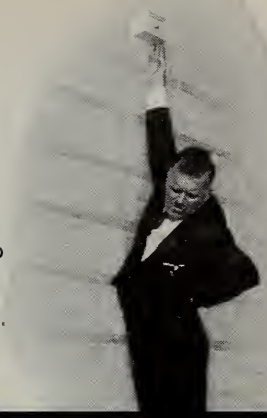
R. Songe, M.D., Detroit, is the author of an article entitled "Lipomas of the Colon," published in *Harper Hospital Bulletin,* November-December, 1958.

Henry J. Vandenberg, Jr., M.D., and **Harry C. Saltzstein, M.D.,** Detroit, are the authors of an article entitled "Notes—1958 Meetings of the James Ewing and Head and Neck Surgeons Societies," published in *Harper Hospital Bulletin,* November-December, 1958.

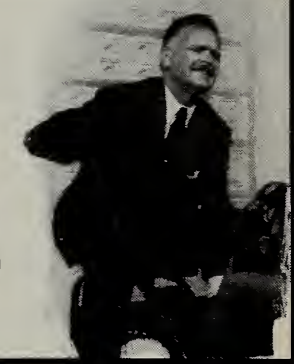
Robert G. Lovell, M.D., Ann Arbor, is the author of

(Continued on Page 460)

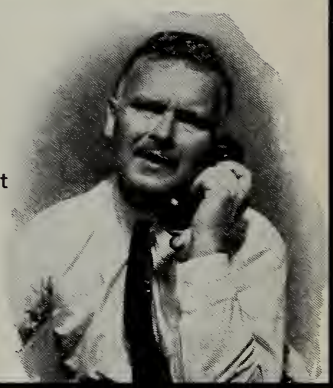
REACHING FOR THOSE 9B's NEARLY PUT ME ON THE SHELF...



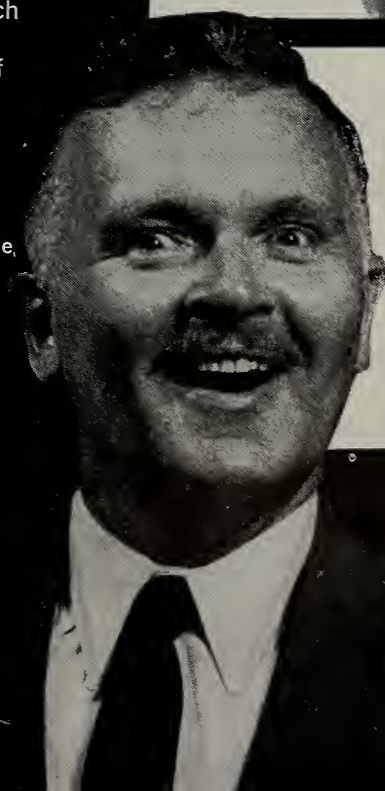
Reaching for 9B shoes and other top shelf sizes is no joke . . . it gave me a terrible kink in my back.



Before the day was over, I could hardly stoop to push a shoehorn.



I called my doctor that night and picked up the tablets he prescribed.



The pain went away fast—in just 15 minutes—and I was back on the job the next morning! But not one 9B customer came in the whole day!

Percodan®-Demi & Percodan® *Tablets*

Salts of Dihydrohydroxycodeinone and Homatropine, plus APC

FOR PAIN

ACTS FASTER — usually within 5-15 minutes. **LASTS LONGER** — usually 6 hours or more. **MORE THOROUGH RELIEF** — permits uninterrupted sleep through the night. **RARELY CONSTIPATES** — excellent for chronic or bedridden patients. **VERSATILE** — new "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law permits oral prescription.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

AND THE PAIN WENT AWAY FAST

Endo®

Literature? Write
ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,628,185

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 458)

an article entitled "Counseling in the Medical School Using a Peer Rating System," published in *The New Physician,* February, 1959.

H. Marvin Pollard, M.D., William A. Gracie, Jr., M.D., and **James C. Sisson, M.D.,** Ann Arbor, are the authors of an article entitled "Extrahepatic Complications Associated With Cirrhosis of the Liver," read before the Section on Gastroenterology and Proctology at the 107th annual meeting of the American Medical Association, San Francisco, June, 1958, and published in the *Journal of the American Medical Association,* January 24, 1959.

Paul A. Lindquist, M.D., Battle Creek, is the author of an article entitled "Chemical and Biological Warfare," published in the *Journal of the American Medical Association,* January 24, 1959.

Paul S. Parrino, M.D., Battle Creek, is the author of an article entitled "National Shelter Program," published in the *Journal of the American Medical Association,* January 24, 1959.

Hermann Pinkus, M.D., Detroit, is the author of an article entitled "Embryology of Hair," published in *The Biology of Hair Growth,* 1958.

R. L. Brier, M.D., Mobile, Alabama, and **C. H. Steele, M.D.,** Detroit, are the authors of an article entitled "Mycosis Fungoides: A Prolonged Course and Association with Adenocarcinoma of the Breast," published in *Southern Medical Journal,* Journal of the Southern Medical Association, July, 1958.

Robert J. Schoenfeld, M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "The Recurrence of Nevi After Incomplete Removal," presented at the Clinical Melanoma Conference, Houston, Texas, November, 1957, and published in *AMA Archives of Dermatology,* July, 1958.

Edward W. Kelly, Jr., M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "Oral Treatment of Keloids," published in *AMA Archives of Dermatology,* September, 1958.

Harold Plotnick, M.D., and **Hermann Pinkus, M.D.,** Detroit, are the authors of an article entitled "The Epidermal vs. the Dermal Fingerprint," published in *AMA Archives of Dermatology,* January, 1958.

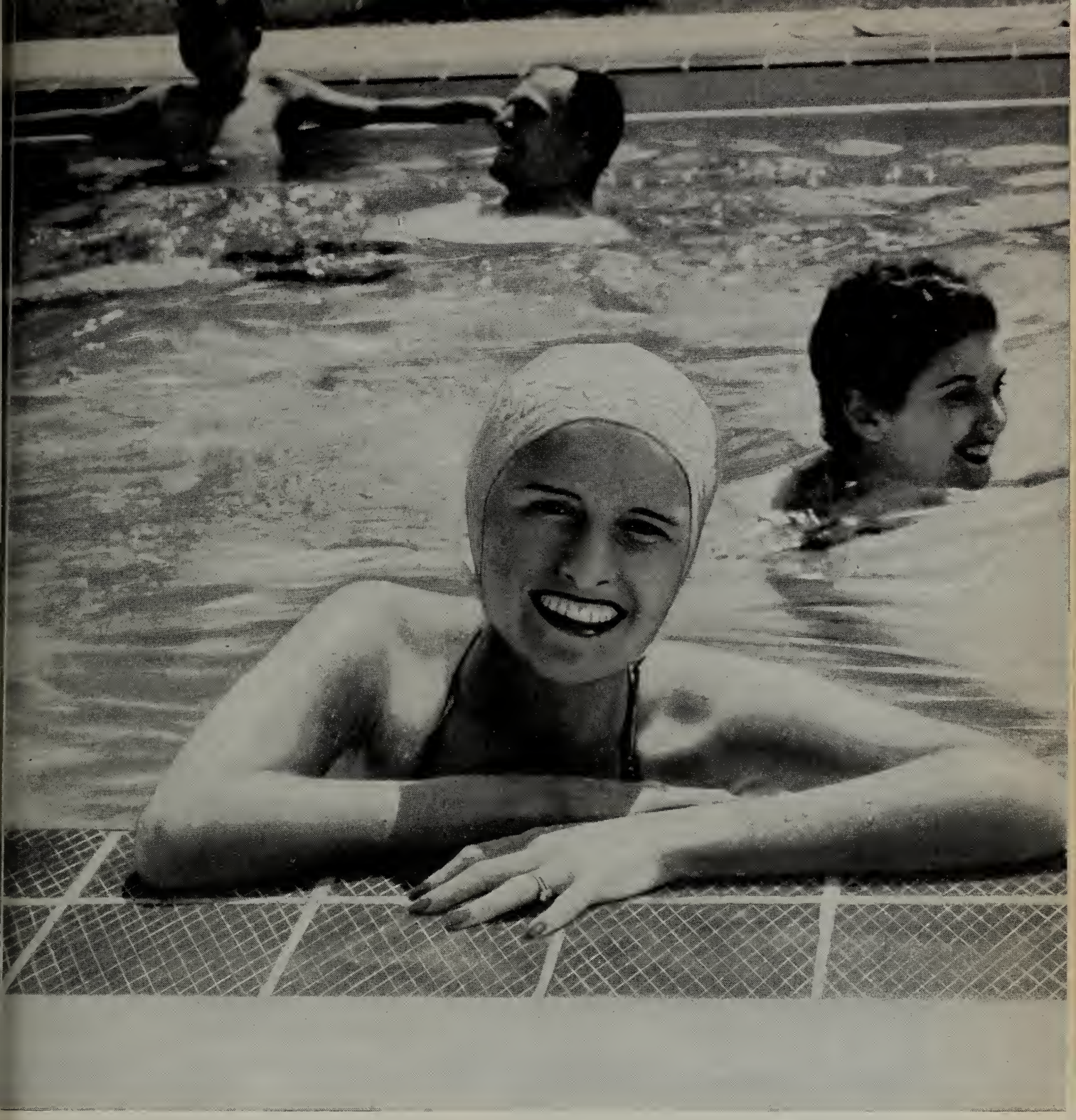
Julin Fan, M.D., Detroit, is the author of an article entitled "Epidermal Separation with Purified Trypsin," published in *The Journal of Investigative Dermatology,* June, 1958.

Herschel S. Zackheim, M.D., Royal Oak, is the author of an article entitled "Polyethylene Squeeze Bottles for Potassium Hydroxide Solutions," published in *AMA Archives of Dermatology,* July, 1958.

Julin Fan, M.D., and **Rosie Hunter** are the authors of an article entitled "Langerhans Cells and the Modified Technic of Gold Impregnation by Ferreira-Marques," published in *The Journal of Investigative Dermatology,* August, 1958.

James Barron, M.D., Birmingham, is the author of an article entitled "The Use of Jejunal and Ileal Loops in

(Continued on Page 462)



Of course, women like "Premarin"®

THERAPY for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

The patient isn't alone in her devotion to this natural estrogen. Doctors, husbands, and family all like what it does for the patient, the wife, and the homemaker.

When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

Ayerst®

5854

(Continued from Page 460)

Stomach and Colon Surgery," published in *Henry Ford Hospital Medical Bulletin,* December, 1958.

Lee B. Stevenson, M.D., and **Melvern A. Ayers, M.D.,** Detroit, are the authors of an article entitled "Hamartoma," presented before the Wisconsin Society of Obstetrics and Gynecology, October, 1958, and published in the *Henry Ford Hospital Medical Bulletin,* December, 1958.

Luis A. Tomatis, M.D., Rodman E. Taber, M.D., F.A.C.S., Conrad R. Lam, M.D., F.A.C.S., and **Edward W. Green, M.D.,** Detroit, are the authors of an article entitled "Experimental Studies with Low Oxygen Flow Rates in the Bubble Oxygenator," published in *Henry Ford Hospital Medical Bulletin,* December, 1958.

Harry M. Nelson, M.D., and **Padraic Carney, M.D.,** Detroit, are the authors of an article entitled "Ovarian Tumors and Pregnancy," published in *Clinical Medicine,* January, 1959.

Harry Vandercamp, M.D., and **Ann Morgan, M.D.,** Battle Creek, are the authors of an article entitled "General Practitioner and Mental Disorders," published in *Medical Times,* December, 1958.

Joseph G. Molner, M.D., M.P.H., Lansing, is the author of an article entitled "The Role of the Practicing Physician in Public Health," read at the annual meeting of the Iowa Academy of General Practice, Des Moines, September, 1958, and published in *The Journal of Iowa State Medical Society,* February, 1959.

Herschel S. Zackheim, M.D., Royal Oak, and **Hermann Pinkus, M.D.,** Monroe are the authors of an article entitled "Calcium Chloride Necrosis of the Skin," published in *AMA Archives of Dermatology,* August, 1957.

Edward W. Kelly, Jr., M.D., Detroit, and **Hermann Pinkus, M.D.,** Monroe, are the authors of an article entitled "Report of a Case of Pachyonychia Congenita," published in *AMA Archives of Dermatology,* June, 1958.

Robert J. Schoenfeld, M.D., Detroit, is the author of an article entitled "Subcorneal Pustular Dermatosis," published in *AMA Archives of Dermatology,* November, 1958.

Hermann Pinkus, M.D., Detroit, is the author of an article entitled "The Concept of Symbiosis Applied to Normal and Abnormal Growth in the Human Epidermis," published in *Dermatologica,* International Journal of Dermatology, Vol. 117, No. 5, 1958.

George W. J. Smith, M.D., Leonard Uhr, Ph.D., John C. Pollard, M.B., B.S. (London), and **James G. Miller, M.D., Ph.D.,** are the authors of an article entitled "An Exploratory Study of the Behavioral Effects of Suavitil (Benactyzine Hydrochloride)" published in the *University of Michigan Medical Bulletin,* October, 1958.

P. Blaquier, M.D., James Conway, M.D., and **S. W. Hoobler, M.D.,** Ann Arbor, are the authors of an article entitled "The Use of a New Ganglion-Blocking Agent, 'Ostensin,' in Severe Hypertension," published in the *University of Michigan Medical Bulletin,* October, 1958.

(Continued on Page 466)

It's an "OPEN AND SHUT CASE" for sandura



ILLUSTRATED – Welch Allyn Otoscope - Ophthalmoscope Set No. 983, complete with Sandura Case

The new WELCH ALLYN instrument case that offers you far greater

- **DURABILITY**
- **CLEANLINESS**
- **COMPACTNESS**
- **BEAUTY**

The Sandura Case is molded in reinforced material to stand great shock or abrasion, with tarnish-proof soft rubber lining which protects instruments from shock. The entire case can be washed or sterilized with alcohol.

THE MEDICAL SUPPLY CORPORATION

OF DETROIT

3502 Woodward Avenue **TEmple 1-4588** **Detroit 1, Michigan**



maintenance therapy is still fundamental treatment

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.[1,2,3]

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an. outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid.

In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. *257*:278 (Aug.) 1957.

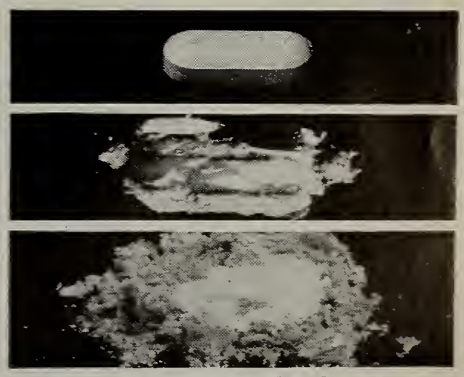
Buffered Pabirin® *Tablets*

Each tablet contains:

Acetylsalicylic acid (5 gr.)	300 mg.
Para-aminobenzoic acid (5 gr.)	300 mg.
Ascorbic acid	50 mg.
Dried aluminum hydroxide gel	100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.



Photographs show 2-stage Tandem Release disintegration.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

(Continued from Page 462)

R. D. Currier, M.D., and **M. R. Westerberg, M.D.,** Ann Arbor, are the authors of an article entitled "Evaluation of a Salicylamide Compound in the Treatment of Headache," published in the *University of Michigan Medical Bulletin,* October, 1958.

R. M. Nesbit, M.D. and **A. D. Amar, M.D.,** Ann Arbor, are authors of clinical notes entitled "Choriocarcinoma," which appeared in *The Journal AMA,* January 17, 1959.

W. C. Shands, M.D., and **J. Harvey Johnston, Jr., M.D.,** Jackson, are the authors of an article entitled, "Aneurysm of the Splenic Artery," published in AMA *Archives of Surgery,* December, 1958.

John D. Rodger, M.D., Bellaire, Michigan, is the author of an article entitled, "Objectives For State Medical Society Traffic Safety Committees," published in the *Journal of the American Medical Association,* December 27, 1958. This paper was read in the Symposium and Panel Discussion on Motor Vehicle Accidents and Their Prevention in the Session on Traffic Accidents before the Section on Miscellaneous Topics at the 107th Annual Meeting of the American Medical Association, San Francisco, June 25, 1958.

J. DeWitt Fox, M.D., Detroit, is the author of an article entitled, "Unique Movable Footrest For Elevation of the Lower Extremity," published in the *Journal of the American Medical Association,* November 22, 1958.

C. C. Santos, M.D., and **R. B. Sweet, M.D.,** Ann Arbor, are authors of an original article "Balanced Analgesia for the Poor-Risk Patient Undergoing Thoracic Surgery" which appeared in JAMA, December 13, 1958.

Brita McLean, M.D., Frank G. Talbot, M.D., and **William Jend, Jr., M.D.,** Detroit, are authors of an original article "Detection of Uterine Cancer in Industry" in the AMA *Archives of Industrial Health,* September, 1958. This article reported a mass screening survey and a cytotechnicians training program. Assisting in planning the program were Osborne A. Brines, M.D.; E. R. Jennings, M.D., and Harry M. Nelson, M.D., Detroit. Esther Dale, M.D., and Frank Eurs, M.D., made the cytological studies.

* * *

The November issue of *Industrial Medicine and Surgery,* which features Light and Vision, has several articles contributed by Michigan men:

W. A. Stannard, General Lighting Sales Supervisor of Consumers Power Company, Jackson, "Maintaining Lighting Levels in the Office"

B. S. Pritchard, Associate Research Engineer, Engineering Research Institute, University of Michigan, Ann Arbor, "Light and Its Measurements"

Floyd Sell, Supervisor of Commercial Sales, The Detroit Edison Company, Detroit, "The Four Factors of Seeing"

(Continued on Page 468)

MOTOR CARS...
are among the finest products of MICHIGAN *industry...*
just as quality PHARMACEUTICALS
are the constant product of
MARION LABORATORIES

Marion's Oyster Shell, In Four Combinations with Vitamins and Iron

- No Leg Cramps
- More Ionized Blood Calcium
- Fewer Secondary Anemia Problems
- Better Tolerated Iron Therapy
- Economical Medication

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

MARION

LABORATORIES, Inc.

2910 Grand Ave. • Kansas City, Missouri

*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 466)

H. Richard Blackwell, Ph.D., Departments of Psychology and Ophthalmology and Vision Research Laboratories, University of Michigan, Ann Arbor, "A Generalized Method for Specification of Interior Illumination Levels"

Robert A. Boyd, Ph.D., Research Physicist, Engineering Research Institute, University of Michigan, Ann Arbor, "Daylighting"

George D. Clayton, Detroit, of George D. Clayton & Associates, "Making A Lighting Survey."

* * *

Discrimination Against the Aged.—The West Virginia State Medical Association Legislative Bulletin, reports that The Council of the West Virginia State Medical Society voted unanimously in favor of the enactment of *Senate Bill 135* which would make it unlawful for an employer or licensing agency to refuse to employ or to terminate from employment an individual because he is between the ages of forty-five and sixty-five.

* * *

The Editor has received a small ten-page booklet with a stiff cover entitled *"Prognosis" Research Is What You Make it.* This is Volume 1, Number 1, dated January, 1959, of a publication which the publishers plan to distribute among physicians and pharmacists.

* * *

Dr. Robert E. Stowell, Professor of Pathology at the University of Kansas Medical School, moderated a slide seminar on Histochemistry for the Michigan Pathological Society at Henry Ford Hospital, February 14, 1959. The seminar, which studied the histologic changes of tissue with associated biochemical alterations, is the first such seminar to be conducted in Michigan and represents an important milestone in the progress of clinical pathologists toward providing more complete diagnostic laboratory services.

Dr. Stowell, who received his medical degree from Stanford University in 1941, also holds a degree of Doctor of Philosophy in Pathology from the University of Washington. He is a consultant for the Atomic Energy Commission and the U. S. Public Health Service.

* * *

Sixty-five members of the American College of Physicians attended a one-week postgraduate course in gastroenterology at The University of Michigan Medical Center, November 10, 1958. Director of the course was H. Marvin Pollard, M.D., professor of internal medicine. The program was the third in a series of eight being held at major medical centers in the East and Midwest.

Thirty members of the University of Michigan staff and fourteen visiting lecturers presented summaries on research, diagnosis and treatment in the different branches of the field.

One highlight of the course was an address by C. G. Child, III, M.D., newly appointed chairman of the University of Michigan Department of Surgery. The physicians also had one presentation by live color tele-

(Continued on Page 470)

New concept in patient feeding

THE BARRON FOOD PUMP



SMALL CALIBER INTUBATION TUBE

CONTROLLED FORCED TUBE FEEDING

REPLACEMENT OF UPPER GASTRO-INTESTINAL FLUIDS

ALIMENTARY INGESTION OF NATURAL FOODS

ALL ESSENTIAL NUTRIENTS FOR CELLULAR METABOLISM

The restoration and maintenance of proper nutrition, fluid, and electrolyte balance is an ever present problem in the care of many medical and surgical patients. Increasing evidence stresses more and more the complexity of the nutritional needs of the human body. From the known nutrients of a generation ago the number of factors known to be necessary for healthy cellular metabolism has greatly increased, and undoubtedly, even more will be discovered in the future.

The BARRON FOOD PUMP permits an adjustable controlled administration of liquified natural foods through a small (2.5mm) caliber plastic intubation tube at a regulated constant rate of delivery while the patient is allowed to sit up, lie down, or turn on either side as desired.

The BARRON FOOD PUMP also provides a means by which gastric juice, bile, pancreatic, and other upper gastro-intestinal fluids containing essential electrolytes, enzymes, etc. can be returned to the body by adding them to the food bottle.

The mechanically proven construction of the BARRON FOOD PUMP with its silent operation requiring a minimum of nursing attention makes it not only a necessity in most tube feeding cases, but provides a wider range of application of this preferred method of patient feeding.

Randolph Surgical
SUPPLY CO.
13121 Woodward Avenue Detroit 3, Michigan
Townsend 9-7000



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

(Continued from Page 468)

vision—a demonstration by Ludovic O. Standaert, M.D., on methods of examining the abdomen.

Guest faculty members for the course included: J. Edward Berk, M.D., Audrey K. Brown, M.D., and Louis A. Schwartz, M.D., all of Wayne State University College of Medicine, Detroit; R. W. Brauer, M.D., U. S. Naval Radiological Defense Laboratory, San Francisco; Clifford J. Barborka, M.D., Northwestern University School of Medicine, Chicago; Joseph B. Kirsner, M.D., University of Chicago School of Medicine, Chicago; G. Gordon McHardy, M.D., Louisiana State University School of Medicine, New Orleans; Franz J. Ingelfinger, M.D., Boston University School of Medicine, Boston; Hugh R. Butt, M.D., University of Minnesota (Mayo Foundation), Rochester; Charles A. Flood, M.D., Columbia University College of Physicians and Surgeons, Richard H. Marshak, M.D., The Mount Sinai Hospital, and Hans Popper, M.D., Columbia University of Physicians and Surgeons, all of New York City; Leslie T. Webster, Jr., M.D., Western Reserve University School of Medicine, Cleveland; and Henry L. Bockus, M.D., University of Pennsylvania Graduate School of Medicine, Philadelphia.

* * *

Fifteen senior medical students from the National University of Mexico arrived in Ann Arbor Friday, January 30, for a month-long seminar at The University of Michigan Medical Center.

Arranged by the two Universities through the U. S. Department of State, the seminar opened extensive professional exchanges within the Americas.

The Mexican students had a two-day orientation over the week-end, and then began regular classes at the University of Michigan, Monday, February 2.

Each visiting student was paired with a senior in the University of Michigan Medical School, and they attended regular classroom activities and clinical sessions together.

The fifteen were divided according to special fields of interest, including medicine, surgery, obstetrics, radiology, pediatrics and psychiatry.

Throughout the month, clinical work was chiefly limited to the morning hours. Afternoons were devoted to special lectures, tours and demonstrations of University of Michigan medical resources.

Prof. Marvin Felheim of the English Department gave a seminar on American civilization for the visitors.

Medical coordinator of the seminar was Sibley W. Hoobler, M.D., of the Department of Internal Medicine at the University of Michigan Medical Center. Dr. Hoobler flew to Mexico City to select the fifteen visitors from thirty candidates chosen by the faculty of the National University. Chosen on the basis of grades, personality and potential for future leadership in medicine, the group represented the top five per cent of the senior class at the University of Mexico Medical School, the oldest medical school in the Americas.

President of the Michigan State Medical Society, G.

(Continued on Page 472)

in HAY FEVER *Family Physicians use*

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

BARRY
since 1928

(Continued from Page 470)

B. Saltonstall, M.D., extended greetings from Michigan doctors and the American Medical Association.

Following their month-long experience at the University of Michigan, the visitors made a two-week tour of the northeastern United States, escorted by Mr. Clifford Miller, administrative assistant of the University's International Center. Their itinerary took them to Cleveland, Ohio (March 1), Buffalo and Albany, New York (March 2, 3), Boston, Mass. (March 4-6), New York City (March 6-9) and Washington, D. C. (March 9-15). From Washington they flew back to Mexico City.

* * *

A treatment center for alcoholism opened at Detroit's Receiving Hospital on January 13 under the direction of the Wayne State University department of psychiatry. The Alcoholic Center will be part of Receiving's outpatient clinic, will be supported by the State Board of Alcoholism.

James H. Graves, M.D., clinical director of the hospital's department of psychiatry and assistant professor at Wayne State, will administer the program.

Long-term and specialized care for a selected group of alcoholics will be given. Wayne medical students will then evaluate different types of psychiatric treatment used.

The admission rate and number of alcoholics treated at Receiving Hospital is the highest in the country, except for New York's Bellevue Hospital.

* * *

American Medical Education Foundation Record Year.—The contributions received by AMEF in 1958 established new records, both in amount and numbers of contributors. The 15 per cent jump in income over 1957's total of $984,884 is certain to be matched by an equally large increase in the number of givers, although the final count of contributors is not, as yet, available. The month of December established a record for a thirty-day period with over $540,000 being received. The AMEF headquarters staff received compliments for its work in processing each of the 6,500 checks received during the month.

* * *

The American Academy of General Practice will hold its annual meeting in San Francisco's Civic Auditorium, April 6-9, 1959. The Congress of Delegates will convene at 2 P.M. Saturday, April 4, in the Fairmont Hotel until noon, Monday, April 6. A very elaborate program will greet the 7,000 who are expected to attend.

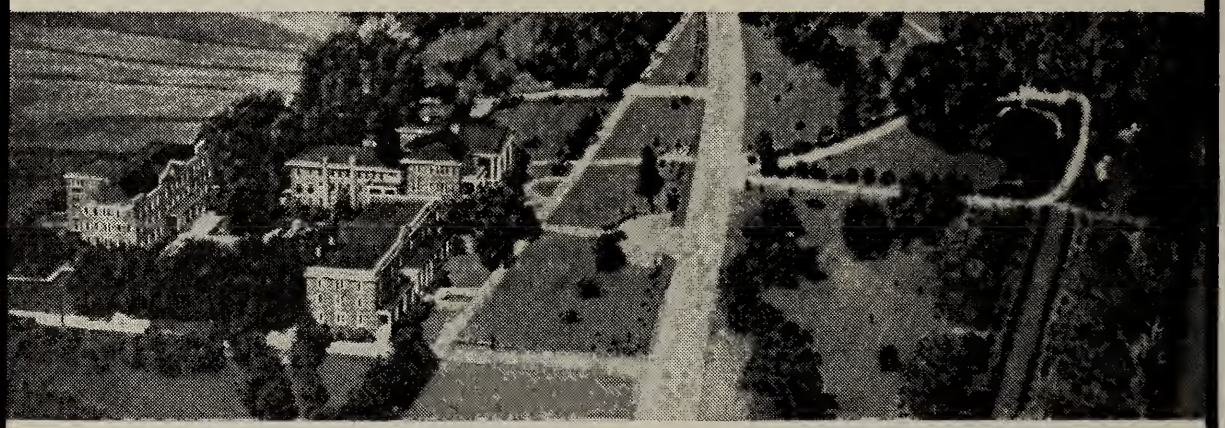
* * *

The American College of Surgeons will hold its first Canadian four-day sectional meeting in Montreal, for surgeons and nurses, April 6-9.

(Continued on Page 476)

Nursing Care for Elders In The Deep South

Green Acres
INC.
MILLEDGEVILLE, GA.



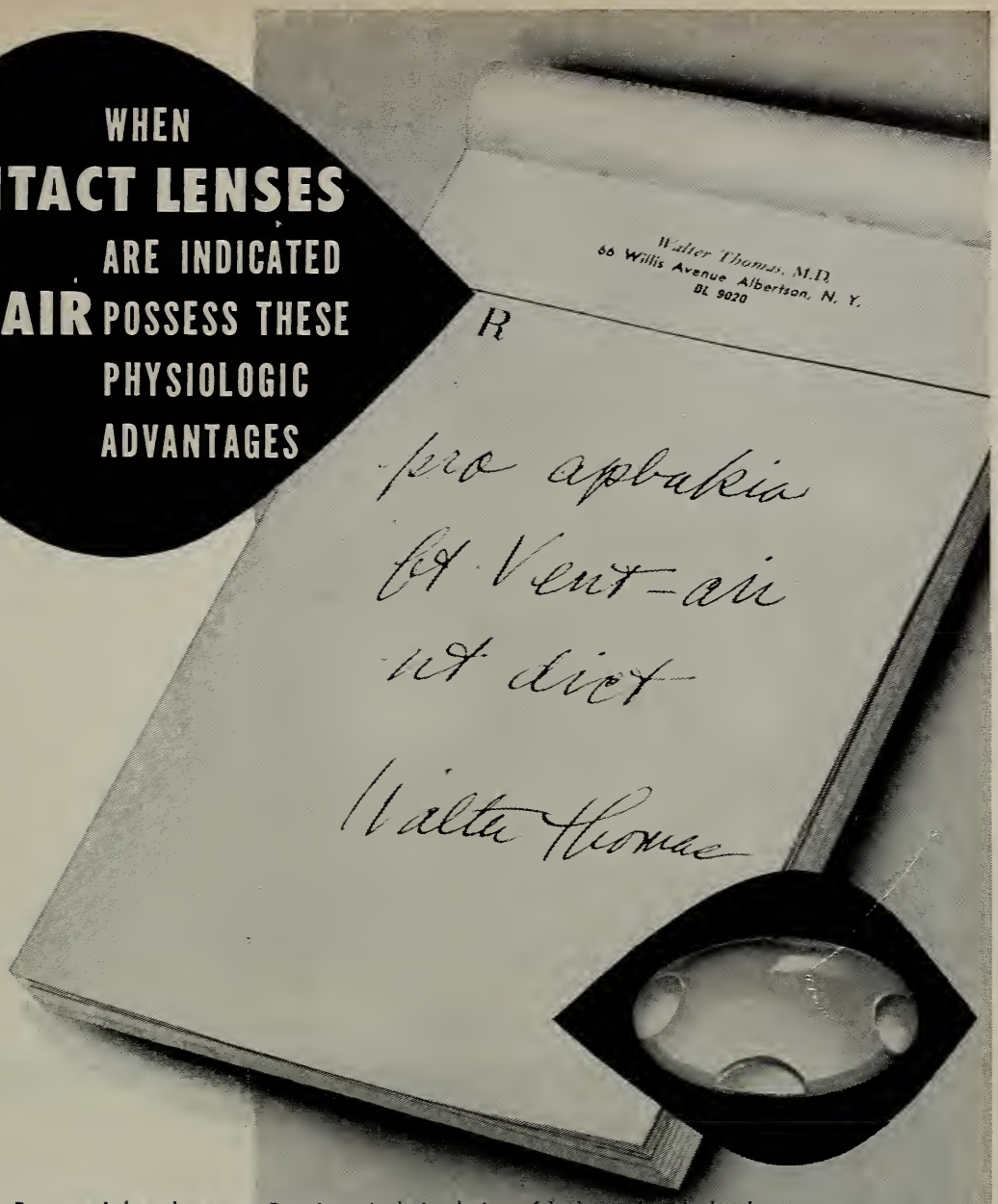
Owned by Doctors and operated by a registered nurse in a beautifully landscaped 20 acre estate in the mild climate of Middle Georgia. All buildings housing guests sprinkled. *Rates do not include medical care, medication, personal laundry or other extras.

Mrs. Sue H. Baldwin, R. N.
Superintendent

*Monthly Rates } Camellia Court from $150
Magnolia Hall from $210

The South's Finest Health Resort for Elders

WHEN CONTACT LENSES ARE INDICATED VENT-AIR POSSESS THESE PHYSIOLOGIC ADVANTAGES



Four peripheral vents	Permit topical circulation of lachrymal and glandular secretions without excessive motility
Corneal apical clearance	Favors normal corneal metabolism and oxygenation
Ultra-Smoothness of Inner and Outer Surfaces	Avoid limbal epithelial and tarsal conjunctival exacerbation
Highly absorptive methyl-methacrylate composition	Simulates "wetting" and moisture-retention properties of cornea (of military specification)
Precision-ground	Prescriptive qualities exact to ± 0.12 D. with precise allowance for vertex refraction and lachrymal factor (exact to .02 mm radius in inner curvature)
Custom-fitted	In uni-, bi-, or tri-curve radii conforming to corneal peripheral asphericities
Hyper-thinness of edge or center	Maintains uniform thickness in high myopia or hyperopia approximating .20 mm irrespective of power
Widest range of inner radii	From 5.0 to 10.00 mm providing for extremes of keratoconic and megaloglobic dimensions
Cosmetic, pin-hole and tinted effects	For leucomatous, polyopic, iridodialytic and albinic conditions or other corneal or media anomalies.

VENT-AIR CONTACT LENS LABORATORIES • NEW YORK, N. Y.

(Continued from Page 472)

Harry S. Morton, M.D., chairman, assistant professor of surgery, McGill University Faculty of Medicine, Montreal, and Charles Edouard Hebert, M.D., co-chairman, clinical professor of surgery, University of Montreal Faculty of Medicine, are heading the Committee on Arrangements. The program for the joint nurses session is headed by Miss Moyra Allen, McGill University, and Sister Denise Lefebvre, Institute Marguerite d'Youville. The meeting will be held April 6 to 9, 1959, with headquarters at the Queen Elizabeth Hotel. The program will include hospital clinics, panel discussions, symposia, scientific papers, technical exhibits, medical motion pictures and cine clinics in general surgery and the surgical specialties of anesthesiology, ophthalmic surgery, otolaryngology, urology, orthopedic surgery, and gynecology-obstetrics.

* * *

The annual Postgraduate Course on Otolaryngology will be held in University Hospital, April 16, 17 and 18, 1959. The annual Ophthalmology Conference will be held on April 20, 21 and 22, 1959 at the Department of Postgraduate Medicine, Horace H. Rackham School of Graduate Studies.

* * *

Legal aspects of public health were reviewed in a three-day conference starting Monday, Februray 2, at The University of Michigan School of Public Health. The program included sessions on the enforcement of public health laws in both civil and criminal actions, and the legal responsibilities of health officers. Participants included U-M faculty members, officers of state and county health departments, and attorneys interested in the health field.

About 100 persons attended. The conference was planned by the School of Public Health, the Michigan Department of Health, and the State Bar Association. Chairman of the program was Douglas H. Fryer, M.D., Director of the Division of Local Health Administration of the Michigan Department of Health.

* * *

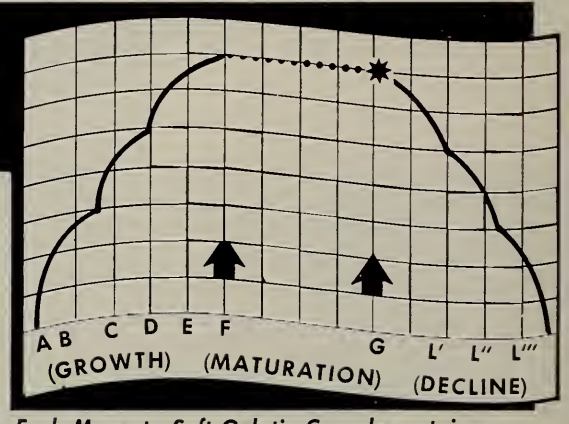
A $2,500 graduate fellowship in public health this year is being offered by the Michigan Tuberculosis Association. The Werle-Bennett Graduate Fellowship is intended to encourage persons to enter the fields of tuberculosis and public health and to encourage graduate study in public health. The fellowship is available to residents of Michigan with a bachelor's degree from a recognized college or university who are eligible for admission to the University of Michigan School of Public Health. The recipient will be asked to work in Michigan's voluntary TB field or in public health for two years following graduation. Application forms and further information about the fellowship may be gotten by writing to the Michigan Tuberculosis Association, 403 Seymour Avenue, Lansing 14. Deadline for applying for the Werle-Bennett Fellowship is April 1.

* * *

Hospital Transfer Asked.—A recommendation that Northern Michigan Sanatorium at Gaylord be transferred to the Michigan Department of Health for treat-

...to postpone the "G" point*...

℞.....Geritag



For patients over 40, The G POINT (point of declination in life) can be postponed!

Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

Write for Latest Technical Bulletins.

Each Magenta Soft Gelatin Capsule contains:

Methyltestosterone	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estradiol	0.01 mg.	Riboflavin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methianine	20 mg.
Vitamin E	1 I.U.	Inasital	20 mg.
Cal. Pantathenate	3 mg.		

Also available as injectable.

TUTAG

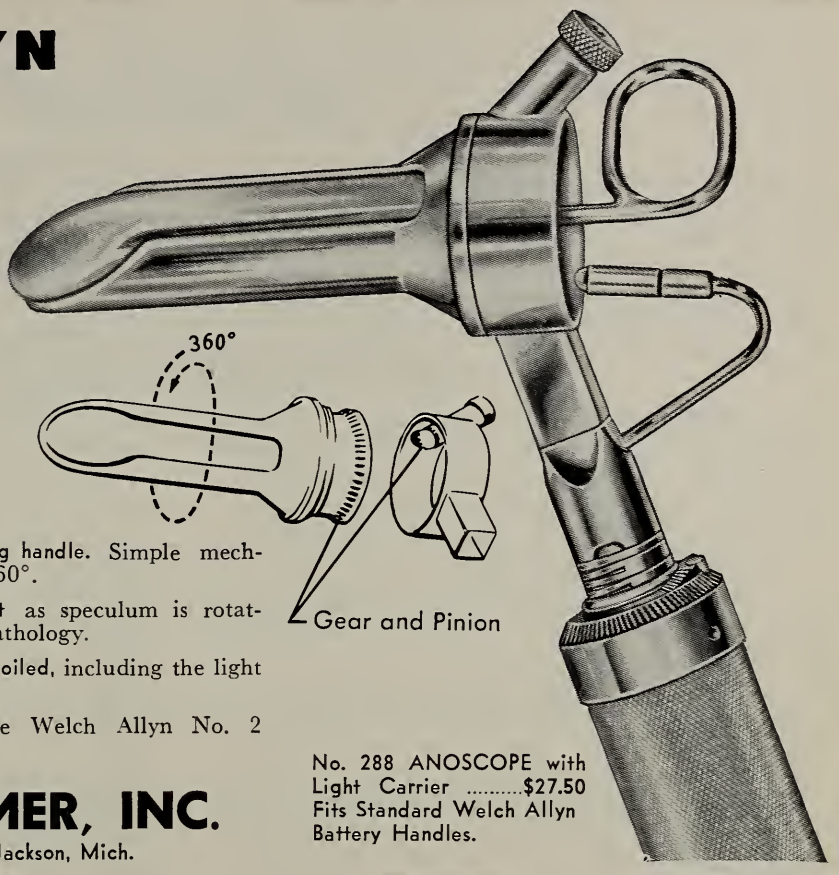
S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

WELCH ALLYN
LIGHTS THE WAY

NEW ROTATING ANOSCOPE

Facilitates examination and instrumentation



- Speculum can be rotated without moving handle. Simple mechanism turns speculum through full 360°.
- Orbiculated edges minimize discomfort as speculum is rotated even in the presence of rectal pathology.
- Entire instrument can be autoclaved or boiled, including the light carrier and lamp.
- Brilliant self-illumination with durable Welch Allyn No. 2 lamp.

No. 288 ANOSCOPE with Light Carrier $27.50
Fits Standard Welch Allyn Battery Handles.

NOBLE-BLACKMER, INC.
267 W. Michigan Ave. Jackson, Mich.

ment of mentally retarded children was made January 5 to Gov. G. Mennen Williams by a citizens committee on mental health. If the legislature accepts the committee proposal, sixty-six tuberculous patients would be moved out of the hospital. Tuberculosis control facilities for taking chest x-rays, interpreting films, and medical consultation would be needed for the thirty counties now served by the tuberculosis hospital. With room for 176 tuberculosis patients, the hospital has operated at less than 50 percent of capacity in recent years. The citizens committee said more than 200 mentally retarded children could be cared for at the Gaylord hospital.

* * *

Mount Carmel Mercy Hospital Clinic.—The twentieth annual Clinic Day presented by the Staff of Mount Carmel Mercy Hospital was held January 28, 1959. Five outstanding papers were presented, and a complimentary luncheon was prepared by the Sisters of Mercy.

* * *

Arthur J. Vorwald, M.D., of Wayne State University College of Medicine was one of fifteen representatives from seven countries to meet in South Africa, February 9 to 21, to discuss their problems with pneumoconiosis, a chronic inflammation of the lungs caused by the inhalation of dust—mostly mineral.

Other delegates from the United States were: Theodore F. Hatch, Professor of Industrial Health Engineering, University of Pittsburgh; O. A. Sander, M.D., of Milwaukee.

The three Americans met in Johannesburg with scientists from the United Kingdom, Belgium, Germany, France, Switzerland and Northern Rhodesia at the invitation of the Pneumoconiosis Research Unit of the South African Council for Scientific and Industrial Research.

In addition to giving a series of papers, the delegates visited several uranium mines and their medical clinics in an attempt to solve the African pneumoconiosis problem from both a research and clinical standpoint.

Dr. Vorwald's itinerary included a visit to Dr. Albert Schweitzer's clinic in North Africa and other medical installations in New Delhi and Bombay, India, and Tokyo, Japan. He gave a lecture at the University of California on "Occupational Pulmonary Diseases" upon his return this month.

* * *

Thirty members of the Southern Gynecological and Obstetrical Travel Club attended a special two-day program at The University of Michigan Medical Center, February 2 and 3. The Department of Obstetrics and Gynecology was host to the group. Both operative and lecture programs were presented, with meetings held in the Women's Hospital and the Rackham building. Club members tour the country and visit leading Medical Centers specializing in their field of interest.

* * *

Appointment of five clinical associates to the staff of The University of Michigan Medical School's Department of Pediatrics was approved by the Regents Friday, January 16, 1959. The five appointees will have the

privilege of private in-patient care at University Hospital and also will take part in the teaching program of the department. The appointments, all without salary, are for the period from September 1, 1958 to June 30, 1959.

* * *

Isadore Lampe, M.D., professor of radiation therapy in the University of Michigan Medical School, Department of Radiology, has been granted a sabbatical leave from June 15 to December 15, 1959. He will spend the six months visiting radiotherapeutic centers in Great Britain, France, Denmark, Norway, Sweden, Canada and the United States.

* * *

Frank Whitehouse, Jr., M.D., instructor in the Department of Bacteriology, was granted leave for three months from January 1 to March 31, 1959, without salary. During this period, he has been in charge of the dental course in bacteriology at The Ohio State University.

* * *

The American Association of Railway Surgeons will hold its 71st Annual Meeting at the Drake Hotel, Chicago, on Thursday, Friday and Saturday, April 16, 17 and 18, 1959. This meeting will be held jointly with the Surgeons of the Chicago & North Western Railway.

Panel discussions will be held on "Peripheral Vascular Diseases" and on "Gastric Lesions." There will be other papers on gastroenterology and two papers on pulmonary lesions. Problems in the management of pancreatitis and melanomas will be given. Present day evaluation of antibiotics and the dissemination of cancer cells by radical surgery should prove extremely interesting. Other papers will deal with dermatological, neuropsychiatric, orthopedic, and medical-legal problems.

* * *

The Association of American Physicians and Surgeons, representing the nation's physicians in medical economics, public relations, legislation and freedom, will hold its sixteenth annual meeting of the Assembly and Delegates at Fort Worth, Texas, April 2, 3 and 4, 1959.

Ten speakers will be presented during the three days. The sessions will be presided over by Mal Rumph, M.D., President of AAPS, whose home is in Fort Worth. Some of the distinguished speakers to appear are: C. Hamilton Moses (Little Rock, Arkansas), President of the Arkansas Power and Light Company; Kent Courtney (New Orleans, La.), Publisher of The Independent American; Dr. Howard A. Nelson (Greenwood, Miss.), a past president of the Mississippi State Medical Association.

* * *

The Society of Nuclear Medicine will hold its sixth annual meeting at the Palmer House, Chicago, Illinois, Thursday, Friday, and Saturday, June 18-20, 1959. Members of the Society and guests desirous of participating in the scientific program should submit titles and abstracts, of no more than 250 words, to Donald W. Petit, M.D., Program Chairman, University of Southern California, School of Medicine, 1200 North State Street, Los Angeles 33, California.

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

Cough Control

. . . is possible without respiratory depression

USE AQUEOUS

'Guaiacodyl Injection'

it contains the most effective expectorant and does not depress respiration

useful for

chronic cough, dry unproductive cough, cough in the surgical patient, minus congestion, etc., because it produces rapid ventilation of the upper respiratory tract.

Available in 10 cc and 30 cc multiple dose vials

Meyer and Company, Inc., Detroit, Michigan

The first national Youth Conference on the Atom will take place in Atlantic City, N. J., on April 30 and May 1. The purpose of the conference is to present to the nation's most able high school science students and teachers an authoritative picture of the peaceful atom in all its various applications, and probably more important, to help advance interest in the study of science among the nation's youth.

Some 500 students and teachers from high schools all over the country will participate in the conference, and they will represent winners of local science fairs, special written examinations, and in other ways, the top science students in the country.

* * *

One of the highest student honors—selection by a medical honorary society to present reports on their own research at an open forum—went to eleven students at The University of Michigan Medical School, who delivered papers at the fifth annual Medical Student Research Forum held at the University of Michigan Hospital, February 17. The students chosen to present reports were: Paul Goodman, Marvin E. Klein, and Sheldon F. Markel, all of Detroit; Robert E. Richardson, East Lansing; Edward Dietrich, Jonesville; David DeJong, Holland; Richard Humphrey, Marshall; Burton Perry, Midland; and Conrad A. Proctor, Pontiac. Also selected were Ronald Wade, Toledo, Ohio, and Doris Thompson, Lake Charles, Louisiana.

Benjamin M. Lewis, M.D., of Wayne State University College of Medicine, has been chosen by the Lederle Medical Faculty Awards committee as recipient of one of their 1959-60 awards. An assistant professor of medicine, Dr. Lewis will receive $12,787.50.

The award is given to persons nominated by their school as having outstanding qualities in the teaching of preclinical or clinical subjects. The Lederle awards plan is designed to assist medical faculty in their work and further their teaching and research.

In addition to his teaching, Dr. Lewis is developing a technique by which the resistance of the pulmonary membrane to diffusion can be measured in heart failure.

* * *

The American Board of Obstetrics and Gynecology announces that the next scheduled examinations (Part II), oral and clinical, for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1960 examinations is August 1, 1959. Candidates may submit their applications at

For Men, Women and Children
501 Mutual Bldg.
28 West Adams

HACK'S FOOT NOTES
Shoe Information for the Profession
PUBLISHED BY THE HACK SHOE CO.

Children's Branches
19360 Livernois
and
16633 East Warren

VITAL STATISTICS – FOOT SECTION

Although countless thousands have complained, "My feet are killing me," there are no known compilations of the actual number of deaths attributable directly to the foot ailments involved in these cases.

Distracting, fatiguing, annoying, they surely are, but we doubt that they are directly fatal.

Blessed relief often follows proper fitting to correct shoes—by Hack!

any time before that date to Robert L. Faulkner, M.D., Secretary-Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *



JAMES W. LOGIE, M.D.

James W. Logie, M.D., Grand Rapids, has been appointed General Chairman of Arrangements for the 1959 MSMS Annual Session to be held in Grand Rapids the week of September 27, 1959.

* * *

The Annual Postgraduate Course in Cardiology of St. Francis Hospital, Roslyn, New York, will be held April 6-18, with the first week devoted to diagnostic and medical problems in the management of patients with congenital and rheumatic cardiac disorders. The second week will be devoted to cardiovascular surgery concentrating primarily on the same abnormalities.

For program, write the Administrator of the hospital.

* * *

The Frank E. Bunts Educational Institute, affiliated with The Cleveland Clinic Foundation in conjunction with the Cleveland Society of Pathologists, is offering a postgraduate course on Clinical Pathology, April 2 and 3, in the North Clinic Building, Euclid Avenue and East 93rd Street, Cleveland. Registration fee is $20. For information and advance registration, write Education Secretary, Frank E. Bunts Educational Institute, 2020 E. 93rd Street, Cleveland 6, Ohio.

* * *

The Research Committee of the National Society for the Prevention of Blindness invites requests for research grants in 1959. Grants will be made this spring for requests received prior to May 1. Inquiries should be addressed to Research Committee, National Society for the Prevention of Blindness, 1790 Broadway, New York 19, N. Y.

* * *

Jerome W. Conn, M.D., Professor of Internal Medicine at the University of Michigan Medical Center, Ann Arbor, has been elected to Honorary Fellowship in the American College of Surgeons.

Congratulations, Doctor Conn!

* * *

Robin C. Buerki, M.D., Detroit, and **John S. DeTar, M.D.**, Milan, were participants on the program of the recent Congress on Medical Education and Licensure in Chicago, February 7-10.

PM says:

"WHY TAKE CHANCES"

No practice is too small—no group too large to benefit from PM's management experience.

WRITE OR CALL FOR INFORMATION

PM • PROFESSIONAL • MANAGEMENT
Security Bank Building — Battle Creek
SAGINAW — GRAND RAPIDS — DETROIT

A COMPLETE BUSINESS SERVICE FOR THE MEDICAL PROFESSION
Affiliated Offices in Other Cities



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

The Fourteenth Annual Cancer Day of the Genesee County Medical Society is scheduled for Wednesday, April 22, Merliss Brown Auditorium, Hurley Hospital, Flint. The program includes:

"Extended Operations for Cancer of the Stomach and Colon and the Second Look"—Owen H. Wangensteen, M.D., Minneapolis, Minn.

"Melanoblastoma"—George T. Pack, M.D., New York, N. Y.

"The Current Status of Cancer Research"—Freddy Homburger, M.D., Cambridge, Mass.

"Some of the Surgical Pathologist's Cancer Problems" —Raffaele Lattes, M.D., New York, N. Y.

"The Current Status of Interstitial Irradiation"—Ulrich Henschke, M.D., New York, N. Y.

"Head and Neck Cancer as Seen in the Oral Cavity" —Danely P. Slaughter, Chicago, Ill.

* * *

A course on "The Technique of Anorectal and Sigmoidoscope Examination" is being offered by the Department of Surgery, Wayne State University College of Medicine, on Wednesday afternoon, April 15, and Thursday, April 16. Lectures, demonstrations, and panel discussion practical clinics at Receiving, Harper and Grace Hospitals, are limited to fifteen persons. Registration fee is $25. Make advance registration to Registrar's Office, Wayne State University College of Medicine, 1401 Rivard, Detroit 7.

The Eighth Congress of the Pan-Pacific Surgical Association will be held in Honolulu, Hawaii, September 28 through October 5, 1960. For information and brochures, write F. J. Pinkerton, M.D., Director General of the Pan-Pacific Surgical Association, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

* * *

The 1959 meeting of the American Goiter Association is scheduled for April 30-May 1-2 at the Drake Hotel, Chicago. For information, write John C. McClintock, M.D., Secretary, 149½ Washington Avenue, Albany 10, New York.

* * *

Lester P. Dodd, Detroit, MSMS Legal Counsel, spoke to a joint meeting of the Monroe County Medical Society and the Monroe County Bar Association on February 3. His subject was "The Basic Professions—Interdependent."

* * *

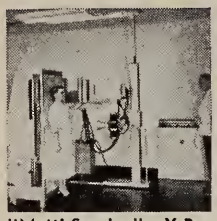
M.D. Locations, through December 31, 1958:

Placed by Michigan Health Council—Allan S. Hubacker, M.D., Frankfort; Robert C. Rood, M.D., Ionia.

Assisted by Michigan Health Council—Gerald W. Morris, M.D., Mt. Clemens.

* * *

Business Activities Tax.—The Michigan Department of Revenue reports that returns have been mailed to all registered taxpayers. These are due March 31, 1959.



"Multi-Service" X-Ray Unit. 300, 200, 100 Ma.

More for Your Money

in This Remarkable

Full-Wave X-Ray Unit

200-MA. UNIT FOR NO MORE THAN THE PRICE OF COMPARABLE 100-MA. UNITS

Full Wave Rectified (4 X-Ray Valve Tubes)
Double-Focus Rotating Anode Tube
100 KVP Available at ALL Ma Settings
Fully Automatic Control
Fluoroscope-Mounted Hand-Tilt Table
Full-size 12" x 16" Fluoroscopic Screen
Choice of Floor-Rail-Mounted or Floor-to-Ceiling-Mounted Tubestand
9-Position Motor-Driven Spot Film Device Available
Motor Drive for Table Available
Two-Tube Operation if Desired
UNMATCHED in HIGH QUALITY of Design, Efficiency, Workmanship and Materials

By Comparison this Fischer Unit is the Greatest Value in the X-Ray Industry

H. G. FISCHER & CO.
OF DETROIT
21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE. 7-4140

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY
Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

Any person having gross receipts in excess of $20,000 annually from any source is subject.

Check with your accountant to be sure you are complying with the law and filing returns, so you can avoid the 25 per cent penalty.

Any questions should be addressed to the Michigan Department of Revenue, Tussing Building, Lansing, Michigan.

* * *

Short refresher courses in pediatrics will be given during May and June by the Children's Hospital of Philadelphia and by the Graduate School of Medicine, University of Pennsylvania. For information write Irving J. Wolman, M.D., 1740 Bainbridge Street, Philadelphia 46, Pa.

* * *

The Wayne State University College of Medicine Clinic Day and Alumni Reunion is scheduled for Wednesday, May 13, at the Pick-Fort Shelby Hotel, Detroit. Sixteen ten-minute papers plus a panel will be presented by members of the faculty of the College of Medicine. Reception and banquet will follow the meeting. Reservations for the banquet and dance at $7.50 per person may be mailed to C. Jackson France, M.D., 17712 Mack, Detroit.

* * *

The Michigan Epilepsy Center and Association has a new brochure and index card describing its services. A copy will be mailed soon to every member of the Michigan State Medical Society.

* * *

The Seventh Bahamas Medical Conference will be held at The British Colonial Hotel, Nassau, Bahamas, March 30 to April 11. Make reservations by writing Bahamas Conferences, P.O. Box 4037, Fort Lauderdale, Florida. Participants in the conference and their families enjoy the special hotel rates, provided reservations are made directly and not through travel agents.

When making hotel reservations, a check in the amount of $75.00, payable to the Bahamas Conference, should be sent. This is the registration fee, not a deposit on the hotel bill.

* * *

Mrs. Lucy W. Bartlett was honor guest at the annual meeting of the Muskegon County Medical Society. Mrs. Bartlett was recognized for eleven years of service as executive secretary of the Society. The December issue of *The Bulletin* was dedicated to Mrs. Bartlett, widow of the late Hubert Bartlett, M.D.

* * *

Ruth E. Wagner, M.D., South Oakland County's first woman physician, is Michigan's Medical Woman of the Year. Doctor Wagner, of Royal Oak, was given the award November 16 during the American Medical Women's Association convention in Washington, D. C.

* * *

Harry M. Nelson, M.D., Detroit, chairman of the Michigan Cancer Co-ordinating Committee, has been appointed as chairman of the Committee on Registries and Central Registries of the American College of Surgeons Committee on Cancer. Doctor Nelson is also a

member of the Executive Committee of the ACS Committee on Cancer.

* * *

O. A. Brines, M.D., Detroit, will address the Lenawee County Medical Society, March 31, at Adrian, on the subject: "Lung Cancer and the Effect of Cigarettes." Dr. Brines, Professor of Pathology at Wayne State University College of Medicine, will present his talk under the aegis of the Michigan Cancer Co-ordinating Committee.

* * *

Michigan Rural Health Conference will be held Wednesday and Thursday, April 8 and 9, at Kellogg Center, East Lansing. Safe roads to health—the medical aspects of highway safety and management of the injured will be discussed during the "Professional Day" program of the 12th Annual Michigan Rural Health Conference, Thursday morning, April 9, 10:00 a.m. to 12:00 noon.

Program

"Medical Aspects of Highway Safety"
John R. Rodger, M.D., Bellaire, Chairman, MSMS Committee on Study of Prevention of Highway Accidents;
William A. Mann, Ed., D., East Lansing, Associate Professor, Highway Traffic Safety Center, Michigan State University; and
John O. Moore, New York, Director, Automotive Crash Injury Research, Cornell University

"Chest Injuries"
Herbert E. Sloan, Jr., M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Head Injuries"
Richard C. Schneider, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Injured Extremities"
Robert W. Bailey, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

"Abdominal Injuries and Shock"
Thomas C. Flotte, M.D., Ann Arbor, Associate Professor of Surgery, University of Michigan

The speaker for the annual banquet, Wednesday evening, April 8, is Arthur S. Flemming, of Washington, D. C., Secretary of Health, Education and Welfare.

Harry A. Towsley, M.D., Ann Arbor, is general chairman of the meeting. The Conference is sponsored by the Michigan Foundation for Medical and Health Education and co-sponsored by the Michigan Health Council and more than 100 other health organizations.

* * *



LAWRENCE REYNOLDS, M.D.

Lawrence Reynolds, M.D., of Detroit, received an additional honor on February 6, 1959, when he assumed the presidency of the American College of Radiology at the Charlottesville, Virginia, meeting.

The thirty-sixth President of the ACR is chairman of the Department of Radiology, Harper Hospital, Detroit, and has been longtime editor of the *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.*

Congratulations, Doctor Reynolds!



Michigan doctors who participated in the scientific program at the AMA Tenth Clinical Meeting in Minneapolis, December 2-5, 1958, included: Wm. H. Beierwaltes, M.D., Ann Arbor; M. A. Block, M.D., Detroit; B. E. Brush, M.D., Detroit; Russell N. DeJong, M.D., Ann Arbor; W. L. Lowrie, M.D., Detroit; W. E. Redfern, M.D., Birmingham; John W. Sigler, M.D., Detroit; and John M. Weller, M.D., Ann Arbor.

The following MSMS members took part in the scientific exhibit: Ronald C. Bishop, M.D., Ann Arbor; J. B. Bryan, M.D., Detroit; Frank Cox, Jr., M.D., Detriot; H. L. Johnson, M.D., Detroit; E. A. Kish, M.D., Detroit; Donald R. Krost, M.D., Ann Arbor; W. L. Lowrie, M.D., Detroit; Glenn Moore, M.D., Flint; Hubert C. Peltier, M.D., Kalamazoo; E. L. Quinn, M.D., Birmingham; W. E. Redfern, M.D., Birmingham; John W. Sigler, M.D., Detroit; Harold L. Upjohn, M.D., Kalamazoo; F. W. Whitehouse, M.D., Detroit; and Franklin V. Wade, M.D., Flint.

Other Michigan doctors who attended the recent AMA meeting are: Donald T. Anderson, M.D., Iron Mountain; Warren W. Babcock, M.D., Detroit; D. R. Ballard, M.D., Dearborn; Ralph Blocksma, M.D., Grand Rapids; Beatrice Bolan, M.D., Marquette; Peter Brachman, Jr., M.D., Allegan; William Bromme, M.D., Detroit; Louis Carbone, M.D., Detroit; Doris E. Dahlstrom, M.D., Kalamazoo; Milton A. Darling, M.D., Detroit; John S. De Tar, M.D., Milan; George R. Eichler, M.D., USAF; George J. Falbisaner, M.D., Grand Rapids; Hilda A. Habenicht, M.D., Jackson; Wilfrid Haughey, M.D., Battle Creek; Willis H. Huron, M.D., Iron Mountain; William A. Hyland, M.D., Grand Rapids; O. J. Johnson, M.D., Bay City; Eldred H. MacDonell, M.D., Detroit; Robert L. Novy, M.D., Detroit; Carl J. Olson, M.D., Gladstone; Clarence I. Owen, M.D., Detroit; E. Theodore Palm, M.D., Crystal Falls; Grover C. Penberthy, M.D., Detroit; Earl C. Potter, M.D., L'Anse; F. P. Rhoades, M.D., Detroit; D. L. Rousseau, M.D., Mt. Clemens; G. B. Saltonstall, M.D., Charlevoix; G. W. Slagle, M.D., Battle Creek; and Robert E. Wetterstroem, M.D., Northville.

* * *

Medical Television Shows produced by Michigan Health Council:

1958

December 7—Skin Disease and Veterinary Medicine—(Film—"Dermatology and Veterinary Medicine")

December 14—Geriatrics—(Film—"Geriatrics")

December 21—Tuberculosis Christmas Seals—(Film—"For Within Man's Power")

December 28—Traffic Safety—(Film—"According to the Record")

1959

January 4—"The Impact of Medical Progress"—(Film)

January 11—"Human Speech"—(Film)

January 18—"Hormones"—(Film)

January 25—Health Careers—(Films—"Medical Associates" and "Careers in Bacteriology")

* * *

DOCTORS DAY—UNIVERSITY OF MICHIGAN—MAY 16

Michigan's seven thousand physicians and surgeons are invited to attend a special "Doctors Day" to be held at The University of Michigan Medical Center on May 16.

The day-long program, first of its kind to be held at the University, will include special exhibits, lectures, clinical tours and closed-circuit TV broadcasts of surgical techniques.

Chairman of the planning committee is Earl F. Wolfman, Jr., M.D., of the Medical Center staff. Gilbert B. Saltonstall, M.D., president of the Michigan State Medical Society, has accepted honorary chairmanship for the event.

Tour of New Medical Center

According to Dr. Wolfman, the purpose of "Doctors Day" is to establish a special day in which doctors, alone, will have an opportunity to see the resources of the U-M Medical Center. "Also," he said, "we hope to encourage a closer personal association between physicians throughout the state and the professional staff of the Center."

The "Day" will begin at 9 a.m. with welcoming talks by A. C. Furstenberg, M.D., dean of the University of Michigan Medical School, and A. C. Kerlikowske, M.D., director of University Hospital.

Following luncheon in the hospital, the visitors will select any of the special programs being arranged by each of the major clinical services.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 1, Number 3. Symposium on Special Diagnostic Aids: Edited by C. Paul Hodgkinson, M.D. Symposium on Abnormal Uterine Bleeding: Edited by John I. Brewer, M.D. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1958.

This book is the third in a series on Clinical Obstetrics and Gynecology. The subject matter is divided into Abnormal Uterine Bleeding which is edited by John I. Brewer, M.D., and Special Diagnostic Aids which is edited by C. Paul Hodgkinson, M.D. Although there is some repeating of subject matter of the previous books in this series, the diagnostic aids are grouped to give a complete summary of the methods of diagnosis. The first of these two symposia has excellent chapters on the Development of Uterine Cancer and its diagnostic procedures, Culdocentesis, Gynogram, Placentography, Cytology and the Papanicolaou Smear and Biopsy. These are very complete and of interest not only to the specialist, but also to the general practitioner. The second symposium gives a complete picture of Abnormal Uterine Bleeding from infancy and childhood through the post-menopausal period. This series is one of the best texts for the busy practitioner to keep abreast of modern thinking in gynecology.

J.R.P.

CIBA FOUNDATION COLLOQUIA ON AGING. Volume 4. Water and Electrolyte Metabolism in Relation to Age and Sex. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A. 85 illus. Boston: Little, Brown and Company, 1958. Price, $8.50.

The developing organism is presented with time out for senescence and disease. More than a score of consultants are quoted. Their broad fields range from genetic control of electrolyte metabolism in the erythrocytes to the hormonal aspects of water metabolism, relating to age and sex, with reference to sodium and potassium elimination.

Electrolytes enter into practically every reaction that takes place in the body. The knowledge of a few is pooled for the many. The ready corrections of water excesses and deficits result from specific response systems for diuresis and water intake. Plasma osmolarity is significantly higher than that of extracellular fluid. With electrolyte imbalance the decrease in cellular water is reflected in a rise of extracellular fluid. The active transport of sodium is linked to that of potassium.

Water deficiency, or sodium excess, produces hypernatraemia with the possibility of tubular dysfunction in the dehydrated infant. Water excess, or sodium deficiency, produces hyponatraemia. Fluid volume and electrolyte control are notoriously inefficient in neonates. Total body water relative values decrease in old age for both sexes, with the male holding the higher content.

The composition of the fat-free body tends to achieve an independence from its environment, once chemical maturity is reached. The experts attempt to outguess the human organism in reflecting age upon the body's





Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

tolerance for fasting, thirsting, overloading with water and electrolytes.

A healthy adult, partaking of a "normal" diet, produces more non-volatile anions than cations. The "surplus anions" are excreted by the kidney, employing combinations with titratable hydrogen ions or ammonium salts. As age advances, the discrete renal function decreases with nephron diminution. Yet, if the physical demand is not too insulting, the elderly kidney may still regulate both volumes and concentrations quite satisfactorily.

Senescence, however, is a deterioration in homeostasis. Thus, in nephron disease, we may expect renotrophic stimuli, overactivity of the adrenal cortex and hypertension.

With increasing age, the functional capacity of both lungs and kidneys decline. Respiration is embarrassed by further rigidity of the chest wall. In congestive failure, the impaired renal function serves as the genesis of abnormal water and electrolyte metabolism. Great clinical significance should be attached to cellular potassium depletion. Chemical analysis may be obtained by muscle biopsy specimens. Potassium salts should be administered, especially when mercurial diuretics are employed. Clinical magnesium depletion in man is rare.

The human body is to be congratulated upon its ability generally to detect a deviation from a normal condition. However, in later years, even Shakespeare recognized that "age hath drunk man's blood and filled his brow with lines and wrinkles."

TODAY'S CHALLENGE!

Doctors are generally agreed that the best hope of saving lives from cancer is early detection and prompt, proper treatment. Great progress has been made in the last ten years: the saving now of 1 in 3 compared with 1 in 4, as more and more people are seeing their doctors *in time*.

But with present knowledge and existing facilities, it is possible *today* to save *1 in 2* cancer patients. This is the target of the American Cancer Society's professional and public education programs.

The Society offers doctors a variety of free services: *Literature:* two bi-monthly magazines; *Films:* 200 available on loan, including a series of kinescope films covering practically every clinical phase of cancer; *Slides:* (In color) Characteristic early lesions in sites of greatest incidence; *Exhibits:* for medical meetings and conventions, on special aspects of diagnostic and therapeutic problems.

In its public education program, the Society uses every effective communication medium to urge people to have annual health checkups and to go to their doctors promptly at the appearance of a danger signal.

The challenge will be met. As more and more doctors' offices become "cancer detection centers," and as more and more people see their physicians regularly, the closer will come the day when half of our cancer patients will be saved. The know-how for saving the remaining half is still being sought in our research laboratories. Ultimately that challenge, too, will be met.

Michigan Division, Inc.
1205 E. Saginaw Street
Lansing, Michigan

Southeastern Michigan Division
4811 John R. Street
Detroit, Michigan

AMERICAN CANCER SOCIETY

The HAVEN SANITARIUM, Inc.
Rochester, Michigan
In operation since 1932

M. O. Wolfe, M.D.
Director of Psychotherapy

Ralph S. Green, M.D.
Clinical Director

Graham Shinnick
Manager

A private psychiatric hospital for the intensive treatment of mental and emotional illnesses.
Telephone: OLive 1-9441

Don't let the molecules alarm you. There is much lively human discussion at the termination of each chapter.

C.H.R.

LESIONS OF THE LOWER BOWEL. By Raymond J. Jackman, M.D., M.S. in Proctology, Head of the Section of Proctology, Mayo Foundation, Graduate School, University of Minnesota, Rochester, Minnesota. 347 pages. Illus. Price $15.50. Springfield, Illinois: Charles C Thomas, 1958.

This book presents, for the first time in words and color photographs, a rather complete story of the common and uncommon lesions of the lower bowel. Although the major emphasis is on diagnosis, there is enough ancillary information to give the reader a fairly comprehensive picture of this field of medicine. Written by a clinician of long experience and excellent judgment, the book is a succinct and honest appraisal of the subject. In an era when proctosigmoidoscopy is assuming its proper role as a diagnostic aid, this volume can be recommended to all physicians. Every chapter is loaded with nuggets of important clinical data that few physicians would be able to glean for themselves.

It is difficult for this reviewer to single out certain chapters for special comment. The chapter on the Technic of Proctoscopy, however, could be called one of the highlights of the book. The Color Atlas which contains a rare and beautiful collection of clinical photographs is outstanding and should be studied by the student and clinician alike.

As a fellow proctologist, this reviewer wishes to thank Dr. Jackman for this meritorious contribution to proctologic literature. This book can be recommended highly to all physicians and students interested in intestinal diseases.

William C. Bernstein, M.D.

AMID MASTERS OF TWENTIETH CENTURY MEDICINE; A PANORAMA OF PERSONS AND PICTURES. By Leonard G. Rowntree, M.D. 684 pages. Illus. Price, $11.50. Springfield, Illinois: Charles C Thomas, 1958.

This is an excellent résumé of Dr. Rowntree's experience during his active years in medicine. It is particularly interesting to physicians in Minnesota because of the large amount of space devoted to the time he spent both as Professor of Medicine at the University of Minnesota and Chief of the Division of Medicine at Mayo Clinic.

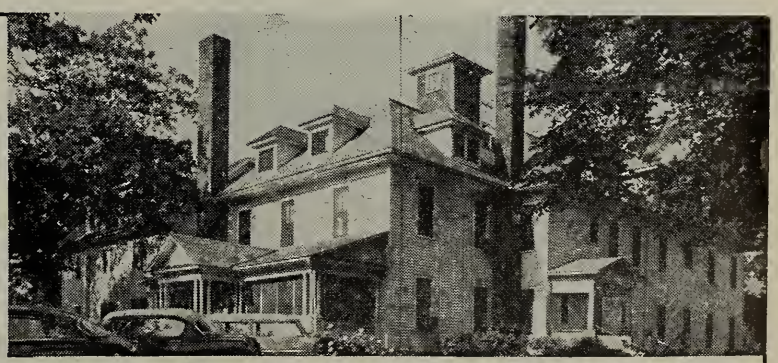
Dr. Rowntree exemplifies the truly great physicians whose knowledge was not limited to medicine alone but enveloped all of the allied fields as well as the humanities.

The book is well illustrated, the paper is excellent, and the printing of the usual high quality one expects from the Thomas publishers.

This book makes pleasant reading and relates many interesting and personal anecdotes concerning the great of this century.

John F. Briggs, M.D.

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

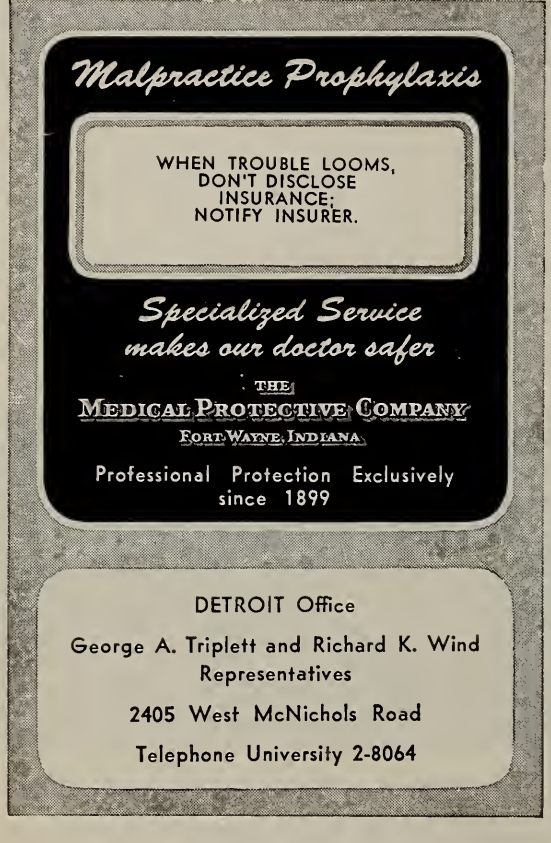
Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

WANTED ASSOCIATE: Michigan growing General Practice. Fine community of 3,000, short drive from modern 80-bed hospital. Full hospital privileges can be expected, commensurate with training and ability. Easy driving distance from universities and metropolitan areas. Reply: Box 4, 606 Townsend Street, Lansing 15, Michigan.

MICHIGAN DEPARTMENT OF MENTAL HEALTH is interested in obtaining additional staff physicians who are willing to accept the challenge of providing the best medical treatment available for its charges. Excellent opportunities for energetic, talented, ambitious medical doctors. Clinical supervisory positions as well as administrative positions available to those who meet the necessary qualifications. Salary to $16,000 depending upon qualifications. Many job benefits, including sick and annual leave, retirement, longevity compensation as well as merit increases. For further information contact V. A. Stehman, M.D., Deputy Director, Cass Building, Lansing, Michigan.

WANTED: Pediatrician, Board-eligible or certified for partnership with 35-year-old pediatrician. Practice established five years. In western Michigan—excellent living and recreational facilities. Write: Box 3, 606 Townsend Street, Lansing 15, Michigan.



FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

DIRECTOR OF INTERNAL MEDICINE—Board certified—to head department of 500-bed general hospital, located 17 miles west of downtown Detroit. Salary range $15,746-$17,066 (effective June 29, 1959). Contact: Wayne County Civil Service Commission, 628 City-County Bldg., Detroit 26, Michigan.

LOCUM TENENS WANTED—Third year resident in Internal Medicine at University Hospital would like vacation work in practice of Internal Medicine during June 1959. Write: G. Gwinup, M.D., 1461 University Terrace, Ann Arbor, Michigan.

SOUTHWESTERN MICHIGAN town of 6000, close to Chicago. $40,000 annual gross. Cost of equipment and supplies. Leaving to specialize. Will introduce. Write: Box 7, 606 Townsend Street, Lansing 15, Michigan.

IONIZING RADIATION

(Continued from Page 448)

ionizing radiation to register on forms available from the department. With each registration form, the department includes a copy of the regulations.

Although the regulations have been in effect for only a little more than a year, the department has experienced good co-operation and has made excellent progress toward registration of all sources of ionizing registration. The accompanying table summarizes the results as of the end of 1958. Based upon the estimated number of users of x-ray equipment, 100 per cent of the industries have registered their equipment, about 90 per cent of the dentists and chiropracters, about 80 per cent of the M.D.'s and D.O.'s, about 60 per cent of the hospitals, about 45 per cent of the chiropodists, and about 30 per cent of the veterinarians.

An interesting sidelight is the fact that, on the evidence of a sample survey, the number of fluoroscopic x-ray machines in shoe stores has dropped sharply since the regulations were put into effect. The regulations prohibit the use of these machines for any person under the age of eighteen.

In Lansing

HOTEL OLDS

Fireproof

400 ROOMS

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 APRIL, 1959 NUMBER 4

Contributors to This Issue



J. H. Ahronheim, M.D.



F. H. Bethell, M.D.



O. A. Brines, M.D.



K. E. Corrigan, Ph.D.



O. S. Culp, M.D.



Helen O. Curth, M.D.



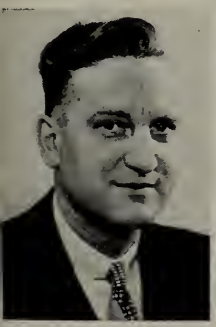
Henrietta S. Hayden, Ph.D.



D. L. Hinerman, M.D.



Morris Leider, M.D.



J. E. Lofstrom, M.D.



Hermann Pinkus, M.D.



T. L. Shipman, M.D.

Table of Contents

Cancer Research at the University of Michigan
Howard B. Latourette, M.D. 563

Cancer Research at Wayne State University College of Medicine
Osborne A. Brines, M.D. 566

Lung Cancer Detected by Mass Chest X-Ray Survey
Charles R. Williams, M.D., and *James E. Lofstrom, M.D.* 568

Dermatoses and Malignant Internal Tumors
Helen O. Curth, M.D. 572

Therapy of Skin Cancer in the Light of Newer Histobiologic Concepts
Hermann Pinkus, M.D. 576

Significance and Treatment of Prostatic Nodules
Ormond S. Culp, M.D. 585

"Yesterday's Hopeless—Now Curable" in Dermatology
Morris Leider, M.D. 595

Surgical Probe Scintillation Counters
Kenneth E. Corrigan, Ph.D., and *Henrietta S. Hayden, Ph.D.* 598

Can You Answer Your Patients' Questions About Radiation?
Thomas L. Shipman, M.D. 608

Cytologic Screening of Healthy Women in the Smaller Community
J. H. Ahronheim, M.D. 611

Advances in the Treatment of Leukemia
F. H. Bethell, M.D., M. C. Meyers, M.D., R. C. Bishop, M.D., and *H. H. Spencer, M.D.* 614

Medical Education at the University of Michigan
Dorin L. Hinerman, M.D., H. Waldo Bird, M.D., and *John M. Weller, M.D.* 620

Detroit Surgical Association
Meetings of September 25, October 28 and November 25, 1958 623

President's Message 625

Editorial:
Every Physical Examination a Cancer Detection Procedure 626
Voluntary Health Insurance for the Aged 626
Hospital Care for the Aged 627
Cost per Member—$56.84! 628

Michigan's Department of Health 630
In Memoriam 632
Legal Opinion 638
News Medical 640
The Doctor's Library 662

New Medical Science Buildings Opened 496
Blue Shield National Conference 508
Cancer Comment 516
You and Your Business 526
PR Report 540
AMA Washington Letter 546
Editorial Comment 548

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 APRIL, 1959 NUMBER 4

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
G. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D.....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

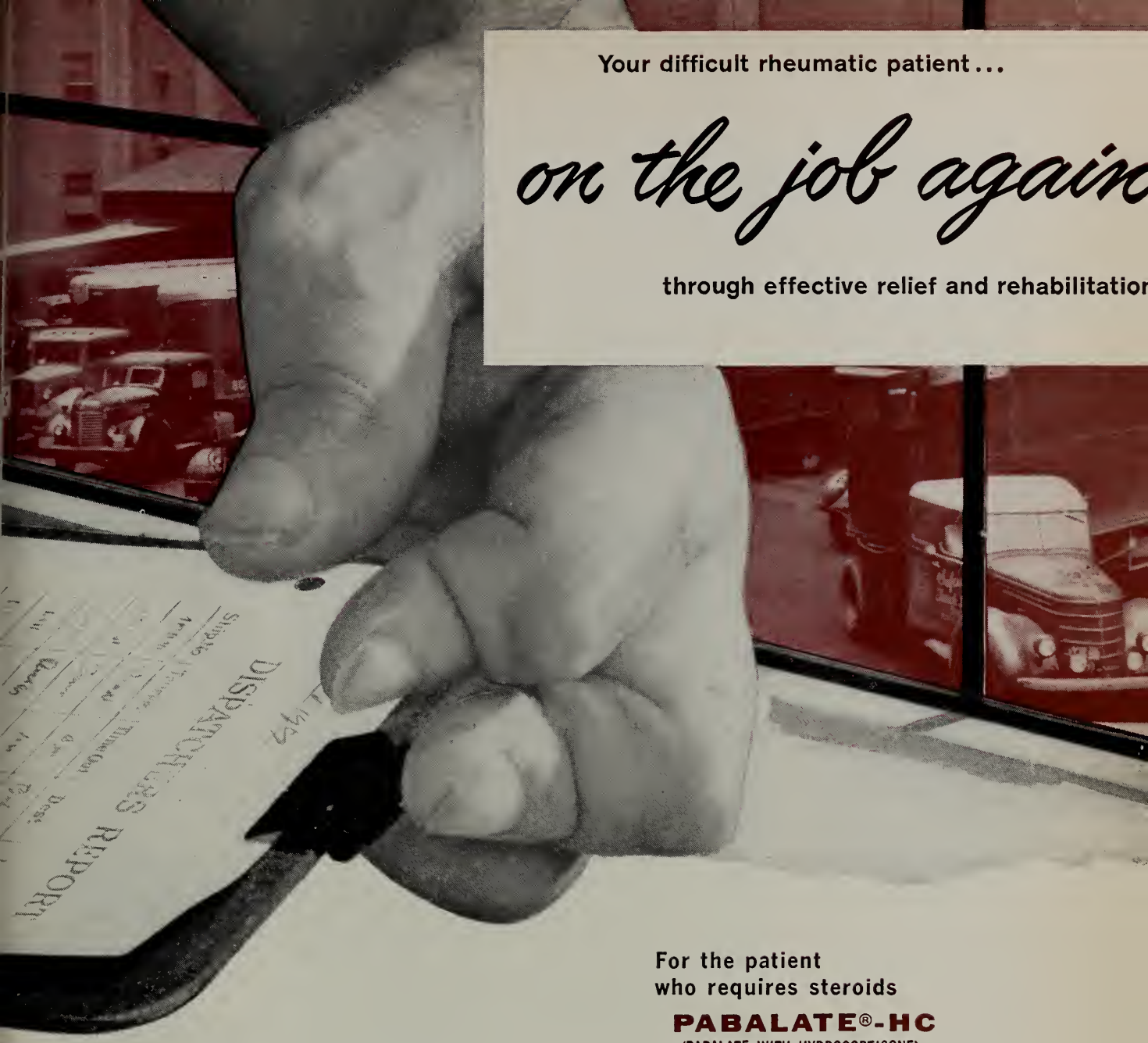
W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
R. L. Novy, M.D., Detroit.....1960
W. D. Barrett, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

W. W. Babcock, M.D., Detroit.....1959
E. F. Sladek, M.D., Traverse City.....1959
O. J. Johnson, M.D., Bay City.....1959
L. R. Leader, M.D., Detroit.....1960
Wm. Bromme, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit



Your difficult rheumatic patient...

on the job again

through effective relief and rehabilitation

For the patient who does not require steroids

PABALATE®

Reciprocally acting nonsteroid antirheumatics . . . more effective than salicylate alone.

In each enteric-coated tablet:

Sodium salicylate U.S.P.....0.3 Gm. (5 gr.)
Sodium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

or for the patient who should avoid sodium

PABALATE® - Sodium Free

Pabalate, with sodium salts replaced by potassium salts.

In each enteric-coated tablet:

Potassium salicylate .....0.3 Gm. (5 gr.)
Potassium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

For the patient who requires steroids

PABALATE®-HC

(PABALATE WITH HYDROCORTISONE)

Comprehensive synergistic combination of steroid and nonsteroid antirheumatics... full hormone effects on low hormone dosage . . . satisfactory remission of rheumatic symptoms in 85% of patients tested.

In each enteric-coated tablet:

Hydrocortisone (alcohol) ..... 2.5 mg.
Potassium salicylate ..... 0.3 Gm.
Potassium para-aminobenzoate.. 0.3 Gm.
Ascorbic acid .....50.0 mg.

PABALATE® Robins PABALATE®-HC

For steroid or non-steroid therapy: SAFE DEPENDABLE ECONOMICAL

A. H. ROBINS CO., INC. RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

New Medical Science Buildings Opened

Exhibits and demonstrations, ranging from monkey morphine addicts to laboratory research on individual cells, went on public display Sunday afternoon, February 22, when The University of Michigan Medical Center held community "open house" in the new $8½ million buildings of the Medical School and School of Nursing.

More than twenty-five special exhibits were manned by faculty members of the various departments to give visitors a first-hand picture of the training and research activities that go into the education of Michigan's future doctors and nurses.



New Medical Science Building

Students in medicine and nursing served as escorts to show the public through the new buildings from 1 to 5 p.m.

The Medical Sciences building opened last fall and now houses the Departments of Biological Chemistry, Pathology and Pharmacology. Located at the northwest corner of the U-M Medical Center, the structure is the fifth building occupied by the Medical School since its establishment 109 years ago.

During the open house, biochemists displayed a research laboratory in full operation, probing unknown virus effects on the chemical processes of a living cell.

Pathologists opened their tissue laboratory, where they diagnose surgical specimens from the operating rooms.

In the Pharmacology Department, visitors saw some of the 250 Indian macaca monkeys which are used in studying narcotic addiction. The department serves as the nation's screening center for morphine-like drugs.

Visitors to the School of Nursing witnessed actual demonstrations of modern nursing care, the preparation of special diets and the operation of a new "push-button" hospital bed.

A cancer display, a newly-developed germ-free laboratory, and an apparatus which charts the effect of different drugs on a living turtle heart were among other features to be seen during the guided tour.

And for the first time the public was able to visit the U-M animal quarters where scientists are making an electroencephalograph (brain wave) recording from a live monkey.

The new home of the Medical School consists of three interconnecting buildings linked to the University Hospital by an enclosed bridge. It contains over 123,000 square feet of teaching, research and office space, including the administrative quarters of the two schools.

Among the major teaching facilities are two amphitheaters, seating 250 students each, a museum and forty-one general and special-purpose laboratories.

The first medical building was erected in 1850 on the east side of the main campus at a cost of $9,991. In 1903, West Medical opened at a cost of $137,000 and this was followed in 1926 by East Medical, built at a cost of $858,283.

Last summer, West Medical and the old Pharmacology building were vacated when the departments moved into the modern building. The Pharmacology building has since been razed, and the University is seeking funds to renovate West Medical for use by the School of Natural Resources.

Future plans call for a $9-million addition to the new Medical Sciences Building. This will be joined to the west end of the new structure and will provide space for the departments of anatomy, physiology and bacteriology which are currently located in East Medical.

History of the Medical School

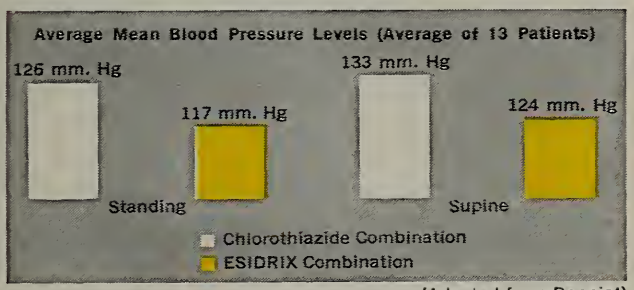
Although authorized by a territorial Act of 1817 and the first state legislature in 1837, the Medical School's first classes began with the opening of a new building in 1850. Until 1891, the faculty elected a "President" of the Medical De-

(Continued on Page 506)

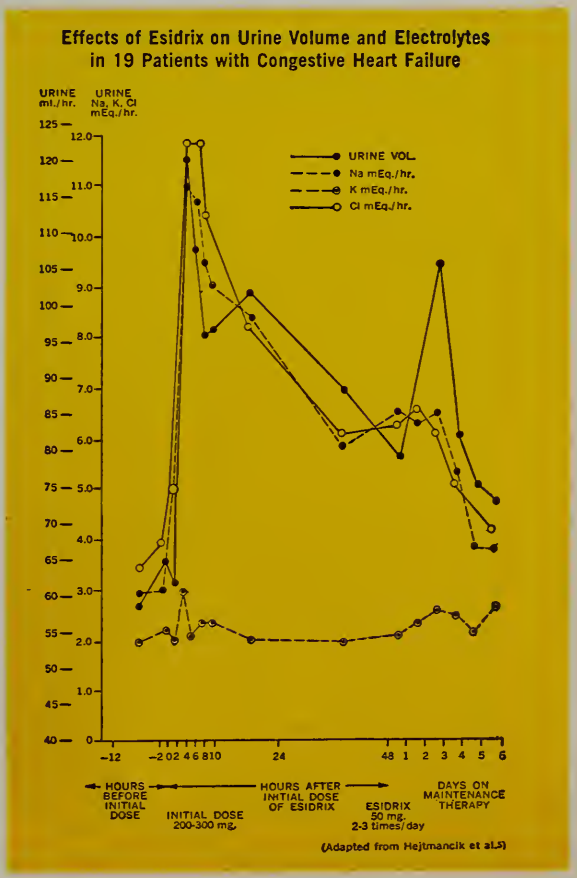
Esidrix .T.M.

(hydrochlorothiazide CIBA)

Produces greater average reduction in blood pressure: Eleven of 13 hypertensive patients[4] were treated initially with a chlorothiazide-mecamylamine-reserpine combination (10 patients had 1000 mg. and 1 patient 500 mg. chlorothiazide daily); 1 patient had been treated with hydralazine and 1 had no previous medication. Nine were then transferred to an Esidrix-mecamylamine-reserpine combination and 4 to an Esidrix-reserpine combination for periods of 3 to 7 weeks (12 patients had 100 mg. and 1 patient 50 mg. Esidrix daily). Average mean blood pressure levels were recorded in the standing and supine positions. As shown in graph below, left, there was a further drop in blood pressure after patients were transferred to Esidrix.



(Adapted from Dennis[4])



Exceptional safety . . . reduced likelihood of electrolyte imbalance: While Esidrix markedly increases sodium and chloride excretion, it has far less effect on excretion of potassium (see chart at right) and bicarbonate. Hence, there is little likelihood of disturbing electrolyte balance when recommended procedures are followed.

DOSAGE: Esidrix is administered orally in an average dose of 75 to 100 mg. daily, with a range of 25 to 200 mg. A single dose may be given in the morning or tablets may be administered 2 or 3 times a day.

SUPPLIED: *Tablets,* 25 mg. (pink, scored); bottles of 100 and 1000. *Tablets,* 50 mg. (yellow, scored); bottles of 100 and 1000.

(Continued from Page 496)

partment. Then in an academic reorganization, Dr. Victor Vaughan became the first dean and served from 1891-1921. He was followed by Dean Hugh Cabot, 1921-30. The school funtioned without a dean until Dr. Frederick G. Novy held the office, 1933-35. Dean A. C. Furstenberg, the fourth dean, was appointed in February, 1935.

Buildings.—The first medical building was erected on the east side of the main campus at a cost of $9,991.84 and opened to the first class in the fall of 1850. The structure was 92 feet long, 42 feet wide and three stories high. Swelling enrollments created problems then as now, and in 1863 the Regents literally considered "raising the roof." But the following year, Ann Arbor citizens pledged $10,000 to support a new four-story addition, 60 feet by 60 feet.

At present, the Medical School occupies the overcrowded East Medical Building (housing the Departments of Anatomy, Bacteriology, Physiology) and the new area. Planned for the future is a $9-million addition to the new building. This will be built on the site occupied by Beale Residence and will bring all departments into this central location.

Educational Notes.—The original medical class in 1850 enrolled ninety-one students, making it considerably larger than the Literature College which enrolled sixty-four students that same year.

Women were first admitted to the Medical School in 1870. The welcome given the first class of eighteen women is perhaps reflected in a memo that passed from the medical faculty to the Regents:

"The medical co-education of the sexes is at best an experiment of doubtful utility, and not one calculated to increase the dignity of man, nor the modesty of women."

These "hen-medics," as they were called, held their classes separate from the men until 1881.

School of Nursing

In 1891 a two-year nursing program was established at the University. Administered first by the Medical School and later by University Hospital, the School of Nursing finally became an independent teaching unit within the University in February, 1941. At that time, both three-year and five-year programs were offered. Miss Reddig was appointed the first Dean of the School. An extensive curriculum revision occurred in 1952 and a 4-year program was introduced, leading to the degree of Bachelor of Science in Nursing. It combines nursing courses with studies of liberal arts and sciences. Graduates of the U-M Nursing Program have served in every war beginning with the Spanish-American War of 1898.

With a present enrollment of 690 students, this is the largest School of Nursing in the nation. Both faculty and students divide their efforts between "classroom" work and clinical experience in University Hospital.

Department of Biological Chemistry

The teaching of biochemistry (then called Physiological Chemistry) at the University of Michigan dates back to the appointment of Dr. Victor Vaughan in 1883. However, the actual Department of Physiological Chemistry was created in 1922. In 1935, its name was changed to Biological Chemistry.

Dr. Christensen is the second chairman of the department; his predecessor was Howard Bishop Lewis, Ph.D. Today, the department is the largest in the country.

Dr. Victor C. Vaughan was first professor of Physiological Chemistry and later Dean of the Medical School at the University of Michigan. Dr. Adam Arthur Christman made a critical advance in medico-legal work by developing a method for measuring carbon monoxide in the blood. Dr. Frederick George Novy was associated with Dr. Vaughan in the early development of "Physiological Chemistry." Dr. Howard B. Lewis was the first chairman of the Department, and one of the nation's outstanding teachers of biochemistry.

Department of Pathology

Chairman: A. James French, M.D., is the *fourth* person to occupy the independent chair of Pathology at the U-M Medical School. His predecessors were: Carl V. Weller, M.D., 1931-1956; Aldred Scott Warthin, M.D., 1903-1931; and Heneage Gibbes, M.D., 1888-1895. In the interim between Gibbes and Warthin, Pathology was directed by George Dock, M.D., head of the Department of Theory and Practice of Medicine. As a *subject* in the medical curriculum, however, Pathology dates back to January 10, 1850, and the appointment of Jonathan Adams Allen, M.D.

The Building

The Medical Science Building is actually made up of three interconnecting buildings, one being occupied by the School of Nursing, the second by the Department of Pathology (both with two floors above ground), and the third by the Departments of Biochemistry, Pathology and Pharmacology and Medical School Administrative offices (four floors above ground). The entire building is linked to University Hospital by an elevated, enclosed bridge 123,540 square feet.

Exterior walls of the structure are composed of face brick with back-up of common brick with lightweight aggregate concrete block and hollow tile furring. Building service utilities—water, gas,

(Continued on Page 514)

Cerumenex™
DROPS

For easy, safe, painless removal of ear wax—without instrumentation



Proved clinically effective in 4,464 (95.0 per cent) of 4,695 patients (ages 3 months to 83 years) with excess or impacted cerumen†

For patient convenience and economy, prescribe 'Cerumenex' Drops in the regular 15 cc. bottle, packaged with cellophane wrapped blunt-end dropper.

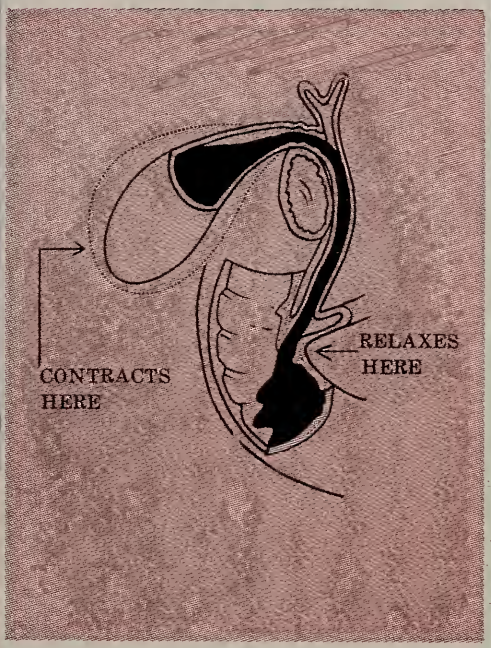
†Complete bibliography available on request

™ CERUMENEX CONTAINS CERAPON® 10.0% IN PROPYLENE GLYCOL WITH CHLOROBUTANOL 0.5% ® BRAND OF TRIETHANOLAMINE POLYPEPTIDE OLEATE-CONDENSATE U.S. AND FOREIGN PATENTS PENDING

PROBILAGOL™
LIQUID

cholecystokinetic-cholagogue action

Specifically designed for therapeutic and prophylactic management of dyspepsia and food intolerance



A unique cholecystokinetic-cholagogue, 'ProBilagol' provides prompt gallbladder evacuation, prolonged relief, safety, extreme palatability

Supply: Bottles of 12 and 6 fluid ounces.

™ PROBILAGOL D-GLUCITOL WITH HOMATROPINE METHYLBROMIDE, PURDUE FREDERICK

natural bowel corrective

Senokot®
TABLETS / GRANULES

IN CONSTIPATION



Assures bowel correction and rehabilitation because it "...acts in a way almost indistinguishable from the normal physiologic mechanism..."[1]

without mucosal irritation due to chemical contact

without incompatibilities to antacids and other medications

Supply: Tablets, small and easy to swallow, in bottles of 100. Granules, cocoa-flavored, in 8 and 4 ounce canisters.

1. Herland, A. L., Lowenstein, A.: Quart. Rev. Surg. Obst. & Gynec. 14:196 (Dec.) 1957

® SENOKOT: STANDARDIZED CONCENTRATE OF TOTAL ACTIVE PRINCIPLES OF CASSIA ACUTIFOLIA PODS. PURDUE FREDERICK

Blue Shield National Conference

The annual Blue Shield National Professional Relations Conference was held in Chicago, February 9-11, 1959. The theme of the conference was to co-ordinate American medicine's partnership with Blue Shield in extending the benefits of prepaid medical care.

The conference brought together a record total of more than 300 people, half of whom were physician trustees representing Blue Shield Plan governing boards and officers of twenty state medical societies, the executive secretaries of some twenty-five state and county societies and 130 Blue Shield Professional Relations personnel.

We can best express the work accomplished by a few quotations. Louis M. Orr, M.D., of Orlando, Florida, President-Elect of the American Medical Association:

"Let's stand together and stand united against the thrusts of big government into the medical care field, and equally important, let's step up the current vigorous program to provide realistic positive approaches to all phases of health care among all people, young or old." . . . "Blue Shield has been one of the first to pledge its all-out co-operation in working with the medical profession to do an effective job in providing medical care for the aged, especially the lower income group."

Donald Stubbs, M.D., of Washington, D. C., chairman of the Board of Directors of Blue Shield Medical Care Plans (the Blue Shield Commission):

"We've passed the point of no return in building voluntary health insurance in America—without Blue Shield, the freedom of medicine would be lost. Blue Shield and the American doctor are identical in their basic purposes. Medicine seeks to relieve human suffering, while Blue Shield stands for service at the fiscal level. For the doctor, Blue Shield represents a balance of his ethical ideals with the fiscal needs both of his patient and himself. Medicine has come to grips with the economy of our modern world through Blue Shield."

Frank L. Feierabend, M.D., of Kansas City, President-Elect of Blue Shield Medical Care Plans:

"Blue Shield must be a continuing answer to a continuing problem" and he appealed to the profession "to take the initiative, accept its responsibilities, and exert the leadership that the American people expect of their doctors."

Further excerpts from address by Dr. Louis Orr:

"For the first time in history, legislation of the Forand type would add health benefits to a Social Security program that now pays cash benefits based on the 'floor of protection' concept. This new principle would completely alter the nature of the program, and would open the door for evolution of a system of tax-paid health care for the entire nation. Indeed it would establish the principle that provision of medical care for any segment of the population, or all of it, is a federal function."

Dr. Feierabend again:

"We must have a plan that will provide medical care to at least 75 per cent of the public either on a complete service basis, or on a cash indemnity basis which is accepted on the service principle by the medical profession. . . . Whenever medical care has been taken over by the State, money was the common denominator which governed the service received by the public."

Max Lichter, M.D., chairman of Medical Care Insurance Committee of the Michigan State Medical Society:

"The development of prepaid medical care is as much a part of medical technologic advance as the development of any purely medical discovery; for without it, people would not have been able to voluntarily partake of that which became available; and with it, advance has been encouraged if only by the widespread voluntary utilization of the new things in medicine. And it is something which was devised by doctors."

Mr. Theodore Wiprud, Executive Director and Secretary of the Medical Society of the District of Columbia:

"In my opinion, medicine's future is much more uncertain than most doctors realize. It looks to me as though we are going to have a difficult time holding the line against objectionable third party intrusion. A successful and acceptable program of voluntary health insurance as I see it, is the only promising barrier to this eventuality. And when I speak of such a program I have Blue Shield primarily in mind. . . ."

Mr. Stephen F. Bonney, Deputy Director of Medical Surgical Care in Kansas City:

"Prepayment is here to stay and the profession needs an efficient, knowledgeable fiscal organization to aid it. . . . Blue Shield is not a third party but an integral part of the practice of medicine. . . . Blue Shield must follow the practice of medicine. It cannot lead it, and it cannot police it. . . . The success of Blue Shield means the preservation of the free practice of medicine."

Discussion groups of physician trustees, medical society executives and professional relations personnel of Blue Shield Plans concentrated their attention on ways and means of improving professional relations between the Plans and their sponsoring medical groups, and of getting the story of Blue Shield across to all the physicians.

The Michigan State Medical Society was represented at this conference by Warren Tryloff and William J. Burns of the Executive Office, and by Luther R. Leader, M.D., Howard Benjamin, M.D., G. T. McKean, M.D., John Wellman, M.D., and D. W. Thorup, M.D. Also by L. G. Goodrich, C. D. Moll, M.D., Thomas C. Paton,

(Continued on Page 514)

new erythromycin suspension

CITRUS-FLAVORED
ERYTHROCIN®
Ethyl Succinate
ORAL SUSPENSION

a new derivative of erythromycin designed especially for children

Never a flavor like this in an antibiotic suspension

A new achievement in pharmaceutical elegance—a ready-mixed stable suspension so sweet and good you can't tell it's "medicine." No bitterness, no unpleasant aftertaste—just pure, sweet citrus flavor.

Never an antibiotic better proved against everyday coccal infections

After millions of prescriptions, an unexcelled safety record. High, peak blood levels within one hour—plus nearly 100% effectiveness against coccal infections. And, unlike broad-spectrum antibiotics, Erythrocin is classed as a bactericidal antibiotic.

INDICATIONS: Against staph-, strep- and pneumococci. Especially useful when patients are allergic to penicillin or other antibiotics. DOSAGE: For children, 30 mg./Kg. per day. Adults, 1 to 2 Gm. daily, depending on severity of infection. SUPPLIED: in 60-cc., pour-lip bottles. Each 5-cc. teaspoonful represents 200-mg. of Erythrocin activity.

Abbott

®ERYTHROMYCIN ETHYL SUCCINATE, ABBOTT

(Continued from Page 508)

William Boyles, and James Foley, of Michigan Medical Service personnel.

* * *

While the medical society and its Blue Shield administrators have been attempting and arranging for further service to our patients, there has been newspaper publicity in Michigan. A week of special articles in the *Detroit Free Press,* a series of special articles by Robert S. Boyd. The first scare headline, four columns, read: *"Must Costs Keep Rising? Blue Cross Rate Race Is No Fun for Anyone."* This article went over onto the second page and included a graph showing the constant increase of rate. While it dealt with Blue Cross, the doctors and their responsibilities were included. The second article had a two-column heading: *"Blue Cross Tells Where the Dollars Go." "Eighty-nine percent of members hospital bills paid."* This article is a very fair exposition of Blue Cross position, how it is operated.

"The average family in the United States will spend about $225 on medical care this year, less than 75 cents a day—no strain, but one million families will be billed for at least $1,000 each, and around 5 million will have to pay around $500 each." "Blue Cross provides a way of leveling out the deep spots so nobody gets over his head." "There are 3½ million (half the population of Michigan) contributing to a common Blue Cross kitty each month—sick or well, young or old, all pay the same rate for the same benefits. Last year, they chipped in 120 million dollars—roughly $35 for each man, woman and child, in Blue Cross. Blue Cross didn't pay any of this money to its members, it gave the cash to hospitals and sent the patients a copy of their bills stamped paid. That's where Blue Cross differs from the commercial companies that sell health insurance."

Third article, four-columns, was headed: *"Is It All Necessary Hospital Costs Soar?"* This article points out the absolute change in the concept of hospital services by the American people. They go in now—not to die—but to get well. Every new thing, useful, is available, every one of which costs money to have available and to assure its proper usage.

"You spend eight times as much on hospitals now as in 1929, but only four times as much on drugs, and two or three times as much on doctors and dentists. Hospitals used to get 14 cents out of each health dollar, now they get 25 cents, naturally this shows up in the rates Blue Cross charges for its members for hospital protection."

Fourth article: *"But One in Six Face Hospital in 1959"* "Blue Cross? I just pay and I never get a thing! This suggests the answers.

The fifth article answers the question under the title, *"Here Is Why Blue Cross Costs More in the State."* It mentions that in response to general demand for lessened cost, Blue Cross this year has offered two low-cost policies, but the public in general chooses the more inclusive one. The criticism of over-use brings this reply:

"Michigan Blue Cross is spending several hundred thousand dollars a year to control over use. It screens every one of its 600,000 hospital bills for excessive charges. It checks every hospital stay of over thirty days, it checks hospital admissions to make sure they aren't for services Blue Cross doesn't cover. In 1957, 1,814 were turned down because the patient was admitted for diagnosis; not for treatment."

NEW MEDICAL SCIENCE BUILDINGS OPENED

(Continued from Page 506)

electric current, sanitary storm drainage—are supplied by connecting to University's utilities. Steam supplied by University central boiler. Animal quarters are completely air conditioned using 100 per cent fresh supply of air. A pneumatic tube system connects the Hospital's Surgical Department with the Tissue Receiving Room in the Pathology Department.

Said Dean A. C. Furstenberg, M.D., on the occasion of the open house on February 2:

"The State of Michigan, ranking eighth in the nation in per capita income, is *twenty-third* in its physician-population ratio. We have 109 physicians for each 100,000 people.

"By contrast, the national average is 133 physicians per 100,000; New York state has 193 and Connecticut 174 per hundred thousand.

"The most dependable source of new doctors to begin practicing in the state are Michigan's two medical schools. The University of Michigan enrolls 200 young men and women in medicine each year, the highest of any school in the nation, and Wayne State University enrolls 125.

"Since 1949, more physicians have entered Michigan than have left, but this cannot be depended upon as an adequate source of medical manpower. So, although Michigan's population is increasing rapidly, the number of doctors available to bring these babies into the world, and to care for them through life, remains constant.

"Meanwhile, the complexities of teaching medicine have increased by staggering amounts. Medicine has undergone a violent revolution in the past twenty-five years. New drugs, and sera, new surgical techniques and new methods of patient care have been joined with the discovery of new diseases. The Medical Sciences building itself is a monument to the great role of medicine in modern life and a *physical* reflection of the explosion which has occurred in the field of medicine over the past quarter century."

THE LOW COST OF HEALTH

During the past twenty-three years, the prices of prescriptions, medications, eye examinations and eye glasses have risen less than half as much as the cost of all other forms of medical care, according to the Bureau of Statistics of the U. S. Department of Labor. Prescription and non-prescription drugs have risen in price 30.7 points since 1935, as against an over-all increase of 61.2 points for the fees of general practitioners, surgeons, dentists, and hospital care.

in all diarrheas

CREMOMYCIN®

SUCCINYLSULFATHIAZOLE—NEOMYCIN SUSPENSION WITH PECTIN & KAOLIN

EXPERIENCE

MORE THAN 16 MILLION DOSES ADMINISTERED WITH SAFETY AND EFFICACY.

regardless of etiology

MSD MERCK SHARP & DOHME

DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

CREMOMYCIN is a trademark of Merck & Co., Inc.

Cancer Comment

(This column sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan)

CANCER IN CALHOUN COUNTY

Ten years ago, with the help of the American Cancer Society, a central cancer registry was established in Calhoun County. At that time no hospital in the county had a cancer registry, and furthermore no hospital record room was anxious to add to the burden of work. This made the collection of data for the central registry more difficult, but it was not by any means impossible. The doctors in the county, the pathologists, the radiologists, and the public health people were all sufficiently interested to send reports to the registry. The accessions grew in number. The hospital record librarians were helpful, but no hospital cancer registry was set up until January 1, 1954.

Since then, all general hospitals in the county have established cancer registries. The functioning hospital registries have simplified the collection of data.

If we were to do the job over again, we would start by establishing hospital registries, and let the central registry come about as the need for it arose.

The participating hospitals in the county are all general hospitals of two hundred beds or less. and the number of accessions in any one hospital registry is too small to be significant. However, when the data from all the hospital registries is gathered together in a central registry, the collected and analyzed information is sufficient in both quantity and quality to allow some reasonably good judgments to be made as to the trends in cancer control in our geographic area.

In the last ten years analyses of the data have been made on four occasions, with the co-operation of the Statistical Research Section of the American Cancer Society. These analyses have pointed out the areas where improvement in cancer control was needed. Beyond the obvious necessity for more lay education there was evident the need for professional education. The doctors needed to know wherein lay their strengths and their weaknesses in treating cancer, what were the operative mortality rates, the percentage of palliative or definitive surgery, the morbidity rates, the completeness of follow-up, and finally, what were the survival rates.

When the first analysis was done and an overall survival rate of only 19 per cent was reported to the county medical society, the general reaction of the membership was one of disbelief. Generally speaking, the surgeons (optimistic as always) believed the rate too low. The general practitioners, who care for so many people with terminal carcinoma and who are inclined to become somewhat pessimistic about the disease, thought it too high. Suffice it to say, this report was a prod to the doctors, and the survival rate in Calhoun County has been going up.

The registry system, consisting as it does of the central registry and the satellite hospital registries, has been directly responsible for securing other improvements which influence cancer control. For example, microscopic confirmation of malignant disease has increased from an original 60 per cent to 85 per cent. Follow-up of cases is much improved since hospital registries were established. Records in the hospital, never perfect, are better. More attention is paid to the specificity of primary site, the stage of the disease, whether the treatment was definitive or palliative, and finally whether the patient was free or not free of the disease at the time of discharge from the hospital.

This last question, as to whether the patient is cured or not cured, is obviously one that doctors hesitate to answer. A qualified statement would suit them better, but the record librarians ask for an answer, hoping for an enlightened guess. They get it more times than not.

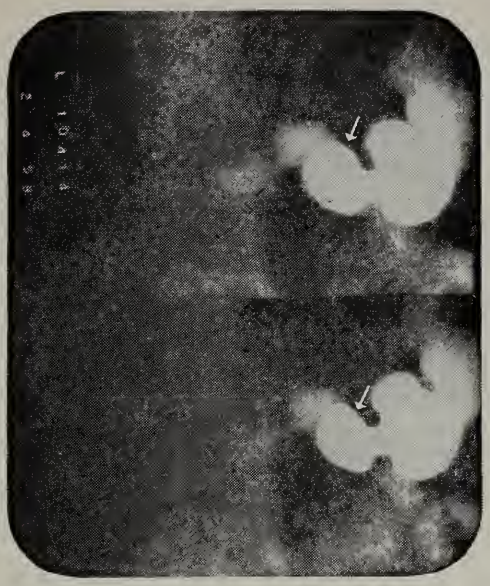
Cancer in the United States is treated in the small general hospital in over 50 per cent of cases. In Calhoun County, well over 90 per cent of patients with cancer are treated in our community hospitals. We know we are making progress in cancer control, and we know that the cancer registry system was the most important single factor in bringing about improved care for the cancer patient.

—James Hubly, M.D.

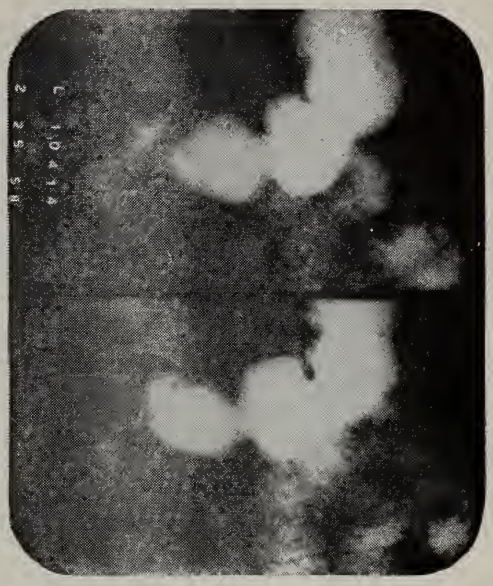
RETURNS ON RESEARCH

One American pharmaceutical manufacturer has invested more than five million dollars on cancer research since 1939, reports The Health News Institute. The firm has developed three anti-cancer agents, on which it spent $400,000 last year alone. Yet the three drugs accounted for only $29,000 of the company's 1958 sales volume. Nonetheless, the search continues full scale for a fully effective weapon against the many forms of cancer.

—and control its G.I. sequelae



Patient A.S., age 53.
Intermittent crises of severe pain over 2 year period; hospital management with Sippy regimen provided relief of symptoms; however, symptoms recurred after each sojourn.



PATHIBAMATE *(Tabs. ŧ t.i.d. and H.S.);* prompt relief of symptoms. Radiograph (21 days later) confirms healing of minute lesser curvature gastric ulcer crater.

predictable results in the control of tension and G.I. trauma

Pathibamate®

Meprobamate with PATHILON® Tridihexethyl Chloride* LEDERLE

Used prophylactically in anticipation of periods of emotional stress, or therapeutically to relieve tension and curb hypermotility and hypersecretion, PATHIBAMATE is particularly well-formulated for the control of gastrointestinal disorders.

PATHIBAMATE combines Meprobamate (400 mg.) — the noted tranquilizer-muscle relaxant widely accepted for safe management of tension and anxiety states — and PATHILON (25 mg.) — an extremely well-tolerated anticholinergic, long noted for prompt symptomatic relief based on peripheral atropine-like action with few side effects.

Indications:
Duodenal ulcer, gastric ulcer, intestinal colic, spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis with gastrointestinal symptoms, gastric hypermotility.

Supplied:
Bottles of 100 and 1,000. Each tablet (yellow, ½-scored) contains Meprobamate, 400 mg.; PATHILON Tridihexethyl Chloride, 25 mg.

Administration and Dosage:
1 tablet three times a day at mealtimes and 2 tablets at bedtime. Adjust dosage to patient response. Contraindicated in glaucoma, pyloric obstruction, and obstruction of the urinary bladder neck.

Also Available: PATHILON in four forms — *Tablets* of 25 mg., plain (pink) or with *phenobarbital,* 15 mg. (blue);
Parenteral — 10 mg./cc. — 1 cc. ampuls;
Pediatric Drops — 5 mg./cc. — dropper vials of 15 cc.

*PATHILON is now offered as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could interfere with the results of certain thyroid function tests.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

You and Your Business

MICHIGAN CANCER CO-ORDINATING COMMITTEE UNIFIES EFFORT



HARRY M. NELSON, M.D.

Since November 12, 1953, a voluntary co-operating effort of representatives of six State agencies, interested in Cancer Control, has unified progress in the fight against this disease. This agency is called the Michigan Cancer Co-ordinating Committee.

The six represented agencies in the Michigan Cancer Co-ordinating Committee are: American Cancer Society, Michigan Division, Inc.; American Cancer Society, Southeastern Michigan Division; Michigan Department of Health; Michigan Health Officers Association; Michigan State Dental Association; and the Michigan State Medical Society.

In a little over five years, the Michigan Cancer Co-ordinating Committee has justified its existence by encouraging more cancer education—especially among professional groups. It has encouraged a co-ordinated non-overlapping program in cancer control and has helped the development and maintenance of a more efficient and dynamic effort in this State.

MCCC Personnel

The 1959 representatives to the Michigan Cancer Co-ordinating Committee:

Representing the S. E. Michigan Division, Inc., American Cancer Society
H. M. Nelson, M.D., Detroit, *Chairman of MCCC*
Mr. Charles F. Arnold, Detroit
J. E. Lofstrom, M.D., Detroit
Representing Michigan Division, Inc., American Cancer Society
Mr. Russell E. Bowers, Flint
L. E. Holly, M.D., Muskegon
C. Allen Payne, M.D., Grand Rapids
Representing Michigan State Medical Society
J. W. Hubly, M.D., Battle Creek, *Vice Chairman of MCCC*
Wm. A. Hyland, M.D., Grand Rapids
H. M. Pollard, M.D., Ann Arbor
G. S. Wilson, M.D., Detroit
Representing Michigan State Dental Association
B. E. Luck, D.D.S., Lansing
Representing the Michigan Department of Health
John A. Cowan, M.D.
Representing Michigan Health Officers Association
Ralph Ten Have, M.D., Grand Haven

THREE POPULAR PUBLICATIONS

The three publications of the Michigan Cancer Co-ordinating Committee are (a) "The Story of Cancer for High Schools," intended primarily for teachers in high schools and junior colleges; (b) "Strength Through Unity Against Cancer," outlining the work of the MCCC, and (c) "Beware the Cancer Quack" for general public distribution.

For further information and copies of the publications of the Michigan Cancer Co-ordinating Committee, write Chairman Harry M. Nelson, M.D., Box 539, Lansing 3.

MSMS GAINS SEVEN AMA DELEGATES

Seven delegates to the American Medical Association's House of Delegates will represent the over 6,000 physicians, members of the Michigan State Medical Society, at future sessions of the American Medical Associations, including the Annual Session in Atlantic City, June 8-12, and the Clinical Meeting in Dallas, Texas, November 30-December 3. This increase by one was recently announced by AMA Secretary F. J. L. Blasingame, M.D.

The personnel of the MSMS delegation to the AMA is:

Delegates
W. A. Hyland, M.D., Metz Building, Grand Rapids, *Chairman*
W. W. Babcock, M.D., 868 Fisher Building, Detroit
W. D. Barrett, M.D., 311 David Whitney Building, Detroit
J. S. DeTar, M.D., Milan, Michigan
R. L. Novy, M.D., 858 Fisher Building, Detroit
C. I. Owen, M.D., Grace Hospital, Detroit
G. W. Slagle, M.D., 203 N.E. Capitol, Battle Creek

Alternate Delegates
E. F. Sladek, M.D., Traverse City
O. J. Johnson, M.D., Bay City
L. R. Leader, M.D., Detroit
Wm. Bromme, M.D., Detroit
Ralph W. Shook, M.D., Kalamazoo

ADOPTION REGULATIONS

Bruce D. Graham, M.D., and Ernest H. Watson, M.D., of the U-M Department of Pediatrics, told prospective parents that it is more important to "establish a home for the baby, than merely to get a baby for the home. There are no rigid requirements to meet. It doesn't matter how much money or how many adopted children are already in a home, although a certain financial background is necessary. Agencies don't look for a family within a specific income bracket.

The waiting period in adopting a child is beneficial. It gives the agencies time to match the child and family as closely as possible and to watch the child's development so the parents can be assured the infant has "at least average good health."

It is best for the child's emotional development

(Continued on Page 536)

in HAY FEVER *Family Physicians use*

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

BARRY

ADOPTION REGULATIONS

(Continued from Page 526)

if he is placed in a home before he is six months old. No matter what the age of the child, if a good home can be found for him, it would be wonderful if he could be adopted into that home.

Dr. Graham, himself the father of three adopted children, urged that a child be told at an early age that he is adopted. Children should grow up with this idea.

Both doctors warned couples there is only one legal way to adopt a child and that saves trouble later. People who want children should consult their physicians on the proper steps of adoption. There is also a pamphlet entitled "How to Adopt Children in Michigan," available from the Michigan Welfare League.

CONFERENCE ON AGING

"Designs for Retirement" will be the theme of The University of Michigan's twelfth annual Conference on Aging, June 22-24.

Over-all plan for the conference calls for five separate groups to meet simultaneously. Topics covered will include retirement health, retirement housing, retirement financing, retirement preparation, and uses of retirement.

Individuals interested in learning more about the conference should write its director, Wilma Donahue, M.D., chairman, U-M Division of Gerontology, 1510 Rackham Building, Ann Arbor, Michigan.

On June 24-26, immediately following the Conference on Aging, the U-M will host a National Leadership Training Institute for the White House Conference on Aging. The Institute is sponsored by the U. S. Department of Health, Education, and Welfare in co-operation with other interested federal agencies and the University of Michigan.

MUSCULAR DYSTROPHY RESEARCH

Solving the problems that lie behind crippling and often fatal muscular dystrophy was further boosted on February 4, 1959, in the form of $2,250 presented to Prof. Dugald E. S. Brown, chairman of The University of Michigan Department of Zoology.

Dr. Brown is investigating the complex mechanism that triggers and carries out activation of muscles.

NEW SCIENCE BUILDING FOR WAYNE STATE UNIVERSITY

Plans for a new science building on the Wayne State University campus were approved by the University's Board of Governors at their recent monthly meeting.

The building will be on the north side of Warren Avenue, directly east of Second Boulevard and west of the existing Science Hall. An enclosed passageway will connect the two buildings.

Total cost of the building will be $1,500,000. A $500,000 grant from the federal government with matching funds from the University will finance a health-related research facility. An additional $500,000 will finance instructional laboratories for the departments of chemistry and biology.

Exterior dimensions of the building, which was designed by Albert Kahn Associated Architects and Engineers, are 66 feet by 160 feet 6 inches.

The building will house research and teaching facilities for the departments of chemistry and biology.

Research laboratories and offices for chemistry will be housed on the second and third floors, while the fourth floor will contain research laboratories and offices for biology.

MULTIPLE SCLEROSIS CHAPTER REDIRECTS PROGRAM

The Michigan Chapter, National Multiple Sclerosis Society, in order to provide more services, and a more adequate medical coverage for the Multiple Sclerosis patient, has inaugurated a working affiliation with Wayne University College of Medicine, Department of Neurology and with the Rehabilitation Institute of Metropolitan Detroit, effective January 1, 1959. The Department of Neurology, College of Medicine, Wayne State University, under the terms of the new program will provide, under direction of John T. McHenry, M.D., Assistant Professor of Neurology, diagnostic services, in consultation with the referring physician, and will as far as possible arrange for the acute medical care of the patients with multiple sclerosis. However, neither the Multiple Sclerosis Chapter nor Wayne State University can assume cost of hospitalization for such patients. Under this program, the special clinic previously sponsored by the chapter has been discontinued.

When referred to the Rehabilitation Institute of Metropolitan Detroit, the general medical and neurological care of the multiple sclerosis patient will be the responsibility of the Neurologist in charge. The treatment will be carried out in consultation with the Institute physiatrist. This service is not limited to patients residing in the Detroit area; but is available, on referral, to anyone residing in Michigan.

Referrals by private physicians are encouraged and all arrangements and appointments for the clinics can be made through the chapter offices at 10711 W. McNichols Road, Detroit 21, Michigan. Telephone: University 2-7966. The Detroit patients with multiple sclerosis will be seen at the Special Multiple Sclerosis Clinic at Detroit Receiving Hospital on Thursdays between 10:00

(Continued on Page 542)

more potent and comprehensive treatment than salicylate alone

assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more conservative and manageable than full-dosage corticosteroid therapy—

much less likelihood of treatment-interrupting side effects[1-6] . . . reduces possibility of residual injury . . . simple, flexible dosage schedule

THERAPY SHOULD BE INDIVIDUALIZED

acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.



in any case it calls for

Sigmagen®

corticoid-salicylate compound tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Schering

SG-J-618

PR REPORT

TRUTH TRIUMPHED—
but it took a little help.

Following charges of mistreatment at the Coldwater State Home and Training School, the doctors in Branch County designed a plan to set the record straight and defend what they knew to be the facts.

The charges resulted from a probe by State Legislators into care of mentally ill patients in state institutions. John C. Heffelfinger, M.D., Secretary of the Branch County Medical Society, reports that local doctors refused to remain silent on a public issue which they believed misrepresented conditions in the Home and promised to destroy morale of physicians and employees of the school.

To counteract what they believed to be false charges, the Society, at a special meeting, adopted a resolution decrying the manner in which the investigation was being conducted and informed officers of other county medical societies of this action.

In co-operation with a special Citizens Committee, additional information regarding the high quality of the Training School and its employees was given wide distribution, including a presentation to members of the Legislature in Lansing. The sixty-page report asked that the House Investigating Committee be discontinued.

The most recent development was the distribution of a special issue of the *Jackson Citizen Patriot* to all county medical society secretaries in the Lower Peninsula. The newspaper, in a series of articles, reported the results of its independent investigation and headlined the story, "Just What Is the Truth About Coldwater? Reporter Answers: Sincere, Capable Men Doing Good Job."

In distributing this latest special issue, Doctor Heffelfinger writes:

"The . . . publicity received originally reflected also upon the medical personnel, and although cleared, we feel that not enough publicity was given to this part of the investigation. Consequently, we are making this effort to acquaint medical societies with this quality institution."

IT'S SIMPSON-KEOGH THIS YEAR—
and it may pass!

Permission for physicians, dentists, lawyers, and others, to deduct a limited amount of retirement fund contributions from net taxable income stands a good chance of becoming law this year.

Last year, the House unanimously passed the measure, but too late in the session for favorable Senate action.

This year, the bill is known as the Simpson-Keogh Bill due to the retirement of Congressman Jenkins last fall. The proposed legislation would allow self-employed persons to exclude some or all of their contributions to retirement funds from their net taxable income. Upon retirement, the monthly benefits would be taxable.

The Treasury is reportedly in sympathy with the intent of the legislation but is currently opposing passage of the bill on the basis of anticipated revenue loss. However, experience in Canada, which has passed similar legislation, shows this loss was less than one-fifth of the amount of loss anticipated by the Canadian Ministry of Finance. Thus the estimated 400 million dollar loss to our treasury is probably high.

In past years, national and state professional associations have urged the passage of the Jenkins-Keogh Bill which provided a measure of tax deferment for the self-employed. Most salaried employees now enjoy this tax relief.

TV OUSTS PHONY MEN-IN-WHITE

The TV Code Board of the National Association of Broadcasters reported at its February meeting that television is about rid of phony men-in-white commercials. They're using real M.D.'s instead. The Board said, however, that it was leaving the problem of accrediting these physician "replacements" to organized medicine on the state or local level.

The deadline for eliminating objectionable men-in-white commercials from TV programming was January 1. Decision to change the TV Code was made after high-level meetings between American Medical Association and NAB representatives. The deadline has met with wide observance and accredited physicians, dentists and nurses are now appearing on approved commercials according to the provisions of the new TV Code.

The majority of product commercials are filmed in New York City—the center of national advertising. Therefore, the question of accrediting professional people in Michigan for TV appearances has not been raised as yet.

HIF ANNOUNCES NEW STUDY OF ADMISSIONS TO HOSPITALS

Why do more than 20,000,000 Americans—or one out of every eight—enter a hospital each year?

This is the subject of a $200,000 study just authorized by the Executive Committee of Health Information Foundation. It will be conducted jointly by the National Opinion Research Center of the University of Chicago and the Foundation.

A sample of admissions to hospitals in Massa-

(Continued on Page 542)

B. I. D.

ULCER CONTROL

all day

NEW

DARICON*

oxyphencyclimine hydrochloride

TABLETS

all night

patient comfort

Natural Prolonged Action–The action of DARICON, a more potent and better tolerated anticholinergic, is consistently prolonged because it has a unique chemical structure and is not dependent on "mechanical" means (e.g., special coating, adsorption on ion-exchange resin).

In addition to peptic ulcer, DARICON is also indicated for other gastrointestinal disorders characterized by hypersecretion, hypermotility and spasm (e.g., functional bowel syndrome, chronic nonspecific ulcerative colitis and biliary tract disease).

Dosage: 10 mg. b.i.d. (morning and evening). **Supply:** Tablets, 10 mg., white, scored. Bottles of 60 and 500.

*Trademark



EVEN REFRACTORY CASES RESPOND

Pfizer *Science for the world's well-being*

PFIZER LABORATORIES

Division, Chas. Pfizer & Co., Inc.

Brooklyn 6, N. Y.

HIF ANNOUNCES NEW STUDY OF ADMISSIONS TO HOSPITAL

(Continued from Page 540)

chusetts will be examined through the approval and co-operation of the Massachusetts Medical Society, the Massachusetts Hospital Association and the Blue Cross-Blue Shield Plans in that state. The two-and-one-half-year study will attempt to ascertain the non-medical factors and family situations which lead to hospital utilization as well as medical reasons given by physicians.

MEDICAL SOCIETY SUPPORTS RADIO SERIES

An eight-part series of medical and public health lectures was recently broadcast over radio station WBCM, Bay City, co-sponsored by the Bay-Arenac-Iosco Medical Society and the Bay City Junior College. Arrangements for the series were made by W. G. Gamble, Jr., M.D., Bay City pathologist.

Lecturers were J. C. Cooper, M.D., Essexville; John Shek, M.D., Richard Asbury, M.D., Donald Suter, M.D., Peter McGee, M.D., and W. G. Gamble, M.D., all of Bay City.

The series began in late January and concluded on March 23.

MEDICAL ASSISTANTS HOLD SEMINAR II

Three University of Michigan experts were featured at the second annual educational seminar of the Michigan State Medical Assistants Society (MSMAS), March 11, at the Pick-Fort Shelby Hotel, Detroit.

They are: Lois W. Hoffman, research associate in the U-M Research Center for Group Dynamics, who discussed "Women at Work"; Robert Moulton, instructor in psychology and psychologist with U-M counseling division, who chaired a panel discussion on "Having Patience with Patients"; and Stanley Segal, assistant professor of psychology and assistant chief of the counseling division, U-M Bureau of Psychological Service, who talked on "Psychological Aspects of Physical Illness."

MSMAS includes persons employed in the office of members of the Michigan State Medical Society, hospitals accredited by the American Medical Association, and medical laboratories of the State of Michigan.

Palpation of the oral cavity should include examination of the floor of the mouth, base of the tongue, tonsillar areas, and hypopharynx.

* * *

Most carcinomas of the cervix and vagina can be felt by the physician's fingers.

MULTIPLE SCLEROSIS CHAPTER REDIRECTS PROGRAM

(Continued from Page 536)

A.M. and 1:00 P.M. Patients from Wayne County and from outstate will be seen at the Detroit Memorial Hospital on Tuesday of each week by special appointment.

This new program has been instituted to provide medical care and service to the multiple sclerosis patient and his family. Though it does include the help of specialists and special techniques of treatment, the family physician must retain the primary responsibility. Reports of diagnostic studies and of therapeutic procedures will be submitted to the referring physician.

GRANTS TO WSU ANNOUNCED

Gifts and grants totaling more than $94,000 were approved by Wayne State University's Board of Governors at its recent January meeting.

Research received the largest share with $53,824 given to the University for this purpose by the U. S. Public Health Service, National Institutes of Health.

Of the total, $19,550 was given to continue research entitled "Formation and Properties of Prothrombin Derivatives" at the College of Medicine. Another $19,133 will support research entitled "Homeostatic Control of Cholesterol Biogenesis" at the College of Liberal Arts.

Other grants totaling $14,714 from the U. S. Public Health Service will be used to continue heart and cell research at the College of Medicine.

A $10,000 grant from the National Science Foundation will support research entitled "The Hylid Frogs of Middle America" in the College of Liberal Arts. The Michigan Chapter of the Arthritis and Rheumatism Foundation gave $6,800 to continue arthritis research at the College of Medicine.

A $51,378 grant from the Atomic Energy Commission to expand Wayne State University's nuclear studies program was announced on February 2, by Dr. J. Russell Bright, University director of contract services.

Funds will be used to purchase equipment to enable the physics and chemistry departments to establish programs in nuclear studies.

Dr. Raymond Adams, acting chairman of the physics department, said the physics allotment of $34,090 will buy eight sets of radiation detection and accounting equipment. This equipment will lay the foundation for establishment of a nuclear physics laboratory with course instruction scheduled for September, 1959.

Clinical findings in 900 patients show the selective antihypertensive action of Singoserp

IN 735 PATIENTS, BLOOD PRESSURE FELL AN AVERAGE OF 30.7 mm. Hg:

- more than half of these patients suffered from **moderate to severe hypertension**
- more than half of the cases involved hypertension of at least 6 years' standing, with **many histories of up to 20 years' duration**

THE SIDE-EFFECTS PROBLEM WAS MINIMIZED IN MOST PATIENTS:

Chart shows gratifyingly low incidence of side effects in 233 patients given Singoserp with no other antihypertensive medication

Side Effect	Number	Per Cent
Lethargy	7	2.9
Headache	6	2.5
Gastrointestinal upset	3	1.2
Vertigo	2	0.8
Nasal congestion	1	0.4

DOSAGE: Initially, 1 to 2 tablets (1 to 2 mg.) daily.
SUPPLIED: Singoserp *Tablets,* 1 mg. (white, scored); bottles of 100.
Samples available on request. Write to CIBA, Box 277, Summit, N.J.

a major improvement in rauwolfia

a major advance in antihypertensive therapy

Singoserp®
(syrosingopine CIBA)

CIBA
SUMMIT, N.J.

2/2657MK

SPONTIN IN SERIOUS

A Special Report from Abbott to the Medical Profession on a Year's Clinical Experience with SPONTIN®

(Ristocetin, Abbott)

In a Spanish province, a patient lay dying of endocarditis. A short wave radio appeal for SPONTIN was intercepted by a Baltimore physician. The antibiotic was immediately flown to this faraway land, and 10 days later—the patient had recovered.

In Chicago, a moribund patient had been administered 18 combinations of 10 different antibiotics without success. Involved was a hospital-acquired staphylococcal pneumonia—plus complications. SPONTIN was substituted and the patient lived.

A five-week-old infant was critically ill with staphylococcal enteritis. Treatment failures included erythromycin and chloramphenicol. Three days of SPONTIN saved this life. The list is long and impressive and it grows daily.

Recently, a study[1] was made of serious and resistant staphylococcal infections reported to Abbott Laboratories. Many of these cases had serious complicating diseases—many were moribund, or almost so, at the time SPONTIN was started. Yet, out of the 160 staphylococcal cases studied, 93 were reported cured and 38 improved after the administration of SPONTIN.

Out of the total of 251 patients with severe infections caused by gram-positive or mixed organisms, 149 were reported cured and 53 others improved. And the record for pediatric practice was every bit as good.

Additionally, SPONTIN continues to exhibit exceptional bactericidal activity against coccal infections[2]. And, according to another study, SPONTIN provides successful short-term therapy in endocarditis[3]. 901066

Only last October, at the Antibiotics Symposium in Washington, D. C., a panel of six leading antibiotic experts placed SPONTIN at the top of all other commercially-available antibiotics for treating serious staphylococcal infections. Also, six papers—all dealing with the effectiveness of ristocetin (SPONTIN®) in treating staphylococcal infections—were presented at the Symposium.

One of the most encouraging aspects of the year's literature on SPONTIN is the increasing testimony to its safety. As the months have passed and cases have accumulated by the hundreds, it has become apparent that careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals.

A recent report[4] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a [well tolerated] and potent agent to employ in the treatment of staphylococcal infections." And in another study, after successfully treating 28 patients with a variety of staphylococcal infections, the authors reported[5], "No serious complications were noted."

Few more dramatic records have been written in such a short space of time. SPONTIN has proved itself to be a good answer, perhaps the best answer at present, to the resistant staphylococcal problem—and of real value in other serious coccal infections. It may well be your answer when you're confronted with a serious infection.

Abbott

Say you saw it in the Journal of the Michigan State Medical Society

STAPHYLOCOCCAL INFECTIONS

Excerpts from Reports Read at the Antibiotics Symposium

Spontin In Treating Severe Respiratory Infections —"In 13 of 20 patients the results were excellent, with clinical response being evident within one to four days after institution of therapy. In three additional patients, there was some degree of improvement in pneumonic processes superimposed on tuberculosis in two cases and on pulmonary neoplasm in one. In all other cases, serious antecedent pathology undoubtedly influenced the negative or equivocal response to ristocetin therapy.[6]"

Spontin In Treating Staphylococcal Infections—After successfully treating 28 patients, the authors wrote, "Ristocetin or Spontin has proved to be bactericidal and bacteriostatic, particularly for the *Staphylococcus aureus,* which is often resistant to many other antibiotics.[5]"

Spontin In Treating Seven Difficult Cases – "Ristocetin has produced excellent results in eradicating, mitigating or preventing infection in seven selected difficult cases. Six of the seven cases involved *Staphylococcus aureus* which did not respond to chemotherapy with other antibiotics.[7]"

Spontin Blood Levels In Children – "Ristocetin was administered as a single intravenous injection of 12.5 milligrams per kilogram. This resulted in serum levels ranging from 1.3 to 10.6 mcg. after two hours with a gradual fall to a level of 0.7 mcg. per cubic centimeter or less after 12 hours.[8]"

Spontin In Treating Staphylococcal Pneumonia —"Ristocetin was used in the treatment of 24 patients with staphylococcal pneumonia, 17 of whom had failed to respond to previously administered antibiotics. Complete clearing of pneumonitis was obtained in 16 patients and significant improvement occurred in two others. Two patients died of pneumonia; four others succumbed to other lethal diseases.[9]"

Spontin In Treating Children and Adults – "Ristocetin completely controlled severe staphylococcal infections in 11 adults and six children who received adequate therapy.[10]"

1. Totals represent published reports and personal communications to Abbott Laboratories.
2. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
3. Romansky, M. J., and Holmes, R., Successful Short-Term Therapy of Enterococcal and Staphylococcal Endocarditis with Ristocetin—Seven Patients. Preliminary Report, Antibiotics Annual, 1957-58, p. 187.
4. J. A. M. A., 167:1584, July 26, 1958.
5. Bush, L. F., et al., The Use of Ristocetin (Spontin) in Staphylococcal Infections, In Press, Antibiotics Annual, 1958-59.
6. Billow, F. J., et al., Clinical Observations on Ristocetin—A Preliminary Report on its Efficacy and Toxicity in 20 Unselected Severe Respiratory Infections, In Press, Antibiotics Annual, 1958-59.
7. Miller, J. M., et al., Ristocetin in the Treatment of Seven Selected Difficult Cases, In Press, Antibiotics Annual, 1958-59.
8. Asay, L. D., et al., Ristocetin Serum Levels in Children, In Press, Antibiotics Annual, 1958-59.
9. Schumacher, L. R., et al., Experiences with Ristocetin in Staphylococcal Pneumonia: Observations in 23 Cases, In Press, Antibiotics Annual, 1958-59.
10. Terry, R. B., Ristocetin in Children and Adults, In Press, Antibiotics Annual, 1958-59.

AMA Washington Letter

THE MONTH IN WASHINGTON

If every member of Congress had his way, there would be anywhere from 10 to 15 institutes at the National Institutes of Health in Bethesda. The total now stands at seven, and there is a good possibility that an eighth will be in operation this year or next.

Fifty-eight Senators of both parties joined in sponsoring a resolution that would do three things: (1) establish a National Institute for International Medical Research, (2) create a National Advisory Council for International Medical Research, and (3) authorize $50 million annually for international research programs. Senator Lester Hill (D., Ala.), a leader in health legislation and health welfare appropriations, has taken the lead in pushing this bill.

Four days of hearings brought almost unanimous support of the resolution, only two witnesses complaining it did not go far enough. The administration asked for three postponements to testify. This gave rise to speculation that it either may object on budgetary grounds or dissatisfaction over location of the institute.

Dr. Gunnar Gundersen, American Medical Association president, pledged full support and assistance of the AMA for the project. ". . . we believe that the promotion of international health through research is one of the best means of promoting international co-operation and understanding." He noted "a growing recognition that medicine, with its resources and influence fully mobilized, can perhaps do more for world peace than the billions of dollars being poured into armaments."

The AMA President made several suggestions for the committee's consideration; including (1) that the World Medical Association be included among the international groups to be co-operated with, (2) that due care be taken not to "rob" other countries of experts in medical care and scientific research through support grants not geared to salary differentials. (3) That the program should be primarily one of research itself rather than construction of research facilities. (4) That the greatest care be exercised in setting up the research grants and research programs to avoid overlapping or duplicating.

NOTES

The Forand bill for hospitalization and surgical services of retired social security recipients has been introduced in only slightly revised form. Its number is H.R. 4700. One change of interest is permitting surgical services to be performed by other than board-certified surgeons. The author says the program will be financed by increasing social security taxes (above increases already scheduled) by one-fourth of 1 per cent for both employer and employe and three-eighths of 1 per cent for the self-employed, both starting in 1960.

More significant than even the introduction of the bill was the statement Mr. Forand filed in the Congressional Record the same day. It was moderate in tone and seemd to be asking the support of all groups. He noted, for instance, that some of his strongest backers have questioned the inclusion at this time of surgical services.

This, he commented, should be weighed by the committee when it takes up the bill.

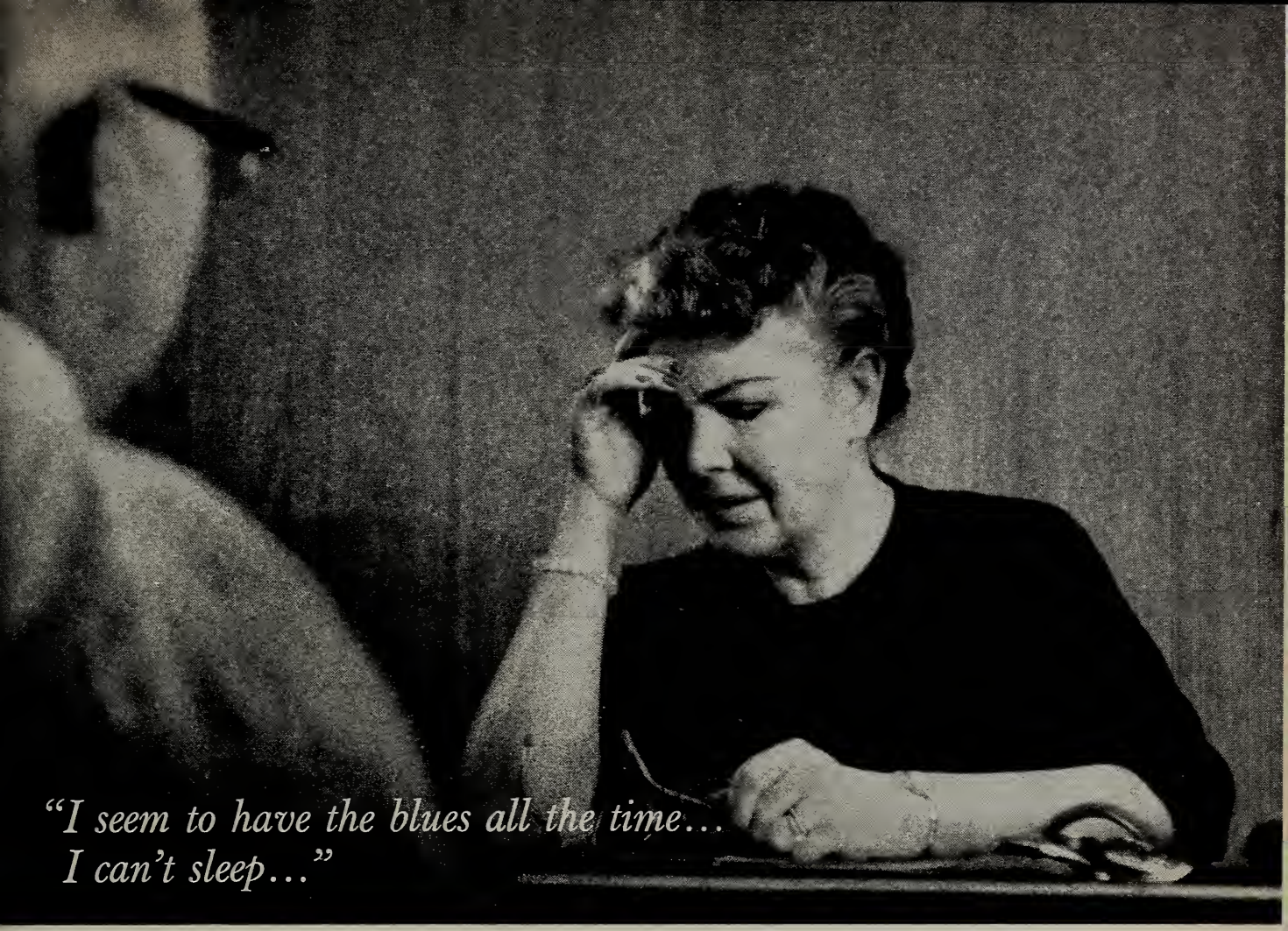
On hearings, little is known. Neither the House Leadership nor Chairman Wilbur Mills of Ways and Means Committee have given any indication when hearings would be held.

While some committees of Congress have been moving rapidly ahead on health legislation, others like the House Interstate Committee only recently got around to organizing its health subcommittee. It was given a new name: health and safety subcommittee when Rep. Kenneth Roberts (D., Ala.) who headed a special highway safety committee was tapped for the new post. Its area of interest includes public and quarantine, food and drugs, hospital construction, highway and air traffic safety, and air pollution. Mr. Roberts is a lawyer by profession and is now serving his fifth term.

* * *

The first woman physician to be honored in Statuary Hall is the late Dr. Florence Sabin of Colorado. She is the first person selected from

(Continued on Page 548)



in the depressed, unhappy patient

PROMPTLY IMPROVES MOOD

without excitation

- **Acts fast to relieve depression and its common symptoms:** sadness, crying, anorexia, listlessness, irritability, rumination, and insomnia.
- **Restores normal sleep**—without hang-over or depressive aftereffects. Usually eliminates need for sedative-hypnotics.

EFFICACY AND SAFETY CONFIRMED IN OVER 3,000 DOCUMENTED CASE HISTORIES.[1, 2, 3]



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each light-pink, scored tablet contains 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

▲Deprol▲†

References:
1. Alexander, L.: J.A.M.A. 166:1019, March 1, 1958.
2. Current personal communications; in the files of Wallace Laboratories.
3. Pennington, V.M.: Am. J. Psychiat. 115:250, Sept. 1958.

®WALLACE LABORATORIES, *New Brunswick, N. J.*
†TRADE-MARK
CD-8612

Editorial Comment

BLUE CROSS COSTS

Editor's Note: The following are excerpts from an editorial in the *Detroit Times,* January 5, 1959, quoted because they express a considered expression of a layman on a problem we all have faced.

. . . What we all want—the public, the hospitals, the Blue Cross itself—is some fairyland solution in which everybody will get lavish care at a dime-store price. As long as we keep on living in such a dream world, we'll never solve anything.

Meanwhile Blue Cross is damned if it does and damned if it doesn't—criticized by the unions, investigated by the state and county because its costs keep rising, and opposed by a few hospitals if it tries to put some sort of sliding ceiling on costs.

We can see no prospect whatever that hospital costs will decline. The nation is still in a phase of creeping inflation. The price of food, shoes, cars and postage continues to rise.

So will the wages of nurses, maids and orderlies; so will the price of sheets, soap, potatoes and medicines. The cost of going to a hospital will keep on rising and we might as well stop kidding ourselves there is any way to let the cost of everything else go up and keep hospital costs steady.

If there is to be a solution, we must look elsewhere for it.

One answer, of course, would be to stay at home for more illnesses, instead of going to the hospital. This would mean do-it-yourself nursing for individual families. It would probably cost some lives, because better care is possible in a hospital, and more facilities are available.

Likewise to shift a large portion of medical care back to the home would bring a demand for many more doctors than we now have. To be blunt, state legislatures have not had enough money or inclination to build enough medical schools as it is; how, then, can we expect to get the further increase in doctors necessary for such a change as we have outlined? We can't.

So that idea goes into the discard.

The whole thing comes down, probably, to the exact attitude that all of us take when illness strikes.

We say, in an emergency, "I don't care what it costs; I want the best." Yet in between emergencies, we complain, "It costs too much."

There is precisely the point at issue. . . . The issue is simple. The conflict is simple. And the answer, in a way, is simple. You can't have things unless you want to pay for them. . . .—From *Your Health.* Michigan Blue Cross-Blue Shield, February, 1959.

PAINLESS SCALPEL

That was a fascinating story from Sweden about the first brain operation with an atomic "knife." The knife was a painless beam of protons which severed two nerve tracts in the brain of the patient and apparently freed him from chronic pains and depression.

It is a matter of satisfaction that the proton beam technique was developed by two Americans, Drs. Cornelius A. Tobias and John H. Lawrence, at the University of California's Donner radiation laboratory in Berkeley.

The possibilities are enormous. Medical scientists are thinking of its development in treatment of nervous disorders, Parkinson's disease, and cancer.

Here is further indication that man has discovered a power which can be used for the immeasurable benefit of humanity or for its destruction. It is a hard paradox of our time that we can hope for the first only by building up nuclear deterrent strength against the second.—*Detroit Times,* Jan. 23, 1959.

AMA WASHINGTON LETTER

(Continued from Page 546)

Colorado. Each state is permitted two statues of distinguished persons. Dr. Sabin was a noted medical researcher and in her later years a public health leader in Colorado. At the unveiling ceremonies in the Capitol, Dr. George Fister of the AMA Board of Trustees represented the association.

* * *

Three Republican members of the Senate Labor subcommittee on health would have a two-year study of health needs of all citizens, young and old. The fifteen-man commission would recommend to the President and Congress necessary legislation to supplement or stimulate broader health protection coverage by existing private and non-profit plans. Senators Javits of New York, Case of New Jersey and Cooper of Kentucky are the co-sponsors.

"Education has added just as much to America's capacity to buy and to consume as it has to its capacity to produce and sell. Education, like advertising, is a means of making people dissatisfied with what they have. It adds to their incentive as well as to their capacity to make better things. . . . If higher education were to wither, production, markets, and consumption eventually would wither, too."—Willis Compton, Ph.D. Quoted by President John A. Hannah, Michigan State University.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 APRIL, 1959 NUMBER 4

Cancer Research at the University of Michigan

By Howard B. Latourette, M.D.
Ann Arbor, Michigan

RESEARCH in the field of growth and cancer is one of the responsibilities of a medical school and offers the faculty the opportunity to investigate and to contribute to the understanding of an increasingly complex subject of vital interest to us all. This research encompasses a wide range from the study of the functional processes of life on a molecular basis to the direct application of new treatment techniques for patients with cancer.

At the University of Michigan, cancer research is integrated with teaching and the care of patients making up the over-all cancer program. The research projects are most effectively classified and administered in accord with established departmental divisions and involve many professional backgrounds both in and outside the medical school. A Cancer Research Institute has been established to help correlate the varied research projects, to encourage and assist young investigators, to receive and administer research funds within the University and to assist in obtaining outside research support from both federal and philanthropic granting agencies. This Institute also establishes research fellowships for medical students and predoctoral students in an attempt to interest qualified students of the biological sciences in research activities in order to help fill the increasing need for research personnel. Other functions of the Institute include the sponsoring of seminars and retreats to facilitate the exchange of information and ideas among those interested in this field.

The actual projects currently underway at the University of Michigan include those in the department of bacteriology where the staff is searching for certain naturally occurring macromolecules that have a specific action on tumor cells. It has been found that certain seed extracts have peculiarly specific agglutinating action on human red cells as well as certain tumor cells *in vitro*. Those compounds that are effective *in vitro* are tested on tissue cultures and then in animals. No human tests have as yet been made. The mechanism of action and of the blocking of action by living systems suggests an antigen-antibody relationship.

Staff members of the department of bacteriology are also attempting to increase the passage of macromolecular substances such as antibodies and other complex chemotherapeutic agents through endothelial barriers, blood capillaries. Certain drugs have been found that alter the function of these structures and may be quite helpful in increasing the concentration of effective agents in certain locations.

Another project currently in progress in this department includes immunologic studies of leukemia. Information is being sought on the immunologic factors that permit immune C-58 mice to survive inoculations of malignant leukocytes (Line Ib) since the collective or separate roles of humoral, cellular, and innate factors of resistance to malignant growth remain to be established. Use of isologous inbred mice and a line of leukemic cells that

kills its host of origin in an accurate and predictable period of time, provides an experimental system for analysis of immunologic response to transplanted malignant cells.

In the section of virology, School of Public Health, staff members are actively investigating precancerous tissues in an attempt to isolate any virus-like agent that might be present. They also are working with viral agents that are known to produce tumors in animals. The action of the "Sarah Stewart Agent" in tissue cultures is being studied. This agent has the interesting characteristic of being able to produce a variety of tumors in several different species of animals. This portion of the faculty also are attempting to isolate antibodies to animal tumors from human sera.

In the department of biochemistry, a group is interested in exploring the biochemical differences between normal and neoplastic tissues in the hope that the knowledge of biochemical transformations peculiar to cancer cells may serve as a guide to the selection of antimetabolites in the treatment of cancer. Studies of this nature indicate the truth of the fundamental concept that to understand the basic properties of the cancer cell requires an understanding of the processes of the normal cell and of life itself. The degree of biochemical differential between normal and abnormal growth is being determined. Rapidly dividing cells (either neoplastic or normal) have a high rate of synthesis of dexoxyribonucleic acid (DNA) and this has prompted the synthesis of a wide variety of analogs of the purine and pyrimidine moieties found in this class of compounds such as azaquanine, mercaptopurine, fluorouracil and the antifolic acid compounds which have been tried as anti-tumor agents. Analogs of the sugar part of the DNA molecule are being tested and some members of the staff in this department are looking for possible antitumor activity from a branched sugar (cordycepose) which is at the same level of oxidation as deoxyribose, the sugar present in the DNA molecule. This compound, by itself or in combination with other antimetabolites, may provide a fruitful approach to cancer chemotherapy.

Several of the organic chemists in the department of chemistry are actively engaged in the synthesis of new agents to be tested by the cancer chemotherapy National Service Center. Also in this department, a fundamental project is in progress involving the study of carcinogenic action of certain polynuclear aromatic hydrocarbons. It has been theorized that this action is correlated with the distribution of electron density among the atoms in the molecule as determined by quantum mechanical calculation. This theory is being tested by determining the basicities of the carcinogenic and related compounds. The basicities which are a measure of the electron density distribution at the bonding site, can be determined from the stabilities of the complexes formed between the aromatic hydrocarbons and various acid molecules.

In the clinical departments of the Medical School, members are more concerned, of course, with the application of new information on cancer to cancer patients but they are also conducting an increasing number of more basic projects. In the department of internal medicine, there is a study now in progress on mouse multiple myeloma. The X5563 tumor of C3H mice produces myeloma tissue with spread to bone marrow and spleen, and causes serum electrophoretic abnormalities and bone lesions. This tumor is being used to study the effect of P32 as well as tumor immunity since both chemical and morphologic identity are possible. The tumor is used in irradiated mice of different strains as well as in DBA mice with mast cell tumors.

Other projects being conducted by members of this department include studies of the "Effect of Malignant Growth on Creatine Metabolism of the Host," "Thyroid Deshalogenase," and the "Differentiation of Gastric Ulcer and Cancer by Measuring Response to Maximum Parietal Cell Stimulation with Histamine."

Tissue culture work is being done in the departments of gynecology and obstetrics and in pathology. Attempts are being made to culture carcinomas of the human ovary so that *in vitro* drug assaying can be done and perhaps gain information on the most effective type of chemotherapy for each patient. Mesenchymal tumors are being cultured in an attempt to gain some insight into their nature and classification. Specific histologic and histochemical techniques, as well as the subsequent growth characteristics in a heterologous animal host, are being investigated.

In the department of surgery there are several projects underway which directly concern patients with cancer. There is an extensive study on the use of endocrine therapy in carcinoma of the breast. Elaborate estrogen assays are being made in an attempt to predict the effectiveness of addi-

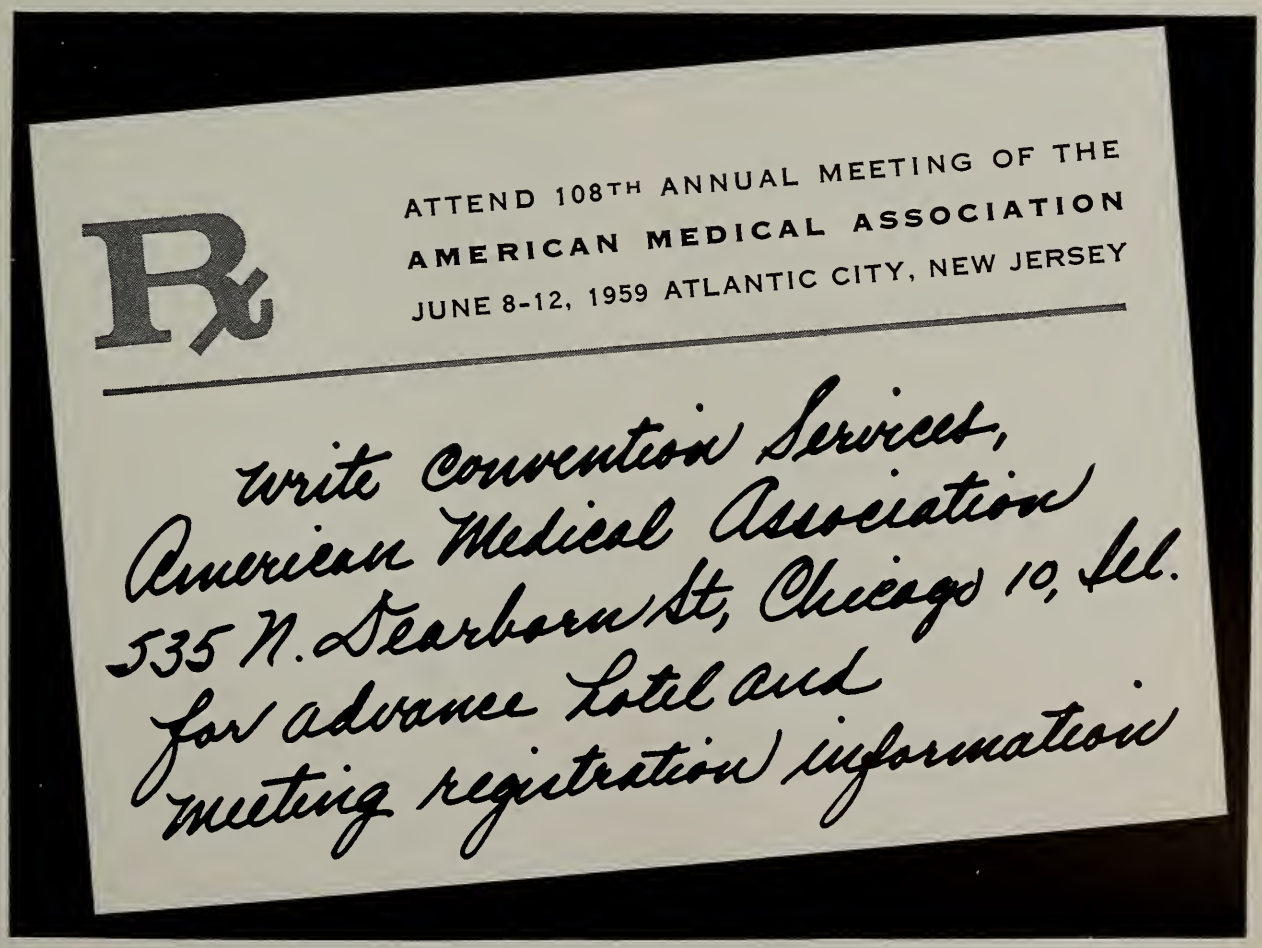
tive therapy or ablative surgery. A variety of hormones are being used and evaluated clinically. Another portion of the surgery staff is studying the serum protein alterations in cancer. There is evidence to suggest a loss in immunologic responsiveness in advanced cancer, associated with a decrease in serum gamma globulin out of proportion to the decrease in total serum proteins. Several patients with breast cancer have been found to have a disproportionate decrease in gamma globulin and an associated deterioration of their clinical condition. As a corollary, gamma globulin is being given intravenously to carefully selected patients to see whether gamma globulin in excess results in any objective evidence of clinical remission. Other projects within the department of surgery include the study of techniques to enhance the skin homograft survival in animals and the perfection of techniques of lung autotransplantation and homotransplantation in animals.

The radiotherapeutic section of the department of radiology is engaged in a continuing project for long-term study of radioactive isotopes as teletherapy sources. Comparative studies of the clinical usefulness of the radiations of Cobalt-60 and Cesium-137 are now in progress. The evaluation of these high energy radiations in terms of clinical accomplishment is made by comparison with that obtainable by standard high-voltage x-ray treatment. This compression requires the meticulous following of patients and evaluation of results.

The presence of the reactor on the North Campus makes it possible to consider the clinical use of short half-lifed isotopes as well as a neutron beam for the irradiation of patients. There is considerable preliminary planning and experimentation necessary before the clinical use is feasible, however.

The tumor registry of the University Hospital has been functioning for almost twenty-five years and contains data on over 30,000 patients with cancer. This data is being used to guide co-operative studies on survival and selected epidemiologic projects.

It is impossible to mention in a brief review all the specific projects in cancer and growth research at the University of Michigan. Those mentioned have been selected as representative and to indicate the scope of cancer research at this institution.



Cancer Research at Wayne State University College of Medicine

By Osborne A. Brines, M.D.

Detroit, Michigan

IT is difficult to decide which research should be considered "cancer research" because much laboratory investigation in such disciplines as chemistry, physiology and biology are indirectly, at least, related to the cancer problem. The second difficulty is *how* to provoke reader interest in a short article which permits little more than a listing of the projects being undertaken. Some attempt will be made to artificially divide the subject.

Exfoliative Cytology

A study of uterine cytology in 100,000 examinees is entering its third year and the project is about half completed. The purpose of this survey is to determine the incidence of uterine cancer in this geographic area among various groups of women and to study methodology in cytodiagnosis. Particularly of importance is the opportunity to observe atypical changes in cervical epithelium and to sharpen the histologic criteria of intraepithelial carcinoma. A wide diversity of clinical material is available at Receiving Hospital and Herman Kiefer Hospital. Over half of the examinees are Negresses; nearly one-quarter are pregnant; about half are studied by vaginal smears alone and the remainder by vaginal and cervical smears. All of the examinees are indigent with two exceptions: (1) a group of young, active, industrial women selected for the purpose of studying the value of tampon smears, and (2) the registrants at the Yates Memorial Clinic, a cancer detection clinic staffed professionally by the College of Medicine. All positive and suspicious smears are followed by biopsy and the validity of cytopathologic diagnosis thereby more firmly established. Dr. Esther H. Dale is the director of the project with the assistance of Dr. Jane Blue, the consultation of several specialists and the co-operation of the department of obstetrics and gynecology.

Radiant Energy and Radioisotopes

Four investigations are being carried out in the department of radiology under the direction of the chairman of the department, Dr. James E. Lofstrom. One is the evaluation of radioisotopes in teletherapy, a study which has been carried on for five years, revolving principally around the use of Cobalt 60 teletherapy and a comparison of results thus obtained with those produced by 250 KV. Comparative evaluation has been made in the response to a variety of the more common neoplasms. Collateral experimental studies are carried on in methodology and dosimetry. Cobalt 60 as a replacement for radium, both as surface applications and intracavitory sources of irradiation, has been tested.

A long-term study is being carried out on the effect of *in utero* irradiation of the rat fetus on life span, weight curves, neoplasm incidence, ophthalmologic and neurologic changes, as well as gross metabolic influences. A colony of more than 1,000 rats is maintained for this purpose.

The effect of total body radiation on the local irradiation effect of various tumors implanted in the thighs of mice is being evaluated as well as the effect of injected plasma from irradiated animals in tumor-bearing animals to which local irradiation is applied. Additional mouse studies are being conducted on the incorporation of intraperitoneally injected P32 in tumor cells as well as the amino acid metabolism of tumors in an attempt to interpret irradiation results obtained.

Experimental Pulmonary Cancer in Monkeys

In the department of industrial medicine, under the direction of its chairman, Dr. Arthur J. Vorwald, a program in the investigation of the possible cause of lung cancer is in its fourth year. These are largely inhalation experiments using known atmospheric concentration of beryllium sulfate aersol exposure chambers which house monkeys in an environment simulating working and living conditions of a human. Exposure chambers have been developed and designed as a part of this project. As part of this general study, beryllium compounds are injected into the wall of main bronchi or introduced intratracheally through a

bronchoscope. The purpose of these procedures is to induce epithelial changes in the bronchial mucosa which may progress to lung cancer. The necessity of a reasonable longevity of the monkeys undergoing experimentation is an obvious requirement and has become a vital part of the study. The ability of beryllium to produce lung cancer experimentally has previously been demonstrated by Dr. Vorwald. Other carcinogens are now being tested in the same manner.

Tissue Culture

A study by Dr. Lawrence Berman designed primarily to study erythropoiesis has developed interesting aspects related to cancer and has provided techniques of cell growth which lend themselves to the study of neoplasms. Experience with over 400 cultures of human bone marrow has led to the development of methods adaptable to a wide variety of procedures for cell study. In the course of this project, stable strains of human cells have been isolated from normal and pathological tissues and normal peripheral blood. Such cell isolation has led to the development of twenty continuously maintained strains (Detroit strains) of human cells which have been useful in analyses of karyotypes of human cells undergoing malignant transformation *in vitro*. Emphasis is now placed on studying the dynamics of mitosis and the proliferation of human erythrocytes *in vitro,* and for testing the effects of various types of erythropoietin on both maturation and proliferation of erythroblasts with special attention to the effect of humoral factors affecting erythropoiesis in cancer-bearing individuals. This is part of a general study of host factors in cancer patients.

The Receiving Hospital Research Corporation (by grants) supports several cancer research projects carried out by members of the college staff. Dr. Hermann Pinkus is engaged in a comparative study of benign and malignant connective tissue tumors of the skin with considerable emphasis on keloids, particularly an enzyme study by histochemical methods. The department of dermatology is continuing its study of newer carcinogens in the production of cutaneous malignancies. In the department of obstetrics and gynecology, Dr. Charles S. Stevenson is conducting an investigation of intracellular enzymes in squamous cell carcinoma of the cervix. The purpose of this study is the possible development of a "sensitivity to irradiation" test by observation of the enzyme pattern. Dr. Robert Leach, of the department of internal medicine, continues his endocrine studies particularly on factors influencing pituitary-gonadal relationships. This includes observation of ovarian function in women with genital carcinoma before and after irradiation of the ovaries; also, studies of the metabolism of administered estrogen in healthy women and those with mammary cancer. Dr. Nicholas Gimbel, in the department of general surgery, is investigating nutritional and endocrine factors influencing the growth of human epidermis. Controlled experiments using human volunteers are employed to detect various environmental factors and chemical agents. Standardized burn blisters are produced and the effects of various applied substances are observed under controlled conditions.

This report would not be complete without reference to the Detroit Institute of Cancer Research —not because the College of Medicine presumes credit for the accomplishments of the Institute— but because of the affiliation between this fine group and the University. In a recent twenty-two-page brochure depicting the previous ten-year period, the scientific director, Dr. William L. Simpson, described the type of work engaged in by a staff of twenty scientists and over thirty assistants which has resulted in hundreds of publications in the scientific and medical literature. A three-way partnership exists between the Institute, the Medical School and Receiving Hospital in the operation of the seventh floor of the Farwell Annex of the hospital. This floor is, in effect, a large research laboratory where some of the results obtained by years of animal experimentation can be applied clinically with ample facilities for careful patient study.

Lung Cancer Detected by Mass Chest X-Ray Survey

By Charles R. Williams, M.D.,
and James E. Lofstrom, M.D.

Detroit, Michigan

AT the present time, the only means of discovering asymptomatic and curable bronchogenic carcinoma is by routine chest x-rays. It is well known that there has been an actual increase in the incidence of this disease during the past few years and that its incidence continues to increase. The Michigan Department of Health became interested in this matter from a public health standpoint and financed the present study in order to evaluate the efficacy of the survey program in this State as a lung cancer detection method.

This paper presents the findings of a follow-up study of 464 patients suspected of having a lung tumor by the routine survey photofluorogram. These persons were selected from a total of 754,475 examinations done in surveys conducted from 1955-1958 in Detroit, Wayne County, Highland Park, Hamtramck, Oakland County and Macomb County. Initial follow-up examination in abnormal cases was in some instances done by the local Health Department, where primary re-evaluation consisted of obtaining a 14 x 17-inch film of the chest. Other Health Departments informed the patients to contact their private physicians for further evaluation.

From the outset, we were aware of many of the difficulties to be encountered in a study dependent upon the old records of a general population group. Most helpful letters from Dr. Katherine R. Boucot of Philadelphia and Dr. Lewis W. Guiss of Los Angeles, both of whom have done similar studies,[2,4] had warned us of the extreme difficulty we would have in attempting to collect follow-up information in a study of this type. In an effort to obtain all available aid, letters were sent to the County Medical Societies and their cancer control committees informing them of the survey and its purpose and asking for co-operation of the members in supplying information concerning patients. Similar letters were sent to all City and County Health Officers as the initial information in each case was to be obtained from their records.

Multiple letters and phone calls to physicians, hospitals, and patients were used in collecting data. In many cases a medical extern assigned by the Michigan Department of Health made personal contact with physicians or patients who had failed to respond to our routine inquiries. In spite of what we considered a diligent search, we were unable to obtain any follow-up information whatsoever regarding thirty-eight patients. This represents 8.7 per cent of the tumor suspect group. In view of the fact that we were starting, in many cases, with patient information which was three years old, it seems remarkable that our lost group was so small. If future surveys of this nature are to be conducted, prior arrangements for patient follow-up study must be much more complete, if entirely accurate and meaningful data is to be accumulated.

TABLE I. TUMOR SUSPECT RATES

Region	Persons Examined	"Tumor Suspect" Rate Per 100,000 Persons
Seattle, Wash.	368,129	70
Salt Lake City, Utah	162,351	70
Boston, Mass.	536,012	74
Gaston, N. C.	84,599	70
Los Angeles, Calif.	1,867,201	188
Milwaukee, Wis.	176,469	20
Minneapolis, Minn.	301,513	130
Savannah, Ga.	67,961	60
Spokane, Wash.	106,526	60
Tacoma, Wash.	72,703	40
Washington, D. C.	439,927	80
Average	380,308	78
Southeastern Michigan	754,475	58

On initial evaluation of complete data, twenty-six cases were excluded from the tumor suspect group as they had neoplasms or other conditions which were previously known and thus could not be considered "discovered" by the survey. This left 438 tumor suspects to be evaluated as cases detected by the survey rather than 464 as we first

From Wayne State University, Detroit Michigan.

This work was carried out through a Grant to Detroit Memorial Hospital from the Michigan Department of Health.

had thought. The tumor suspect rate was thus fifty-eight per 100,000 persons examined and compares with rates in other general population surveys as shown in Table I. Eighty-two persons representing 18.7 per cent of this group were found to have primary lung cancer. This represents eleven verified bronchogenic carcinomas per 100,000 persons examined. The average of several general population surveys done in other areas was

TABLE II. LUNG CANCER PATIENTS

Cell Type	Number
Squamous	19
Anaplastic	14
Adenocarcinoma	13
Undetermined	20
Probable	13
Alveolar	3
Total	82

75 males—Avg. age=58.7 years
7 females—Avg. age=52 years

ten per 100,000 persons examined. In thirteen "probable" cases, no definite histologic diagnosis of carcinoma was obtained but in each of these the x-ray findings, the symptoms and a rapid downhill course with early death was considered adequate

TABLE III. SURGICAL STATUS OF CANCER PATIENTS
(Total Cases 82)

	Cases	Per Cent
Refused surgery	7	8.5
Inoperable	27	33
Unknown	6	7.3
Operated upon	42	51
Exploration only	17	21
Resection done	24	29
Partial	7	
Complete	6	
Undetermined	11	
Extent of surgery unknown	1	

ground for considering them lung tumor patients. This entire group is outlined in Table II. Twenty patients are included in a group designated carcinoma, type undetermined. This means that microscopic confirmation of malignancy was obtained but information regarding exact cell type was not obtained via our survey. Seventy-five patients in this group were males with an average age of 58.7 years and there were seven females with an average age of fifty-two years. The great preponderance of males with a higher average age, correlates well with the general statistics concerning lung cancer. As might be expected, the most frequent histological diagnoses were squamous cell carcinoma and anaplastic carcinoma. Three cases of so called alveolar cell carcinoma were found in this group.

From the standpoint of cancer control, the entire significance of a survey of this nature rests upon the surgical status of the individual cancer patient when found. To date, complete surgical excision remains the only curative method available. The surgical status of this group is shown in Table III. Twenty-seven patients were considered inoperable at the time of initial follow-up evaluation. An additional seven patients were advised to have operations but refused. In all, forty-two patients or 51 per cent of the lung cancer group, underwent surgery and in seventeen of these, exploration only could be done. Resections were done in twenty-four instances but seven of these were thought to be only partial. In eleven cases, the extent of resection was not known to us, and in one case the nature of the surgery was completely unknown. In six cases, resection was considered to be complete. As stated, twenty-four patients were operable from the standpoint that resection of some nature was possible. This represents 8.5 per cent of the suspect group and 29 per cent of the tumor cases. This percentage may be compared with results from similar surveys,[1,2,4,6,7] as shown in Table IV. The rather low resectability rate in this series is not readily explainable. It is apparent however that the number of patients in three of the groups listed is too small for the per-

TABLE IV. RESECTABILITY RATES OF SURVEY DETECTED TUMORS
(Mostly Asymptomatic)

	Cases	Resectable Per Cent
Guiss (Los Angeles)[4,5]	222	39
McNulty (Boston)[6]	39	56
Overholt (Boston)[7]	67	60
Bondi (New York)[1]	21	50
Boucot (Philadelphia)[2]	48	40
Average	79	49
Southeastern Michigan	82	29

TABLE V. STATUS OF RESECTED CASES AT TIME OF SURVEY
(Total Cases 24)

	Expired	Living and Well	Living with Symptoms	Unknown
Partial resection (7)	5	1	1	0
Complete resection (6)	0	5	0	1
Resection extent (11) Unknown	5	4	0	2
Total	10	10	1	3

centages to be of real significance. Three surgical deaths were reported and in each case, these occurred during or immediately following complete pneumonectomy.

TABLE VI. STATUS OF LUNG CANCER PATIENTS AT TIME OF SURVEY

	Cases	Per Cent
Expired	41	50
Living and well	18	22
Living with symptoms	16	20
Unknown	7	8
Total	82	100

The status of the twenty-four patients who had resections is shown in Table V. Only one of these patients had survived more than two years at the time of the survey. Analysis of several surveys by Garland[3] revealed a three-year survival rate of 11 per cent of the lung cancer patients found by survey. He found that this was not significantly different from that obtained in regular practice.

The status of the entire verified cancer group is shown in Table VI. Detailed analysis of survival data from this group would be of no value as most cases have been followed only a short time and information is incomplete in many instances. However, it is of interest to note that in thirty-six cases yielding adequate information, the survival (calculated as of date of death or last contact) from time of treatment was 6.2 months. In fifty-nine cases with sufficient data, the survival time from survey diagnosis was 9.4 months. The only real importance of these figures is that they reveal an average delay of three months from the time of initial diagnosis to the time of therapy. This of course has the effect of at least partially defeating the advantage obtained by discovering the disease in the asymptomatic state. More extensive follow-up of a larger group would be required to allow full appreciation of the effect of this delay.

The final classification of all patients in the tumor suspect group is shown in Table VII. The "not proven" category consists of seventy-seven patients in whom an abnormality exists but no definite diagnosis had been established at the time of the survey. It is probable that cases of lung cancer will be found in this group. We have no information as to how many cases of bronchogenic carcinoma were missed during these surveys. Guiss,[5] doing a more complete and cancer-conscious study, with excellent follow-up, concluded that less than 10 per cent of persons, even though harboring early lung cancer, will be missed by such an x-ray survey.

The Los Angeles survey, as analyzed by Guiss,[4,5] had a tumor suspect rate of 188 per 100,000 persons examined, which is much higher than this or other comparable surveys. He estimated the cost to discover each tumor suspect as $396.00 and $9,625.00 for each proven bronchogenic carcinoma. However, McNulty[6] noted that the chest survey was directed primarily against tuberculosis and the tremendous expense of conducting it must be charged off almost entirely against the control of that disease. He concluded that in a survey directed at tuberculosis, the additional cost of providing for the follow-up study of a relatively small tumor suspect group is very small compared to the total cost, and that when such surveys are planned, advantage should be taken of these opportunities for the detection of lung cancer. Several writers have suggested chest screening for cancer be limited to select groups, such as men over forty-five years of age. Garland[3] estimates that such a survey would yield fifty verified cases of bronchogenic carcinoma per 100,000 persons examined (rather than ten per 100.000 as found by general population surveys).

TABLE VII. FINAL CLASSIFICATION OF TUMOR SUSPECT GROUP
(Total Cases 438)

	Cases	Per Cent
Verified lung cancer	82	19
Not proven	77	17.6
Negative	79	18
Metastases	43	9.8
Lost to follow-up	38	8.7
Tuberculosis	24	5.5
Heart and vessels	14	3.2
Refused follow-up	14	3.2
Thyroid	13	3.0
Other diagnosis	54	12.3

Summary

Four hundred and thirty-eight tumor suspects were found in chest surveys which examined a total of 754,475 persons (Table VIII). Follow-up studies on these patients were difficult since old records were used. Eighty-two persons in the suspect group were found to have primary lung cancer. There was a three-month average delay from the time of initial diagnosis to the time of treatment. Surgical resection was possible in only twenty-four or 29 per cent of the cases. To date, follow-up is not adequate to evaluate survival.

Conclusions

1. Bronchogenic carcinoma in the curative stage can probably best be detected by routine survey of select groups.

As mentioned in the body of our report, adequate follow-up of survey cases is greatly dependent upon collection of complete and accurate data at the time of initial patient contact. Arrangements for this must be made well in advance of a survey with the proposed methods of future patient-contact being taken into consideration. We feel that these suggestions, if carried out, plus an increase in co-operation between public agencies and private physicians would result in the saving of lives.

TABLE VIII. SUMMARY OF FINDINGS IN LUNG CANCER SURVEY
Southeastern Michigan

Area	Number Examinations	Number Suspects	Suspect Rate Per 100,000	Suspects Lost		Suspects—No Diagnosis Established		Suspects—Proven Lung Cancer	
				Number	Per Cent	Number	Per Cent	Number	Per Cent
Herman Kiefer Hospital	501,160	243	48	18	7.4	46	19	75	31
Macomb County	124,009	88	70	4	4.5	3	3.4	3	3.4
Oakland County	74,692	67	89	6	9	13	19	1	1.5
Wayne County	32,000	26	81	4	15	9	35	2	7.7
Hamtramck	11,271	20	170	4	20	5	25	0	0
Highland Park	10,893	11	100	2	18	1	9	1	9
Total	754,475	438	58	38	8.7	77	18	82	19

2. In surveys directed primarily at tuberculosis, lung cancers will be detected, and more adequate methods for follow-up should be arranged *prior* to the survey.

3. Much of the benefit gained by discovering early cases is lost through delay between time of diagnosis and onset of treatment.

Recommendations

Delay in establishing diagnosis and in initiating treatment was observed in analysis of this survey and has also been found in other, similar surveys. It is unfortunate but true that considerable delays have also been observed in hospitals doing routine chest examinations. We believe more diligent follow-up of tumor suspects would result if a specific individual in each health department, institution, or industry conducting chest surveys would be responsible for maintaining records on these patients and co-ordinating subsequent efforts of the health department and/or private physician involved. The use of special (preferably, conspicious) follow-up forms in these cases would also aid in their rapid processing.

References

1. Bondi, G., and Leites, V.: Malignant neoplastic disease discovered in chest x-ray surveys. New England J. Med., 247:506, 1952.
2. Boucot, Katherine R., and Sokoloff, M. J.: Preclinical bronchogenic carcinoma. Am. Rev. Tuberc., 69:164, 1954.
3. Garland, L. H.: The detection of carcinoma of the lung by screening procedures, particularly photofluorography. Am. J. Roentgenol., 64:402, 1955.
4. Guiss, L. W.: Value of mass chest roentgen-ray survey method in control of lung cancer. Cancer, 5:1035, 1952.
5. Guiss, L. W.: Detection of cancer of the lung—results of a chest x-ray survey in Los Angeles. California Med., 82:385, 1955.
6. McNulty, J. M.: Clinical follow-up study of 398 patients suspected of having lung cancer discovered in Boston chest x-ray survey. New England J. Med., 250:14-17, 1954.
7. Overholt, R. H.: Cancer detected in surveys. Am. Rev. Tuberc., 62:491, 1950.

LOSS OF $7.5 BILLION INCOME DUE TO ILLNESS

Social Security Administration (Division of Program Research) estimates that American workers in 1957 incurred total income loss of $7.5 billion due to non-work-connected short-term illness and first six months of long-term disability. Wage and salary earners accounted for $6.4 billion of loss, self-employed persons the remainder. About 26 per cent of income loss was paid in benefits through governmental and nongovernmental disability insurance and sick leave plans.

Dermatoses and Malignant Internal Tumors

By Helen O. Curth, M.D.
New York, New York

DERMATOLOGY has moved steadily in becoming a recognized specialty separate from internal medicine. After this goal was achieved, however, it was realized by internists and dermatologists that much knowledge would be gained by exploring the nature of the ties between the skin and internal organs. The association of dermatoses with malignant internal tumors[5] represents one of these interesting relationships between the two specialties.

These dermatoses are benign cutaneous processes, regularly associated with malignant internal tumors; they are not cutaneous metastases of internal tumors.

For many years I have been interested in acanthosis nigricans. Although it is a rare disease, it will serve as an example for demonstrating the problems of the interrelationship between tumor and dermatosis.

Malignant acanthosis nigricans[6] (Fig. 1) is so called because of its association with an internal malignant tumor. It is such a reliable cancer clue that if one is confronted with an adult who has recently developed this dermatosis, one can state with 100 per cent certainty that the patient already has or will soon have an internal adenocarcinoma. Only in 17 per cent will the tumor subsequently become evident. In 22 per cent the tumor has already preceded the dermatosis and in 61 per cent both processes have started simultaneously.

We are fortunate in having in acanthosis nigricans of dynamic manifestation, which visibly registers improvement or worsening depending on regression or progression of the internal tumor. If the internal cancer is irradiated or removed by operation, the dermatosis may improve to the point of disappearance. If the tumor recurs, which it usually does, the dermatosis reappears and increases in severity. These changes in the dermatosis can probably be ascribed to stimulation by certain substances elaborated by the tumor. In the presence of a growing tumor, the dermatosis will spread. If the tumor has been temporarily eliminated, the dermatosis regresses.



Fig. 1. Malignant acanthosis nigricans of left axilla of fifty-one-year-old woman suffering from gastric carcinoma. (Courtesy, Dr. H. E. Michelson).

Heretofore, not a single patient with malignant acanthosis nigricans has survived. Macklin[21] attributed this mortality rate of 100 per cent to the preponderance of gastric cancers, which constitute 64 per cent of all the cancers associated with this dermatosis. All associated cancers have been adenocarcinomas.

Acanthosis nigricans is not a melanoma. We, therefore, are not dealing with circumscribed lesions. The eruption is confluent, widespread and favors the body folds, especially the axillas. The skin shows a rough, wart-like and blackish surface. The roughness of the palms is striking.

Acanthosis nigricans may occur in two other types, neither of which is associated with an in-

From the College of Physicians and Surgeons, Department of Dermatology, Columbia University, New York, New York.

This study was supported by a research grant (C1603) from the National Cancer Institute of the National Institutes of Health, Public Health Service.

Read at the annual meeting of the Michigan State Medical Society, Detroit, October 1, 1958.

ternal cancer. These are mentioned because in almost all the various dermatoses which we shall discuss, the one form of dermatosis which is associated with a malignant tumor is not the only type



Fig. 2. Syndrome of generalized intestinal polyposis and melanin spots of oral mucosa, lips and digits. Note prevalence of lesions on lower lip. (Courtesy, Drs. H. Jeghers, V. A. McKusick and K. H. Katz).

that occurs. The benign type of acanthosis nigricans without an associated tumor is present at birth or begins at childhood or puberty. Caution is needed here because the type associated with a malignant internal tumor may also affect children. Pseudo acanthosis nigricans[7] occurs in obese brunette individuals of any age and seems to be dependent on the obesity.

Recently, a report[17] on cancer of the esophagus and keratoses of palms and soles observed in two Liverpool families, which may be related to each other, was published. Of eighteen patients with cancer of the esophagus seventeen also had keratoderma and in the remaining one the presence of keratoderma was considered possible. There was no other case of esophageal cancer in members unaffected by the keratoderma. Many family-members had only keratoderma but may eventually succumb to esophageal cancer. There was no hyperkeratosis of the esophageal mucous membrane adjacent to the tumor.

Dermatomyositis as a cancer clue does not play the same important role as malignant acanthosis nigricans. Approximately 7 to 13 per cent of cases of dermatomyositis[4,27] are associated with malignant internal tumors. Such careful observers as your distinguished member, A. C. Curtis, and his collaborators[9] however, established a higher figure of about 18 per cent of association of this dermatosis with malignant tumors in patients ranging in age from two to sixty-nine years. All those who had cancer were adults so that the percentage of the association with cancer would have been even higher than 18 per cent if there would have been an investigation of adults only. In another series reported by Everett and Curtis[11] and confined to children and adolescents, no malignant tumors were found although in some of the young patients dermatomyositis proved fatal and autopsies were performed.

In adults there are no known characteristic differences between dermatomyositis associated with a malignant tumor and dermatomyositis not so associated. This situation is entirely different from acanthosis nigricans, in which the benign and malignant types represent separate disease entities. As long as we do not know any clinical features of dermatomyositis which distinguish the form associated with from the form without cancer it is wise to suspect the presence of cancer in every adult with the dermatosis.

Patients with dermatomyositis show erythema of the extremities, of the face, and have a characteristic periorbital heliotrope ring. They complain of muscular fatigue and weakness and difficulty of deglutition. The affected muscles show inflammatory and vascular changes. The pharynx, heart and kidneys may be involved. A low-grade fever may be present.

Among the tumors associated with dermatomyositis, there is a striking preponderance of bilateral mammary and ovarian cancers but not all associated cancers are adenocarcinomas. Squamous cell cancers of the cervix and vagina, lymphoblastoma, Hodgkin's disease, sarcoma and tumors of the lung and parotid gland have been reported.

Several investigators[4,12] noted that the tumors preceded the dermatomyositis or that both started simultaneously. In all of Curtis's[9] cases, however, dermatomyositis preceded the tumor, highlighting again the significance of a cutaneous cancer clue. The close dependence of the dermatosis on the tumor, which exists in malignant acanthosis nigricans, could not be demonstrated in dermatomyositis since, although dermatomyositis may improve with elimination of the internal tumor, it does not always exacerbate with renewed progression of the tumor.

In the generalized and localized form of scleroderma, various malignant tumors were observed but proof of a causal relationship between the tumor and the dermatosis is still lacking.[23]

The Peutz-Jeghers syndrome[18] represents generalized intestinal polyposis and melanin spots of

the oral mucosa, lips (Fig. 2) and digits. Lately, controversy has arisen over the significance of the polyp as a premalignant sign. In an editorial in *Gastroenterology,* Bartholomew[1] maintains that surgical treatment of the disorder should be confined to instances of intussusception and gastrointestinal bleeding and should not be extended to the prevention of malignant transformation of the polyp. Jeghers,[19] cognizant of several instances[2,31] of transition from benign polyp to malignant tumor, advocates radical surgical measures in this condition. The polyps are located in the small intestines but may occur in the stomach and the colon as well and may lead to anemia, melena and periodic attacks of abdominal pain.

The pigmented spots remain stationary and do not reflect any changes in the intestinal polyps. Moreover, pigmented nevi constitute a rather common cutaneous change. These pigmented lesions, nevertheless, assume significance because (1) they are found in great numbers in unusual locations and (2) several members of a family may show pigmentations together with polyposis. I understand that in Washington, D. C. residents in hospitals routinely look for pigmented spots on the lower lip and fingers in patients with intussusception. Jeghers' presence in Washington may have something to do with this awareness of the Peutz-Jeghers syndrome on the part of the physicians there.

Polyposis, mostly of the large intestines,[15] together with multiple cutaneous, subcutaneous and osseous lesions has been observed in England[22] and the United States, particularly in Utah. In this familial disorder, the relatively high incidence of cancer of the colon and rectum is rather convincing evidence of the transitional development of these polyps to carcinoma.

The carcinoid syndrome has only recently been fully understood.[20,26] Not all carcinoids are of the functioning type. Carcinoids may progress slowly and metastasize. They originate in the gastrointestinal tract, frequently the ileum, or in the lung as bronchial adenomas, and metastasize to regional lymph nodes, the liver and the lung. The cutaneous manifestations depend on the liberation of serotonin, 5-hydroxytryptamine, into the blood stream by the cells of the primary or metastatic argentaffin tumor. The metabolite, 5-hydroxy-3-indole acetic acid in the urine, can be measured by simple chemical tests but care should be taken that the patient is off all drugs and bananas.

Serotonin causes flushing of the face and occasionally of the entire body. If flushing continues or persists, telangiectasia may develop.

It seems necessary to stress the premonitory role of generalized pruritus in cancer of the gastrointestinal tract, abdomen, thorax, breasts and other sites at a time when pruritus "regardless of cause" is treated by pills.

Generalized urticaria may result from cancer of the rectum, a hydatiform mole or Hodgkin's disease.

Various types of erythema have been observed in association with tumors: Generalized erythema multiforme has been seen one to twenty-one days after deep irradiation of malignant tumors[10] of various sites. The dermatosis could be experimentally reproduced by repeated irradiation of the tumor. It, therefore, would be safe to assume that the cutaneous eruption is caused by the irradiation itself or the effect of irradiation of the tumor and absorption of disintegrating tumorous tissue.

In cancer patients who did not receive radiation therapy, a generalized erythematous, papular, papulovesicular, bullous or polymorphic eruption may appear following manifestation of the tumor.[5] Various types of primary or metastatic cancer have been observed in connection with this eruption, which sometimes simulates systemic lupus erythematosus.

A bizarre form of erythema gyratum repens[14] resembling grains of knotty pine has been noted in patients with cancer of the breast or lung.

Acquired ichthyosis,[30] characterized by dry and cracking skin, in adults[13,25] should arouse suspicion of Hodgkin's disease, lymphosarcoma or aplastic anemia.[8]

Another rare skin disorder, pachydermoperiostosis, has been observed[3] in association with pulmonary carcinoma in men over forty years. This dermatosis is characterized by deep folds of face and scalp, thickened lids, ears and lips, macroglossia, clubbing of fingers and rough palms.

A man in California, recently suffered from acanthosis nigricans as well as pachydermoperiostosis. Acanthosis nigricans suggested an internal carcinoma and pachydermoperiostosis limited the location of the tumor to the lung.

Herpes zoster is occasionally observed in patients suffering from cancer, which already has become evident. Most of these patients had received radiation therapy to the tumor four to forty months prior to the outbreak of the herpes zoster. Gen-

TABLE I. INCIDENCE OF HERPES ZOSTER OCCURRING WITH OTHER DISEASES

Hodgkin's disease	4.5 per cent[16]
Hodgkin's disease	0.06-13.4 per cent[23]
Lymphosarcoma	7.0 per cent[16]
Lymphatic leukemia	0.9 per cent[16]
Mammary cancer in general	4.0 per cent[24]
Mammary cancer with metastasis	5.0 per cent[24]
Mammary cancer without metastasis	3.0 per cent[24]

NOTE: In the general population herpes zoster constitutes 1 to 2 per cent of all dermatoses.

eralized herpes zoster is especially suggestive of neoplastic disease.

There are also tumors of other sites associated with herpes zoster. Among the neoplasms many have metastases. The eruption frequently occurs in the segment corresponding to the tumor or metastasis.

Dermatitis herpetiformis,[29] a generalized eruption with grouped papulovesicular lesions on trunk and extremities, may be associated with malignant tumors of various sites. Usually the tumor is already evident at the time the dermatosis develops. Most, but not all, of the associated tumors show necrosis. Not every instance of a recurrent tumor is accompanied by reappearance of the dermatitis herpetiformis. The explanation of this phenomenon may be that the first tumor may have shown necrosis but that it may have been absent in the recurrent one.

Theories as to Principles Involved

"Recognition of the association of dermatoses and malignant internal tumors may help cancer research by providing material for an understanding of the principle by which a tumor has evoked cutaneous changes; also it may guide in a definite direction the search for a tumor in cases in which the dermatosis has preceded the manifestation of cancer.

"Various principles seem to play a role in the relationship between the tumor and the dermatosis. Genetic relationship explains the associations of intestinal polyposis and cutaneous and or osseous changes and of palmar and plantar keratoderma with esophageal cancer. A genetic predisposition to tumor and dermatosis may underlie malignant acanthosis nigricans. In addition, the cancer activates acanthosis nigricans. The tumor which leads to pachydermoperiostosis is characterized by anoxemia of peripheral tissues. Substances of irradiated and non-irradiated (as well as of necrotic or non-necrotic) tumors may cause toxic or allergic cutaneous reactions. Alteration of liver function due to neoplasm or metastases may lead to changed vitamin A and B metabolism and a disturbed estrogen-androgen balance. Hormonal imbalance may play a role in many tumors. Some tumors may produce nonphysiologic substances. By mechanical means or toxic effects the irradiated or non-irradiated tumors or leukemias may create ideal conditions in the afferent portion of the reflex arc for the activation of the herpes zoster virus.

CAUSE OF ASSOCIATION

"While disappearance of the dermatosis after removal of the tumor and reappearance of the dermatosis with recurrence of the tumor point to some causal connection between tumor and dermatosis, it would be wrong to assume in every such instance that the tumor is the sole cause of the cutaneous eruption. The catabolic substances of the neoplasm may serve as the trigger mechanism for skin predisposed to various pathologic processes by genetic, allergic or other factors."[5]

References

1. Bartholomew, L. G.: (Editorial) The significance of the gastrointestinal polyp. Gastroenterology, 35: 107-108, (July) 1958.
2. Berkowitz, S. B.; Pearl, M. J., and Shapiro, N. H.: Syndrome of intestinal polyposis with melanosis of the lips and buccal mucosa: A study of the incidence and location of malignancy. Ann. Surg., 141:129-133 (Jan.) 1955.
3. Castex, M. R.; Marzei, E. S., and Schaposnik, F.: Paquidermia plegada con paquiperiostosis hipertrofica de los huesos largos. La Prensa Medica Argentina, 36: No. 3, 119-131 21 de enero, 1949.
4. Christianson, H. B.; Brunsting, H. A., and Berry, H. A.: Dermatomyositis: Unusual features, complications and treatment. A.M.A. Arch. Dermat., 74:581-589 (Dec.) 1956.
5. Curth, H. O.: Dermatoses and malignant internal tumors. Exhibit, A.M.A. Arch. Dermat., 71:95-107 (Jan.) 1955.
6. Curth, H. O.: The significance of acanthosis nigricans. A.M.A. Arch. Dermat., 66:80-100 (July) 1952.
7. Curth, H. O.: Pseudo acanthosis nigricans. Ann. dermat. et syph., 78:417-429 (July-Aug.) 1951.
8. Curth, H. O.: Unpublished observation.
9. Curtis, A. C.; Blaylock, H. C., and Harrell, E. R.: Malignant lesions associated with dermatomyositis. J.A.M.A., 150:844-846 (Nov. 1) 1952.
10. Davis, J., and Pack, G. T.: Erythema multiforme following deep x-ray therapy. A.M.A. Arch. Dermat. & Syph., 66:41-48, 1952.
11. Everett, M. A., and Curtis, A. C.: Dermatomyositis: Review of 19 cases in adolescents and children. A.M.A. Arch. Int. Med., 100:70-76 (July) 1957.
12. Firmat, J.. and Lipsett, M.: Cancer and dermatomyositis. Cancer, 11:63-66 (Jan.-Feb.) 1958.
13. Forman, L.: Ichthyosiform hyperkeratosis with lymphosarcoma. Proc. 10th Internat. Cong. Dermat., London, 535, 1952, 1953.
14. Gammel, J. A.: Erythema gyratum repens. A.M.A. Arch. Dermat. & Syph., 66:494-503 (Oct.) 1952.
15. Gardner, E. J.: A genetic and clinical study of intestinal polyposis, a predisposing factor for carcinoma of the colon and rectum. Am. J. Human Genet., 3:167-176 (June) 1951.
16. Haagensen, C. D., and Craver, L. F.: A note on the occurrence of herpes zoster in Hodgkin's disease, lymphosarcoma and the leukemias. Am. J. Cancer, 16:502, 1932.
17. Howel-Evans, W.; McConnell, R. B.; Clarke, C. A., and Sheppard, P. M.: Carcinoma of the oesophagus with keratosis palmaris et plantaris (tylosis). Quart. J. Med., 27 No. 107:413-429 (July) 1958.
18. Jeghers, H.; McKusick, V. A., and Katz, K. H.: Generalized intestinal polyposis and melanin spots of oral mucosa, lips and digits. New England J. Med., 241:993 and 1031, 1949.
19. Jeghers, H.: Personal communication.

(Continued on Page 607)

Therapy of Skin Cancer in the Light of Newer Histobiologic Concepts

By Hermann Pinkus, M.D.
Monroe, Michigan

WHEN the dermatologist is called upon to examine and treat a patient for suspected malignant disease, he can claim certain advantages and must admit certain disadvantages in comparison with other specialists who treat skin cancer. The surgeon and radiologist are committed each to his own method of treatment, but each can claim more extensive training, more diversified techniques, and more effective equipment in his field than the average dermatologist possesses. The dermatologist can choose between all available methods of treatment, but he must realize the limitations of his therapeutic skill and equipment. His greatest advantage and claim to a decisive place in the management of skin cancer and related conditions is his diagnostic skill. His trained eye and mind can classify a given lesion more closely and differentiate it from non-malignant conditions and other forms of malignancy. He should also be able to determine, on the basis of exact diagnosis, the extent of the lesion and then should choose that method which has the highest promise of cure with the minimum of morbidity and deformity. He should be able to decide whether he can handle the case himself or should refer the patient to a surgeon or radiologist for definitive therapy.

The goals in the treatment of skin cancer have changed over the years. Some decades ago, even leading departments and clinics were satisfied to "cure" a basal cell cancer temporarily, and to treat the recurrence when it arose. Today, our goal must be complete cure—not only of basal cell, but also of squamous cell cancers. As far as melanoma is concerned, the rate of cure should at least not be jeopardized by inadequate initial measures, and prevention should be practiced, whenever possible.

In the development toward more effective therapy, histopathologic examination has played an important role. Where the naked eye does not suffice, a judicious biopsy interpreted by a skilled pathologist can bring clarity. In this field, too, dermatology is in an almost unique position by having developed dermato-histopathology in its own fold. This, of course, is due partly to the fact that only a trained dermatologist, generally, can be expected to speak the dermatologic "lingo" fluently enough to satisfy his clinician brothers. To put it more scientifically, the dermato-pathologist must be able to follow all the intricacies of differential diagnosis that have been developed by generations of specialists bent on subdividing and rearranging disease pictures and describing and naming new entities.

Being one of these "subspecialists" in our specialty and pleading guilty to several crimes in this field, myself,[15,18,19] I want to use this opportunity to make amends and to point out several instances where recent investigations have led to a more rational basis for treatment and sometimes to simplified treatment.

Six topics will be considered: (1) the question of malignant melanoma versus benign nevus and juvenile melanoma; (2) squamous cell carcinoma versus kerato-acanthoma; (3) the somewhat related question of squamous cell carcinoma against inflammatory change in seborrheic keratosis; (4) the problem of baso-squamous carcinoma versus adnexal differentiation in basal cell epithelioma; (5) the treatment of superficial epitheliomas and keratoses; and (6) a few words about kraurosis vulvae and lichen sclerosus et atrophicus.

Pigmented Nevi and Melanoma

The question of the pigmented mole and its development into malignant melanoma—either spontaneously or following traumatization by accident and, especially, by dermatologic treatment—has

From the Departments of Dermatology and Syphilology, Wayne State University College of Medicine and Detroit Receiving Hospital.

Presented at the 93rd Annual Session of the Michigan State Medical Society, October 1, 1958, Detroit.

Supported in part by grants C-2072 and RG-4435 from the National Institutes of Health, Public Health Service, and by Research Contract DA-49-007-MD-584 from the Research and Development Division, Office of the Surgeon General, Department of the Army.

provoked much heat. There is little doubt that a considerable percentage of malignant melanomas develop in a pre-existent benign mole. Conversely, in view of the great frequency of benign moles, it is a rare occurrence for a pigmented nevus to develop into malignant melanoma. There is little definitive proof that single trauma can convert a benign mole into melanoma. Some experts, to cite only Dr. George Pack,[14] deny this possibility and contend that any melanoma which seems to follow slight trauma must have been pre-existent, or the so-called nevus would not have been injured so easily. This same reasoning should hold true for dermatologic therapy of common moles, be it electrocautery or superficial ablation with the knife. Two studies—one, experimental, by Walton et al,[27] and the other, derived from collected biopsy material, reported by Schoenfeld and myself[20]—have not brought evidence that recurrence of pigmentation after incomplete removal of a nevus indicates malignant change.

This, however, is of little consolation for the dermatologist who has desiccated a supposedly benign nevus and then finds the patient developing a malignant recrudescence or distant metastasis. He cannot prove that there was malignancy before he ever touched the mole. Most dermatologists feel that they can make an accurate clinical diagnosis (Shaw[22]). Several published statistics, however, (Becker,[2] McMullan and Hubener[11]) and my own experience indicate that the incidence of disagreement between clinical and histologic diagnosis is high in the field of pigmented lesions. It seems to me that the only way to avoid error, blame, and possible serious consequences for patient and doctor, is to have a histologic examination on every mole removed, unless removal is practiced for strictly cosmetic purposes. This, of course, precludes simple desiccation as a method of treatment. However, superficial ablation of the protruding portion of a nevus, followed by desiccation, does not increase the amount of scarring and furnishes a satisfactory specimen, since malignant change always starts at the dermo-epidermal junction.

This rule has been pretty well established by various investigators over the last fifteen years (Traub and Keil,[25] Allen and Spitz,[1] Shaffer[21]). It is an example of how better insight into biologic mechanisms can furnish rules for practical treatment. It has become generally accepted that "junction activity" in a nevus is a warning signal, and that so-called junction nevi, especially if exposed to repeated trauma, might better be removed prophylactically.

There is, however, one exception to this rule, and again this exception can be understood by considering the biology of nevi. Not only malignant melanomas develop at the junction; every pigmented nevus (except blue nevi) originates there. Thus junction nevi are the rule in young children, they become compound nevi as the growth matures, and eventually become completely intradermal (Lund and Stobbe[9]). Stegmaier[24] recently has tried to show statistically that many nevi even disappear in old age.

A junction nevus in a child need not cause concern, unless there is other evidence of malignancy. As a matter of fact, malignant melanoma is quite rare in children. We have learned through the work of Spitz[23] that many lesions formerly diagnosed as such, constitute a special type of tumor, the juvenile melanoma. These lesions look frightening under the microscope to one not familiar with them. They do not recur or metastasize if removed completely, though conservatively, during childhood. This is one example where better knowledge of histopathology has led to more conservative treatment.

A word may be said concerning the handling of a mole that is suspected to be malignant. If at all possible (that is, if the lesion is not too large), conservative but complete excision is preferable to removal of a piece. If histologic examination proves the lesion to be benign, nothing more need be done. If the verdict is malignant, the patient is best referred to a competent surgeon, who in most instances will agree that the patient's chances have not been jeopardized by the first procedure.

Keratoacanthoma and Squamous Cell Carcinoma

One of the most surprising developments of recent years, not only to the dermatologist, but to anybody interested in cancer research, is the realization that there are self-healing squamous cell cancers of the skin. Two main types are recognized:[4] the multiple lesions of Ferguson Smith and the single molluscum sebaceum or keratoacanthoma. The tumor-like keratoses of Poth are related to the latter. Ferguson Smith reported that some patients repeatedly develop tumors which are indistinguishable clinically and microscopically from squamous cell carcinoma, but grow for a limited time only, then stop, dry up and heal without therapy. This experience is rare, but the

single lesion, the keratoacanthoma, is common. All of us have seen these tumors which grow quite rapidly and reach a size of 1 cm. or more in a few weeks or months. They usually have a "volcano"-like appearance. Their slopes are covered with smooth-stretched skin and there is a central crater filled with a tough and adherent keratotic plug. If the patient delays seeing a doctor or if the physician has the courage to wait, growth ceases after three to six months; the mass becomes sequestered by inflammatory reaction, and the tumor heals leaving a depressed, irregular scar. Simple excision or moderate doses of x-ray therapy lead to permanent cure; even curettage and cautery are sufficient.

When these lesions come to the pathologist, there is a certain paradox. In spite of their rapid growth, they consist of fairly well differentiated prickle cells with a strong tendency to keratinization. In some cases the picture is that of so-called pseudo-epitheliomatous proliferation, but in others I cannot distinguish it from true carcinoma having seen identical pictures in well-differentiated cancers of Broders grade I type which developed and grew slowly, but relentlessly, without self-healing tendencies. Various histologic features have been described (Binkley and Johnson,[3] Montgomery et al[6]) as enabling one to make a microscopic diagnosis of keratoacanthoma. None of them, in my opinion, is infallible. I prefer to admit my inability to make a definitive diagnosis of keratoacanthoma on histologic grounds alone and turn the responsibility over to the clinician who must decide on the basis of clinical features, namely, rapidity of growth in the face of well-differentiated, low-grade histologic characteristics. I want to emphasize that many of these self-healing carcinomas are truly invasive and destructive. Histologically, this is expressed in the inclusion of many elastic fibers in the tumor nests which penetrate deep to the level of the sweat coils. Clinically, the often disfiguring and irregular scar is evidence of this destruction. Keratoacanthomas are so common in my material, that I am sure many statistics of cure of squamous cell carcinoma of the skin must be revised.

The Activated Seborrheic Keratosis

Another vexing problem for the histopathologist is posed by lesions which usually have been present as innocent-looking moles, warts or keratoses for some time, but suddenly grow rapidly, bleed easily and worry the patient and the doctor. Depending on whether these tumors are pigmented or not, the clinician wants to rule out malignant melanoma or squamous cell carcinoma.

The pathologist can rule out melanoma easily since all pigment is in the epidermis and there are no nevus cells. It is more difficult to decide whether a given lesion is squamous cell cancer or just an irritated and inflamed seborrheic keratosis. The differentiation may be nearly impossible if only a small fragment was submitted. Here again, complete (though conservative) excision of a suspected lesion is preferable to curettage or a small biopsy.

Personally, I am convinced that squamous cell carcinoma is diagnosed too often on the basis of atypical cells and keratin whorl formation in lesions which are actually cutaneous papillomas of the seborrheic keratosis type and have become activated temporarily through irritation and inflammation. It would lead us too far to go into finer differential points. The main feature to ascertain is that the tumor is elevated above the skin surface and not invasive. The old adage still holds true that seborrheic keratosis is not a precancerous lesion. In my material of over a thousand seborrheic warts, many of which were submitted because of the suspicion of malignancy, cancerous transformation was found in less than 1 per cent.

Adnexal Epithelioma and Baso-Squamous Carcinoma

The next question I want to take up is that of the baso-squamous carcinoma. It was Darier and Ferrand[5] who pointed out in 1922 that many lesions which clinically looked like basal cell carcinoma had prickle or squamous cells in them. They thought that it was these lesions which accounted for treatment failures when relatively small doses of x-ray were applied. Doses of about 800-1000$_r$, which at that time were considered sufficient for basal cell carcinoma, would kill the basal elements in the mixed tumors and leave the potentially more dangerous squamous elements unharmed. Soon other authors (Montgomery,[13] Juon[7]) confirmed Darier's concept that mixed baso-squamous carcinomas made up 15 to 20 per cent of all skin cancers. The fact that they could be recognized only by microscopic examination gave the histopathologist the most important role in pretreatment diagnosis.

Darier's concept was simple and gave the pathologist objective criteria, because it is easy to tell

small dark-staining basal cells from larger and keratinizing prickle cells. Investigations of recent years, however, in this country especially by Lever,[8] have convinced many dermatopathologists that the presence of prickle cells and keratinization in basal cell cancers usually means attempted differentiation in the direction of hair follicles and hair. These tumors may be more radio-resistant because of higher differentiation, but they are not more highly malignant; particularly is there no danger of them transforming into squamous cell cancers. There are a few truly mixed carcinomas composed of basal cell portions and squamous cell portions, but these are rare.

We have learned that a high percentage of basal cell tumors shows signs of attempted differentiation either in their epithelial part or in their mesodermal stroma. Differentiation always mimics the cutaneous adnexa: hair and glands. Actually there is an entire spectrum from benign adenomas and cystic epitheliomas to the "undifferentiated" basal cell carcinoma.[17] And even that shows evidence of mutual dependence between epithelium and mesoderm. It remains a fibro-epithelial tumor and is not a completely autonomous carcinoma. With Lever and others, I prefer, therefore, to use the designation "basal cell epithelioma," because the dire threat of metastasis is absent. In my experience, I have never seen a metastasis from basal cell epithelioma, and some of the few published cases seem to suggest a need for re-investigation.

You may ask: Why, then, do a microscopic examination on clinically typical basal cell epitheliomas? Aside from the aspect of legal protection, there are several good reasons. The pathologist can advise the clinician about the growth habits of the tumor, whether it is a compact and relatively superficial growth, or penetrates deeper; whether it grows in thin compressed cords, especially in senile skin, and may be expected to extend deeper and farther laterally than gross inspection and palpation indicate. If a basal cell epithelioma shows a high degree of adnexal differentiation, it may be expected to be more radio-resistant. If it has a large amount of connective tissue stroma or grows in an infiltrating manner, it is not suited for curettage and cautery or the Sherwell method.

Histologic structure, however, is not always indicative of radio-sensitivity. Some tumors that differ in no way from run-of-the-mill basal cell epitheliomas in their morphology seem to be completely radio-resistant from the beginning. They are apt to develop into the dreaded terebrans type and may kill even though they don't metastasize.

If an epithelioma recurs after what seems adequate irradiation or surgery, one should suspect something extraordinary and should first—by adequate biopsy, possibly from several places—ascertain the growth habits and extent of the tumor. If the pathologist cannot find an adequate explanation, it is probably better to advise extensive excision, possible with skin grafting, or even the chemosurgery of Mohs.[12] This is especially true in certain locations like nose, periorbital region, and ear, where extension along lymph channels, nerves and tissue septa may make the tumor inaccessible to dermatologic therapy.

Superficial Epitheliomas and Keratoses

A happier picture can be painted concerning the various types of superficial epitheliomatosis. Whether we are dealing with the very superficial basal cell epitheliomas that occur most commonly on the trunk, or with Bowen's carcinoma *in situ,* better understanding of the biology of these lesions has put dermatologic therapy on a firmer and scientifically more defensible basis. These lesions are the true domain for curettage and cautery.

Madsen[10] has shown that the so-called multicentric basal cell epitheliomas are not truly multicentric in the sense that there is a field of skin in which multiple foci spring up in an unpredictable manner. These tumors grow from one center as a plate or ring, which secondarily may break up into islands through self-healing processes. If one is sure to destroy all the nests in the center and periphery, no recurrence need be feared. We also must recognize that these tumors do not invade the pars reticularis of the corium and that the epithelial nests are neatly wrapped up in their own mesodermal stroma and that the entire plate is usually demarcated by inflammatory infiltrate. There is thus no necessity to excise deeply or to use penetrating radiation. The dermatologist's curette can remove the entire tumor by scraping it off the tough reticular portion of the corium. The denuded surface re-epithelizes from the periphery.

Similar reasoning applies to Bowen's dermatosis, as long as we can be sure that it has not yet become invasive. Being a purely epidermal process

with a usually well developed zone of sub-epidermal inflammatory infiltrate, it is removed easily by curettage without undue loss of tissue. Re-epithelization usually proceeds quickly because hair follicles and sweat glands generally persist in skin affected by this precancerous process.

In both diseases the patient can be saved expensive hospitalization for skin grafting, or high doses of x-ray therapy which may only lead to later sequelae including the possibility of squamous carcinoma.

Even more favorable is the outlook in keratosis senilis, especially of the face. Actually all that need be destroyed is the anaplastic epidermis.[16] This may be done again by curettage or by electrocautery and in selected cases, even by chemical means such as the use of bichloracetic acid. In extensive cases, modern planing procedures hold good promise. Whoever, though, attempts treatment of senile keratoses should be definitely sure that the lesion has not yet become invasive squamous cell carcinoma. Many cases require microscopic examination, which usually can be performed satisfactorily on curetted material.

Lichen Sclerosus et Atrophicus and Kraurosis

Actually, I dislike to use the term "kraurosis vulvae" because it is so indefinite as to be misleading. Kraurosis is one of those old clinical diagnoses that hang on and have certain connotations which are not warranted in view of newer investigations. Kraurosis actually just means an atrophic state of the vulva associated with pruritus, but it is so closely associated in many minds with the threat of vulvar carcinoma that vulvectomy often is performed by gynecologists as a prophylactic measure. Dermatologists have recognized for a number of years (Wallace and Nomland)[26] that most cases of clinical kraurosis vulvae are lichen sclerosus et atrophicus involving the genitals. It may or may not be associated with typical lesions on other parts of the skin surface. Lichen sclerosus et atrophicus is not a precancerous lesion *per se*. If it persists for many years with the pruritus that is severe in vulvar localization, continued excoriation of the atrophic skin with resulting fissuring, repeated infection, and scarring may eventually lead to leukoplakia, and the leukoplakia may lead to cancer. However, in my experience, and I'm not infrequently consulted by pathologists concerning this question, nine out of ten specimens diagnosed "kraurosis" are pure lichen sclerosus et atrophicus without any evidence of leukoplakia or carcinoma. Biopsies should always be performed in these cases so that vulvectomy, which is a severe and mutilating procedure, is avoided. General pathologists and gynecologic surgeons gradually recognize the existence of the dermatologic entity "lichen sclerosus et atrophicus," a disease that can be ameliorated, though perhaps not cured, by dermatologic treatment, especially the application of steroid ointments.

Summary

Let me conclude with the thought that trying to understand cutaneous disease, and especially neoplastic disease of the skin, in biologic terms rather than by ideas attached to a fixed terminology can lead not only to better theoretical insight, but to improved practical therapy.

References

1. Allen, A. C., and Spitz, S.: Malignant melanoma; a clinicopathologic analysis of the criteria for diagnosis and prognosis. Cancer, 6:1-45 (Jan.) 1953.
2. Becker, S. W.: Diagnosis and treatment of pigmented nevi; consideration of some of the pitfalls. Arch. Dermat. & Syph., 60:44-65 (July) 1949.
3. Binkley, G. W., and Johnson, H. H.: Keratoacanthoma (molluscum sebaceum). A.M.A. Arch. Dermat., 71:66-72 (Jan.) 1955.
4. Bowman, H., and Pinkus, H.: Keratoacanthoma (Molluscum sebaceum). A.M.A. Arch. Path., 60: 19-25 (July) 1955.
5. Darier, J., and Ferrand, M.: L'epitheliome pavimenteux mixte et intermediaire. Ann. dermat. et syph., 3:385-406, 1922.
6. de Moragas, J. M.; Montgomery, H., and McDonald, J. R.: Keratoacanthoma vrsu squamous-cell carcinoma. A.M.A. Arch. Dermat., 77:390-395 (April) 1958.
7. Juon, M.: Ueber die metatypischen Formen der Hautepitheliome. Arch. Dermat. u. Syph., 157:81-96, 1929.
8. Lever, W. F. Pathogenesis of benign tumors of cutaneous appendages and of basal cell epithelioma, I. and II. Arch. Dermat. & Syph., 57:679-724 (April) 1948.
9. Lund, H. Z., and Stobbe, G. D.: Natural history of pigmented nevus; factors of age and anatomic location. Am. J. Path., 25:1117-1156 (Nov.) 1949.
10. Madsen, A.: The histogenesis of superficial basal cell epitheliomas. A.M.A. Arch. Dermat., 72:293 (July) 1955.
11. McMullan, F. H., and Hubener, L. F.: Malignant melanoma. A.M.A. Arch. Dermat., 74:618-619 (Dec.) 1956.
12. Mohs, F. E., and Lathrop, T. G.: Modes of spread of cancer of the skin. Arch. Dermat. & Syph., 66:427-439 (Oct.) 1952.
13. Montgomery, H.: Basal-squamous-cell epithelioma. Arch. Dermat. & Syph., 18:50-73, 1928.
14. Pack, G.: In discussion of Schoenfeld and Pinkus.[20]
15. Pinkus, H.: Premalignant fibroepithelial tumors of skin. Arch. Dermat. & Syph., 67:598-615 (June) 1953.
16. Pinkus, H.: Keratosis senilis; a biologic concept of its pathogenesis and diagnosis based on the study of normal epidermal and 1730 seborrheic and senile keratoses. Am. J. Clin. Path., 29:193-207, 1958.

(Continued on Page 594)

Significance and Treatment of Prostatic Nodules

By Ormond S. Culp, M.D.
Rochester, Minn.

MORE PATIENTS are seeking or are being advised to have total prostatectomy today than ever before. Several factors have contributed to this unprecedented interest in the procedure.

A plethora of cancer crusades has made an ever-increasing host of males conscious of prostatic malignancy. Repeated admonitions to palpate prostates routinely have been heeded by more general practitioners and internists. Advent of the retropubic approach to the prostate has created a new legion of proponents of total prostatectomy. Perineal prostatectomists have continued to extoll the virtues of their favorite techniques.

Probably the most poignant of all motivating factors has been the grim realization that surgical extirpation continues to be the one hope for "cure" of prostatic cancer. Despite brilliant, even epoch-making research on carcinoma of the prostate during the past two decades, ensuing therapeutic innovations have proved to have only limited palliative values.

In most instances the proposed candidate for radical treatment was found during routine digital examination of the prostate to have an indurated area in the gland. Since these lesions are being detected more frequently, it seems appropriate and timely to consider the true significance of such nodules and a rational plan for their management.

Diagnostic Considerations

Carcinoma of the prostate has been described as having a characteristic induration which simulates stony-hard consistency. Although experience undoubtedly improves one's diagnostic acumen, carcinomas of the prostate are far from stereotyped and it is doubtful if anyone ever develops perfect "tactus eruditus." Some of the potential pitfalls in the simple palpation of prostatic nodules are illustrated by the following cases.

Case 1.—A patient aged forty-one years had been treated successfully for lymphosarcoma of the neck and had a stony-hard nodule over the base of the right lateral lobe of an otherwise normal prostate (Fig. 1). It seemed to be typical of early malignancy. Biopsy showed benign hyperplasia.

Case 2.—A patient aged fifty-seven years had a typical area of third-degree induration on the left which

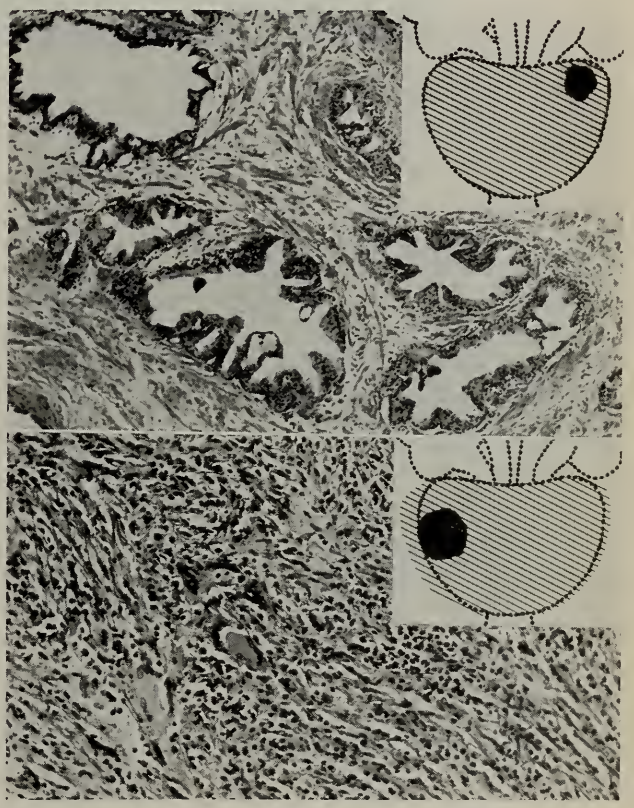


Fig. 1. Case 1 *(above)*. *Inset,* diagram of unenlarged prostate showing indurated nodule at base of right lateral lobe. Photomicrograph of biopsy specimen taken from nodule shows benign hyperplasia (hematoxylin and eosin; reduced from x65). (Reproduced with permission from: Culp, Ormond S., and McDonald, John R.: Importance of Frozen Sections in Evaluating Prostatic Nodules. *J. Urol.,* 72:443-449 [Sept.] 1954.)

Fig. 2. Case 2 *(below)*. *Inset,* diagram of prostate showing slightly enlarged left lobe which contains a palpable nodule. Photomicrograph of biopsy specimen taken from nodule shows granulomatous prostatitis. Note giant cells (hematolxylin and eosin; reduced from x160). (Reproduced with permission from Culp, Ormond S., and McDonald, John R.: *J. Urol.,* 72:443-449 [Sept.] 1954.)

Read at the Annual Session meeting of the Michigan State Medical Society, Detroit, Michigan, October 1, 1958.

From the Section of Urology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota. The Mayo Foundation is a part of the Graduate School of the University of Minnesota.

was interpreted clinically as early cancer (Fig. 2). Frozen-section examination revealed localized granulomatous prostatitis.

ance on this type of evidence alone. One must be exceedingly careful to correlate the locations of calculi and induration.

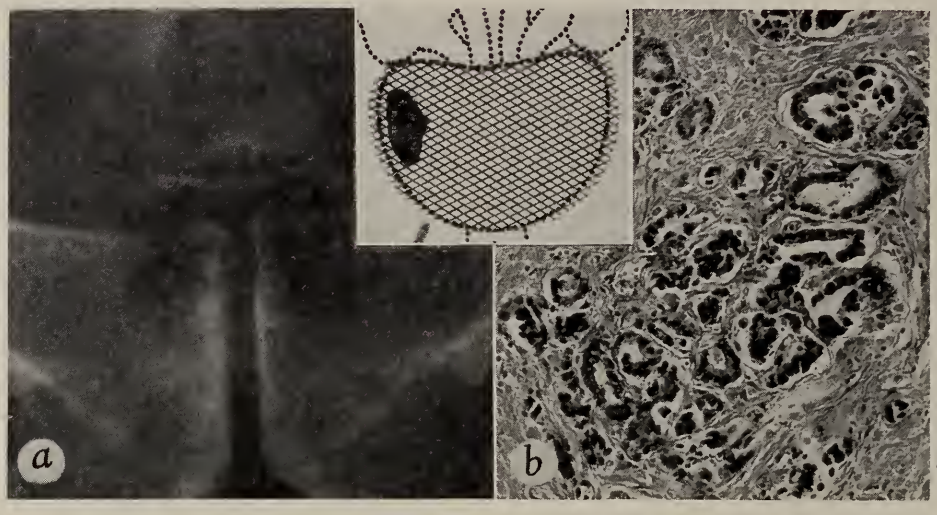


Fig. 3. Case 3. *Inset,* diagram of diffusely indurated prostate with a hard nodule near the left lateral border. *a.* Plain roentgenogram showing multiple prostatic calculi. *b.* Photomicrograph of biopsy specimen taken from nodule showing adenocarcinoma (hematoxylin and eosin; x135). (Reproduced with permission from Culp, Ormond S., and McDonald, John R.: *J. Urol.,* 72:443-449 [Sept.] 1954.)



Fig. 4. Case 4. Inset, diagram of prostate showing palpable nodule on right. Photomicrograph of biopsy specimen taken from nodule shows adenocarcinoma (hematolxylin and eosin; reduced from x160). (Reproduced with permission from Culp, Ormond S., and McDonald, John R.: *J. Urol.,* 72:443-449 [Sept.] 1954.)

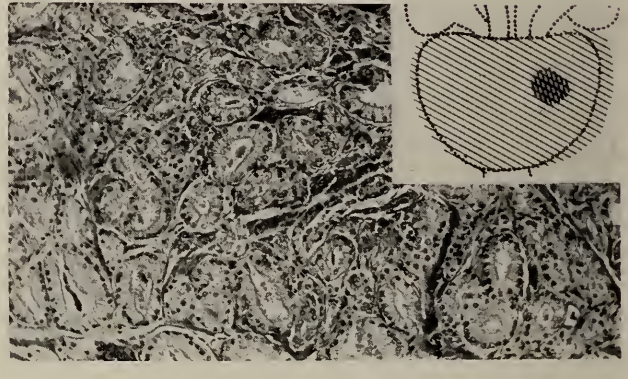


Fig. 5. Case 5. Inset, diagram of slightly enlarged prostate showing ill-defined nodule on right side. Photomicrograph of biopsy specimen taken from nodule shows adenocarcinoma (hematoxylin and eosin; reduced from x110). (Reproduced with permission from Culp, Ormond S., and McDonald, John R.: *J. Urol.,* 72:443-449 [Sept.] 1954.)

Case 3.—A fifty-seven-year-old patient with diffuse induration in the prostate had been found to have prostatic calculi, and no treatment had been advised (Fig. 3*a*). One portion on the left was much firmer than the remainder of the gland. Frozen-section examination disclosed adenocarcinoma (Fig. 3*b*).

Demonstration of the opacities in a suspicious prostate does not preclude coexistence of malignancy. (There were two other cases similar to Case 3 in this series). Yet many individuals undoubtedly have been dismissed with glib reassur-

Case 4.—A patient aged sixty-three had a smooth, movable nodule in the right lateral lobe which was examined annually for eleven years and thought to be a simple adenoma. Between the 1951 and 1952 examinations it became larger and firmer (Fig. 4). Biopsy revealed adenocarcinoma.

Case 5.—A rather ill-defined nodule, only slightly firmer than the remainder of the gland, was noted in a patient aged sixty-three (Fig. 5). Most examiners interpreted it as a small adenoma but it proved to be grade 3 adenocarcinoma. Nodules in nine other cases seemed benign but proved to be malignant.

Without histologic confirmation of the diagnosis there will be inevitable errors of omission as well as of commission. But is this clinical fallibility necessarily significant or important?

During the past eight years, exploration was performed in 107 patients because each had a nodule in the prostate that seemed to be typical of early carcinoma. Eighty underwent radical (or total) prostatectomy because biopsy revealed carcinoma. All of these eighty patients became sexually impotent even though the average age of the group at the time of operation was fifty-nine years. Three were less than fifty years of age.

In twelve cases the hard nodule proved to be a benign adenoma. Six of the patients had enlarged prostates, and simple enucleation was performed because of obstructive symptoms. The other six were asymptomatic and the biopsy sites were merely closed. In twelve additional instances, the indurated area was found to represent localized granulomatous prostatitis. Ages of these twenty-four patients with benign nodules varied from forty-one to sixty-four years with an average of fifty-eight. No one in this group had any significant change in his libido or potentia as a result of the perineal procedure.

Exploration showed that the carcinoma unexpectedly had extended far beyond the capsule in the remaining three cases, because of which contemplated total prostatectomy was abandoned and the patients received only endocrine therapy. They are living and comfortable seven, twenty-nine and forty-three months later. It is regrettable that the same decision was not made in a similar but earlier case. That patient died of generalized metastasis within two years, and perhaps the operation helped to disseminate the carcinoma despite subsequent endocrine measures.

It is apparent, therefore, that sacrifice of the entire prostate entails a definite physiologic price which may not be too great for possible "cure" of a potentially lethal disease but one which the unafflicted may not accept too philosophically. Inasmuch as questionable lesions are being detected in relatively young patients, this aspect of the problem cannot be ignored. For obvious medicolegal reasons it is best to discuss this eventuality frankly prior to exploration and biopsy. Several patients with suspicious nodules were unwilling to accept this possibility and consequently were not operated on. At least three of these now have metastasis.

Many ingenious techniques have been devised for histologic study of nodules in the prostate, but only perineal exposure of the gland affords direct access to the entire posterior lamella where lesions of this type usually originate. Biopsy *via* the perineum, therefore, should have the greatest potential for indicating unequivocally the *bona fide* candidates for so-called radical operations.

The combination of frozen-section examination and simultaneous prostatectomy of appropriate type has no parallel in other diagnostic or therapeutic schemes. This theoretically ideal one-stage procedure has attained only limited favor, however, owing to the exacting technical details of perineal dissection, fear of postoperative complications, skepticism regarding the diagnostic value of frozen sections and doubts concerning the therapeutic merits of total prostatectomy.

Technique of Perineal Operation

The perineal operation does demand meticulous attention to detail and permits little deviation from proper planes of dissection if one is to avoid the rectum and the urethral sphincter. But it is not shrouded in mysticism and can be mastered by anyone who resolves to do so. In obese patients, far greater technical difficulties are likely to be encountered with the retropubic method.

There have been several modifications of the original Young operation. Such technical variations are irrelevant so long as the surgeon obtains adequate exposure, achieves his primary purpose and gets gratifying results with reasonable regularity. At least a few crucial maneuvers are inevitable during any surgical procedure.

I still prefer the inverted U incision shown in Figure 6*a*. After division of the medial mass of fat and fibrous tissue that has been freed from the rectum (Fig. 6*b*), it is most important to be certain that the true central tendon has been sectioned before proceeding further (Fig. 7*a*). The dissection must be posterior to the transverse perineal muscles and is accomplished most easily by following the anterior rectal wall to the vicinity of the prostate (Fig. 7*b*). A urethral sound or Lowsley tractor is then inserted for accurate identification of the urethra. The so-called recto-urethralis muscle may be either well-developed or rather nebulous. But the apex of the prostate should be obvious. If uncertainty exists about the extent of the rectal reflection on the prostate, a finger in the rectum will provide better orientation.

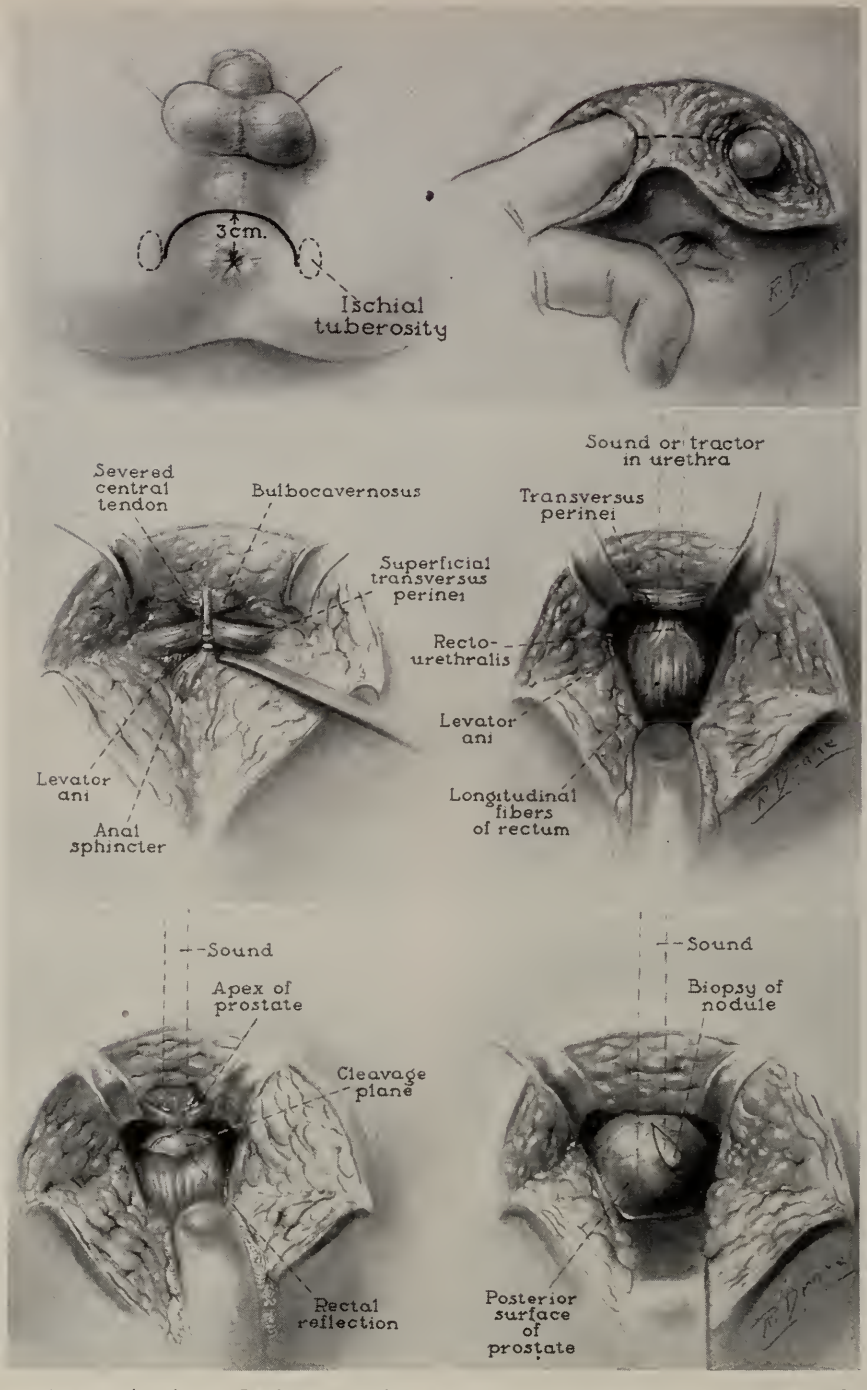


Fig. 6 *(top)*. *a.* Perineal incision started 3 cm. anterior to the anus and extended to the ischial tuberosities. *b.* Superficial tissues freed from the rectum after opening the ischiorectal fossae. These are divided transversely as shown by dotted line.

Fig. 7 *(center)*. *a.* The central tendinous juncture of muscles must be servered to provide a proper cleavage plane. *b.* Blunt dissection posterior to the transverse perineal muscles exposes the longitudinal fibers of the rectal wall, followed to the recto-urethralis muscle at the apex of the prostate.

Fig. 8 *(bottom)*. *a.* With the sound or tractor in the urethra, the recto-urethralis muscle near the apex of the prostate is divided to expose the anterior reflection of the rectum. Use of the plane of cleavage between the layers of Denonvilliers' fascia simplifies freeing the rectum. *b.* With the rectum out of the way, the prostate can be levered higher for suitable biopsy.

(Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

After any recto-urethralis fibers have been divided, a cleavage plane is established between the layers of Denonvilliers' fascia (Fig. 8*a*). Usually this can be developed most readily and safely by working laterally over the prostate. The rectum is retracted posteriorly and the prostate is levered high into the wound for as many biopsy specimens as may be necessary to settle the diagnosis (Fig. 8*b*). Usually the entire suspicious area is excised for microscopic study.

It should be noted that very little lateral dissection is employed and that the region of the urogenital diaphragm is not disturbed during this type of exposure. Preservation of lateral blood vessels and nerves may help to avoid impotence in those individuals who require only biopsy.

Histologic Examination.—Frozen sections are prepared according to a standard technique which is soon mastered even by fellows temporarily assigned to surgical pathology. Thin sections are stained with Terry's polychrome methylene blue (Fig. 9).

The carcinomas of the prostate that are most difficult to recognize are those that produce well-formed acini. When the acinus (1) loses its papillary projection and (2) becomes smaller and (3) when the cytoplasm takes up fat and appears clear, one should suspect carcinoma. All three of these criteria must be met to make a definite diagnosis of carcinoma. Collars of tumor cells around nerves help to confirm the presence of malignancy.

Each piece of tissue used for frozen-section study in the previously mentioned 107 cases was examined later by means of conventional permanent sections. The original diagnosis was confirmed in every instance. Most of the maligning of the fresh frozen-section technique has stemmed from individuals inexperienced in the method and disinterested in mastering the procedure. The pathologist who examines questionable lesions of the breast and little else by the fresh-frozen technique is probably inadequately prepared to interpret prostatic lesions by this method.

If biopsies of this type had not been employed, twenty-seven of the 107 patients in this series would have lost their prostates needlessly or uselessly while ten others would still be harboring their carcinomas. If rectal palpation alone had been used to determine the surgical fate of these 107 patients, more than one-third of the group would have been mistreated.

Procedure for Operable Carcinoma.—When operable carcinoma is demonstrated, the urethra is divided at the apex of the prostate (Fig. 10), a

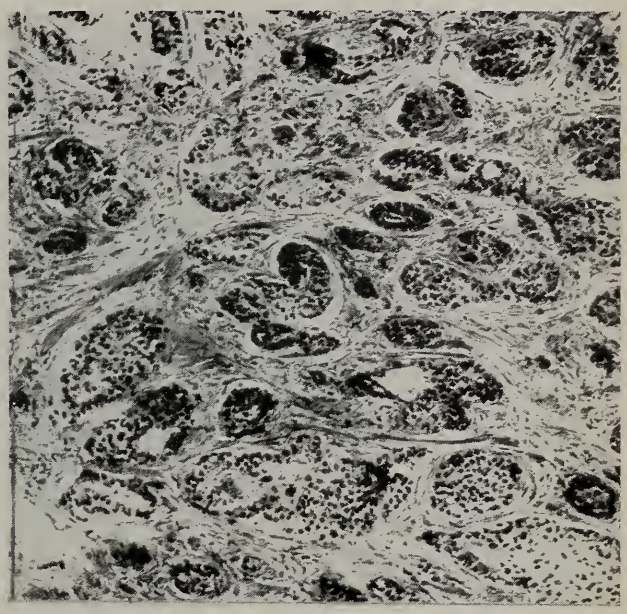


Fig. 9. Adenocarcinoma of prostate. Note small lumina, lack of papillary infoldings, and cells with clear cytoplasm (fresh frozen section stained with Terry's polychrome methylene blue; x95). (Reproduced with permission from Culp, Ormond S. and McDonald, John R.: *J. Urol.*, 72:443-449 [Sept.] 1954.)

Young prostatic tractor is inserted, the puboprostatic ligaments are divided and the juncture of prostate and bladder is exposed.

The entire circumference of the bladder is incised close to the prostate and a cleavage plane is established between the bladder and the seminal vesicles (Fig. 11). Care must be taken to avoid the ureteral orifices when the trigone is incised. It is prudent to catheterize the ureters in some instances. But it is equally important to incise the entire muscularis over the trigone to avoid superficial stripping of the mucosa and submucosa. A gauze sponge serves as an excellent tractor and does not obstruct vision.

The seminal vesicles and overlying fascia are removed with the prostate (Fig. 12*a*). The bladder may be anastomosed with the membranous urethra in many ways. Some surgeons prefer to reduce the size of the vesical aperture with a purse-string suture. Others insist upon direct approximation of vesical and urethral mucosa. I still employ the Vest method of traction sutures and splint the anastomosis with a 22 F. Foley catheter (Fig. 12*b* and *c*). The excess in the

vesical defect usually is closed in the form of an inverted V to ensure lateral positioning of the ureteral orifices (Fig. 13*a*).

The levator ani muscles are brought together

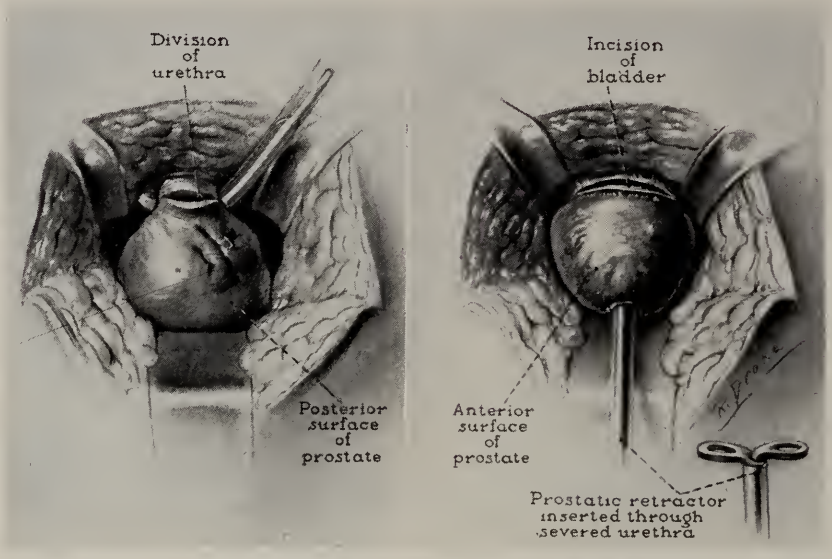


Fig. 10. *a*. The biopsy site is closed and a clamp is placed around the urethra if the gland is to be removed. *b*. After division of the urethra and the puboprostatic ligaments, the tractor in the prostatic urethra helps expose the anterior juncture of the prostate and bladder. (Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

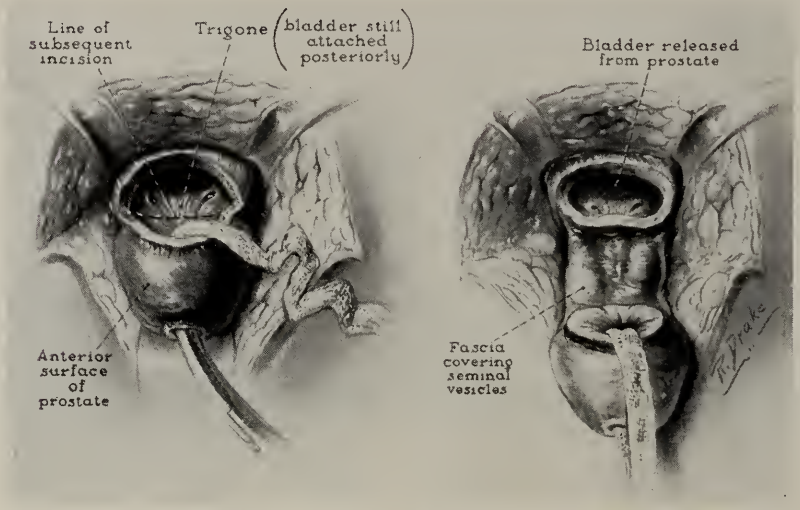


Fig. 11. *a*. Incision of the bladder anteriorly and laterally reveals the trigone. The ureters may be catheterized. *b*. Division of the trigone and upward stripping of the floor of the bladder exposes the anterior fascia covering the seminal vesicles. (Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

behind a Penrose drain and the subcutaneous tissues and skin are closed with interrupted sutures (Fig. 13*b*). Both vasa are ligated in the scrotum because epididymitis occurred occasionally when these ducts were left open in the perineum and need not and does not compromise the final result. The perineal drain is removed after twenty-four to forty-eight hours and the urethral catheter is removed when the perineum appears to be healed (usually seven to ten days).

Comment.—Unfortunately, there is reason to suspect that the radical operation has been employed promiscuously at times. It is imperative to establish clear-cut criteria for the selection of candidates for this procedure.

One must not ignore the fact that five-year survival rates following palliative measures have been comparable to published five-year rates following total prostatectomy. It is the ten-year survival rate that may vindicate this procedure.

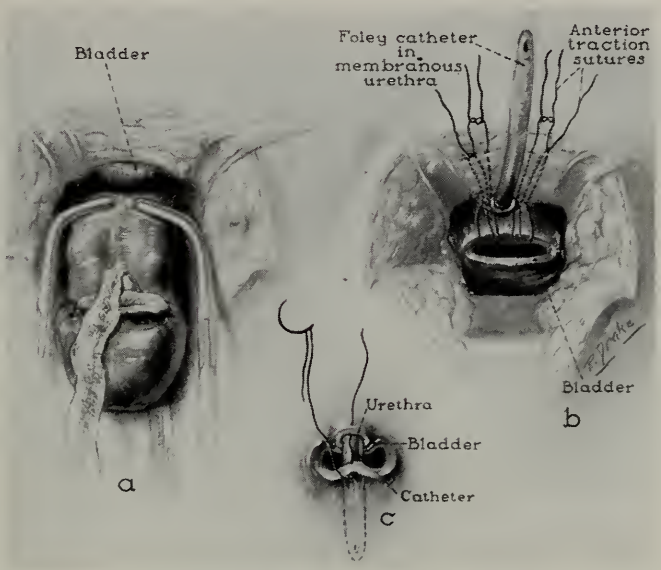


Fig. 12. *a.* The seminal vesicles, ampullae of the vasa and adjoining investments are clamped, divided and ligated as deep as feasible. *b.* Anastomosis started with three mattress traction sutures in the bladder. The ends are carried through the urogenital diaphragm and tied subcutaneously. The catheter helps identify the membranous urethra. *c.* The middle of the trigone is sutured to the superficial edge of the urethra. (Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

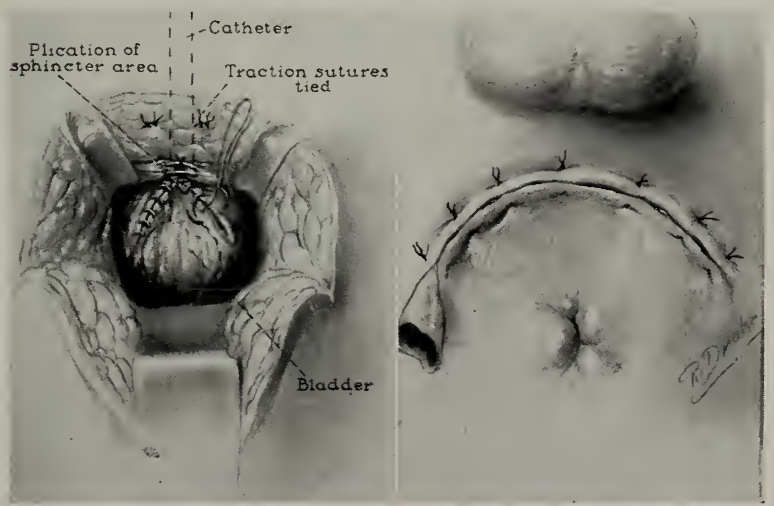


Fig. 13. *a.* Anastomosis completed over an indwelling catheter with a continuous catgut suture. The sphincter area may be plicated. *b.* After the levator ani muscles have been approximated with catgut, the skin is closed with interrupted silk sutures. A Penrose drain is left in the wound. (Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

Prerequisites to Radical Prostatectomy

The following prerequisites have been especially helpful in identifying ideal lesions for radical prostatectomy:



Fig. 14. *a.* Plain roentgenogram showing sharply demarcated area of increased density in left ilium. Lesions of this type may be misinterpreted as metastatic growths. *b.* Roentgenogram three years later showing no change in size or configuration of the benign sclerotic island.

1. *Reasonable Life Expectancy.*—Serious concomitant cardiac disease or comparable ailments should contraindicate radical treatment. While it is hazardous to judge the life expectancy of any person by his chronologic age, radical prostatectomy is hardly justified for patients past seventy years of age. Few individuals in the eighth decade can expect to live another ten years regardless of any prostatic lesion.

2. *No Evidence of Metastasis.*—Obvious roentgenologic evidence of metastasis precludes hope for "cure." But one must be cautious about the interpretation of changes in bone. Some patients may have unrelated Paget's disease (as did two in this series) or islands of sclerotic bone that need not contraindicate the operation (Fig. 14). There have been five similar bone islands in this group of patients and so far none has changed during periods of one to five years. On the other hand, sciatic or low back pain unrelated to activity must be viewed with concern. A trial with estrogens may indicate quickly the probable presence of metastatic lesions despite normal appearance of roentgenograms.

3. *Small Area of Induration.*—Preferably the palpable prostatic nodule should not be more than 1 to 1.5 cm. in diameter. Although 20 per cent of the lesions in this series conformed to the size anticipated by palpation, the others were much more extensive histologically than palpation had implied. Even gross evaluation of the specimen was misleading, for seven patients had unexpected involvement of the seminal vesicles. Most of the nodules that seemed to be well localized (Fig. 15*a*) and that proved to be true carcinomas (Fig. 15*b*) were found to be fairly extensive tumors (Fig. 15*c*). When induration involves all or most of a lobe there is overwhelming evidence that the growth has extended beyond the capsule and is no longer amenable to this type of treatment. For this reason an even larger group of patients was rejected as being unsuitable for the procedure.

Postoperative Morbidity

There has been considerable speculation about the amount of morbidity that may ensue after radical perineal prostatectomy.

Incontinence.—Only one patient has had persistent incontinence of urine and has had to wear an appliance. Some individuals had complete control when dismissed from the hospital. Most of the patients had varying degrees of temporary stress incontinence which disappeared in one to three months.

Fistula.—There have been no persistent perineal urinary fistulas. In one case the rectum was opened during the operation but the defect was recognized and repaired and it healed. It is best to reinforce such closures with interrupted, nonabsorbable sutures in the outer coats of the rectal

wall and to drain the perineum for at least ten days.

Stricture.—Only one stricture has been troublesome. Seven others disappeared promptly after one or two simple dilatations.

unrelated problems enhances the general prognosis.

Therapeutic Results

No doubt there always will be some practitioners who find it difficult to be reconciled to total pros-

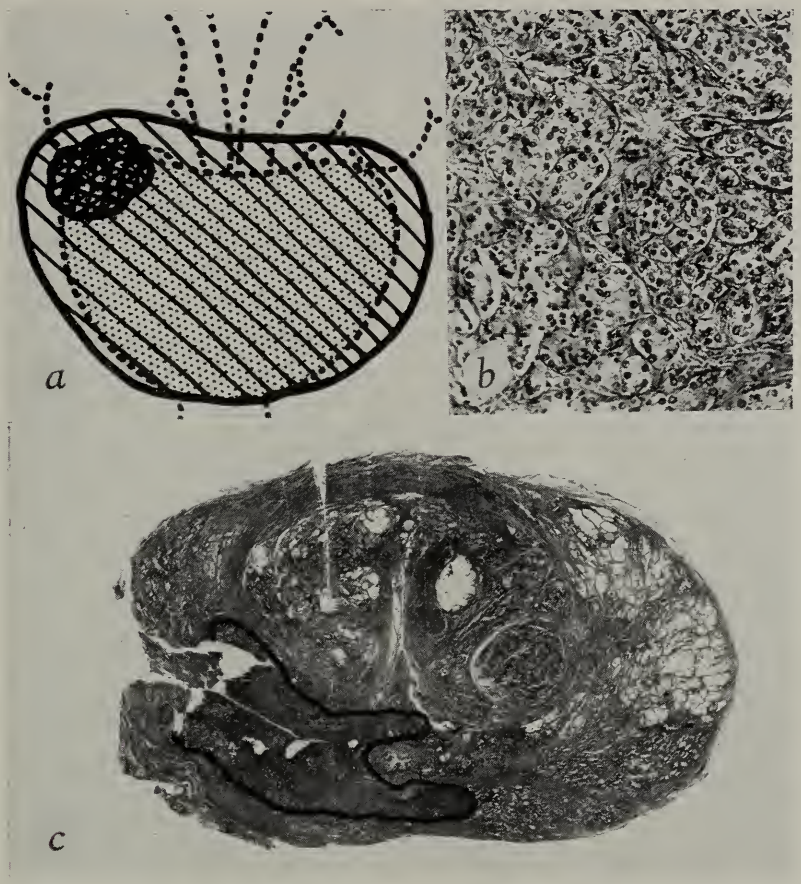


Fig. 15. *a.* Third-degree induration in the left lobe of the prostate. The patient took testosterone for eight years. *b.* Section of the same area showing carcinoma (hematoxylin and eosin; x100). *c.* Complete transverse section of the prostate showing further invasion of the posterior lamella (hematoxylin and eosin; x2). (Reproduced with permission from Culp, Ormond S.: *S. Clin. North America,* August, 1951, pp. 1091-1110.)

Radical prostatectomy, therefore, does not entail any greater hazards than the more conservative procedures on the prostate with the exception of impotence. All of the above-mentioned sequelae have been known to occur even after transurethral resection.

Late undesirable developments have more or less followed the patterns that might be anticipated in patients of this age group irrespective of their original problems. Three patients have had nonfatal myocardial infarcts, two have survived cerebrovascular accidents, one now has leukemia, another has active pulmonary tuberculosis and one required subsequent nephrectomy because of a hypernephroma. Obviously none of these eight

tatectomy in any situation. It must be conceded that some patients with carcinoma of the prostate have lived normal life spans without symptoms or metastasis. But no one has a crystal ball that will separate "harmless" lesions from the potentially lethal ones. A few skeptics even contend that no cancer of the prostate is curable once it can be diagnosed unequivocally.

Although the current series of rather carefully selected cases has not been followed long enough to have statistical significance, a few pertinent facts have become apparent.

Forty-eight patients had total prostatectomy at least five years ago. Three died of coronary occlusion (forty-three days, four months and three

years respectively after operation). Another succumbed to bronchogenic carcinoma. Only one patient died of prostatic cancer. Forty-three (89.6 per cent) are living five to eight years after operation. Seven of these now have local recurrence or distant metastatic lesions. Some of the latter did not become evident until 5 years after total prostatectomy. These seven patients responded promptly to estrogenic treatment or castration, or both, but no doubt each is doomed.

Endocrine measures have been withheld in this series until it was evident that the patient was in trouble. The wisdom of this policy has been questioned by those who insist that primary therapy should be all-inclusive. As yet there is no conclusive evidence that one is derelict in delaying strictly palliative adjuncts until palliation is actually needed.

Thirty-six of the 48 patients (75 per cent) are free of recurrence or metastatic lesions five to eight years after total prostatectomy alone. So far these results are encouraging and exceed those claimed for any other therapeutic plan.

In this series of eighty total prostatectomies the grade of the lesion has not been an accurate index of subsequent behavior. Twenty-three of the lesions were of grade 1, fifty-two of grade 2, and five of grade 3. Some patients with grade 1 adenocarcinoma now have metastatic growths or recurrences while others with grade 3 lesions are free of such complications.

Total prostatectomy has not been employed as a palliative procedure inasmuch as less traumatic measures are available. If one adheres rigidly to sound basic criteria some lesions may still be discouragingly deceiving, but the true potential of the radical operation will be more evident. It is doubtful if results published to date actually reflect this potential, for too frequently the operation has been employed in advanced cases or used in combination with other types of therapy which in turn have masked the results.

Summary

To initiate or deny irreversible definitive therapy solely because of impressions derived from palpation of the prostate is fraught with danger. Not all nodules of so-called third-degree induration are malignant, and some carcinomas are only slightly indurated. Histologic confirmation of the clinical diagnosis is imperative if total prostatectomy is to be employed judiciously.

Fresh frozen-section biopsy can be reliable, and perineal exposure of the gland offers the best opportunity for adequate appraisal of the prostate. If benign lesions are not encountered occasionally, it is proof that more nodules should be investigated.

Total prostatectomy still seems to be the treatment of choice in properly selected cases but there must be strict adherence to rigid criteria in the choice of candidates or the operation will be abused as it undoubtedly has been in the past.

The combination of proper selection of patients, timely investigation of suspicious nodules, histologic confirmation of diagnosis, and meticulous attention to operative details should prevent therapeutic injustices and enhance the value of total prostatectomy.

THERAPY OF SKIN CANCER

(Continued from Page 580)

17. Pinkus, H.: Pathogenesis of premalignant and malignant conditions of the skin; clinical, histologic and differential considerations. A.A.A.S. Symposium on Skin, Indianapolis, December, 1957. In press.
18. Pinkus, H., and Gould, S. E.: Extramammary Paget's disease and intraepidermal carcinoma. Arch. Dermat. & Syph., 39:479-502 (March) 1939.
19. Pinkus, H.; Rogin, J. R., and Goldman, P.: Eccrine poroma; tumors exhibiting features of the epidermal sweat duct unit. A.M.A. Arch. Dermat., 74:511-521 (Nov.) 1956.
20. Schoenfeld, R. J., and Pinkus, H.: The recurrence of nevi after incomplete removal. A.M.A. Arch. Dermat., 78:30-35 (July) 1958.
21. Shaffer, B.: Identification of malignant potentialities of melanocytic (pigmented) nevus. J.A.M.A., 161:1222-1226 (July 28) 1956.
22. Shaw, C.: Benign pigmented nevi; a survey of treatment by dermatologists. Southern M. J., 46:286-290 (March) 1953.
23. Spitz, S.: Melanomas of childhood. Am. J. Path., 24:591-610, 1948.
24. Stegmaier, O. C.: Natural regression of the melanocytic nevus. J. Invest. Dermat.: In press.
25. Traub, E. F., and Keil, H.: The "common mole": its clinicopathologic relations and the question of malignant degeneration. Arch. Dermat. & Syph., 41:214-252 (Feb.) 1940.
26. Wallace, E. G., and Nomland, R.: Lichen sclerosus et atrophicus of the vulva. Arch. Dermat. & Syph., 57:240-254 (Feb.) 1948.
27. Walton, R. G.,; Sage, R. D., and Farber, E. M.: Electrodesiccation of pigmented nevi. A.M.A. Arch. Dermat., 76:193-196 (Aug.) 1957.

12 East Fourth Street
Monroe, Michigan

"Yesterday's Hopeless--Now Curable" in Dermatology

By Morris Leider, M.D.
New York, New York

THE theme of this meeting, "Yesterday's Hopeless—Now Curable" is very catchy. It creates a spirit somewhat like what must pervade revivalist meetings. Great hopes are raised. Some of that is to the good. We sure need some hope these days, but it must be tempered hope.

There are diseases that all our yesterdays were indeed hopeless, and now are curable or sufferably alleviable. But no one, I am sure, since we are hard-headed realists, will come away from this meeting believing that immortality is at hand. It is possible these days to surmount the fatal dangers of some diseases and, in general, to survive longer. The world can become a pleasanter place to live and die in—although the way it is going in these ballistic-missile days, euthanasia rather than utopia may be more to be striven or hoped for. I regret to have to say that we are all still in a death trap and that our days are numbered, but I hope it is still a large number for all of us.

Enough now with pessimism.

The development of modern means to manage some types of cutaneous diseases is a refutation of that time-worn and depreciatory statement that dermatologic patients never die and never get well. For example, up to about ten years ago, just about all patients with any type of pemphigus died. In the severer forms—which I will describe *in extenso* soon—the course of the disease was relentless to death in four to eighteen months, and in the less severe forms, life was protracted for a few years but so miserable that death was a mercy. In fact, in days past if a case that was taken to be pemphigus did not die, the correctness of the diagnosis came into doubt. Nowadays much of that is changed. Today most cases of the severer, invariably and quickly fatal forms are rescued, indeed cured; and the less severe forms are further ameliorated. Thus for pemphigus, at least, both the "never-die" falsehood in dermatology and the "never-get-well" libel upon dermatology are rebutted. Patients with pemphigus all used to die; now most get well. Q.E.D.

Somewhat more in the same vein, there are dermatoses of such disfiguring or painfully disabling nature that hopeless psychological or physical suffering used to be the lot of patients so afflicted. Examples of this sort of thing are discoid lupus erythematosus which so commonly occurs on the face, severe pyodermas in the forms of impetigines, recurrent furuncles and carbuncles and certain non-pyogenic dermatoses like mutilating lupus vulgaris and late syphilis. These conditions are now quickly cured or greatly improved with reasonably safe measures.

Lower in the scale of expeditious remediability, even with the best modern agents and agencies, are conditions like disseminated or systemic lupus erythematosus, dermatomyositis, periarteritis nodosa and scleroderma. But still something more can be done for them now, much more than was ever possible formerly.

Finally, there are still some conditions like extensive forms of psoriasis, lichen planus, mycosis fungoides, leprosy and severe genodermatoses that are extremely difficult to help. They are today's remaining hopeless—but wait till tomorrow!

I think I have verbally painted a fair chiaroscuro around our theme, a picture in shades of white and black. Let us now turn to the high lights—aspects of the hopelessness that has been converted into hopefulness. I am going to describe and discuss four different diseases or disease categories which have yielded to four different types of modern agents.

Take the disease called pemphigus. What does it look like? What is its natural course? What is its cause? And how is it now well managed?

There are four forms of pemphigus, respectively designated: (1) Pemphigus vulgaris, (2) Pemphigus vegetans, (3) Pemphigus erythematous, and (4) Pemphigus foliaceus.

Pemphigus vulgaris is the common and most frequently encountered type. It usually starts sud-

Presented at the Michigan Clinical Institute, Detroit, March 19-21, 1958.

denly with an eruption of blisters. The patients are middle-aged and beyond. Both sexes are equally liable. It used to be thought that Jews were almost exclusively subject to the disease but one sees pemphigus in all people: a lot among Jews, less but still a lot among Latin or Mediterranean groups, some among Teutons and Scandinavians, a little in Negroes.

The natural course of the disease is blistering to death. The blisters are peculiar in that they arise unpredictably and quickly, anywhere on the body and upon otherwise normal-looking skin, that is, without preceding or coincidental surrounding erythema. There is no significant itching. The blisters, which arise within the epidermis by a process termed acantholysis, rupture and expose the rest of the underlying skin which then gets more or less secondarily infected. Large areas of the body surface may become denuded, creating a condition of constant leakage of serum. In stillness or movement there is pain and then the stink of purulence begins.

The nursing problem of a case of pemphigus in the bad old days used to be so formidable and the prognosis so bad that no proprietary hospital would admit such a case. They wet through sheets, blankets, and mattresses with malodorous secretions. They were in constant distress and could not feed from the pain of erosions in the mouth. They had the psychology and the facies and the stench of death. Such patients leaked away life, dying what has been called, for want of a better, a chemical death. They lost protein and electrolytes until more vital organs than the skin could not be sustained. It was the sort of death that occurs from severe and extensive burns—only slower and more tortured in its slowness.

Pemphigus vegetans is much the same except that it tends to begin in the intertriginous spaces like the axillae, the groins, the intergluteal cleft, under pendulous appurtenances like the breasts and in the creases of fatness. Blisters are less discernible as serum filled units but the process is an aggregation of acantholysis that becomes an oozing, smelly tumefaction. The "vegetans" part of the title should bring to mind the more slimy or moldy type of plant life. Patients with this form of pemphigus sooner or later "vulgarize," that is, they eventually show the common form of blistering of the disease prototype and in the sad natural course of things go into the usual sorry decline.

Pemphigus erythematosus is still another type that usually starts insidiously, commonly on the face, scalp, chest or upper part of the back in a form of lesions that for a long time may confuse one to think one is dealing with a more banal condition like seborrheic dermatitis, discoid lupus erythematosus or a superficial pyoderma. But it does not respond to what would ordinarily help these conditions. Then it dawns that one has pemphigus to contend with. Or, the patient begins to show signs of the common form. In time the usual thing happens: blistering misery to extinction.

Pemphigus foliaceus is the rarest and most peculiar type of the disease. In this form the acantholysis—the dissolution of the epidermis—is so superficial in the epidermis that blisters are not recognized as such. The picture produced is that of so much scaling; a wettish sort of scaling, not like something leaving but rather something constantly going on. Such patients live a long time. They ooze away and deteriorate very slowly, over years.

The cause of pemphigus is not known. No infectious agent has ever been proved to be the cause, although as you may imagine, many have claimed recovery or culture of this and that microorganism. It is more probable that some chemical change of proteolytic nature is at the basis of the condition—but why and how this change comes about is deep mystery.

I would not have you go away thinking that the next blistering eruption you see in a middle-aged or elderly person is pemphigus. Pemphigus is not a common disease, more common are dermatitis herpetiformis, erythema multiforme bullosum and bullous drug eruptions. These are bad enough but not so awful as pemphigus. Miserable they are too, but not that miserable.

It would take me too far afield to go into the fine differential diagnosis of pemphigus and pemphigoid conditions, but granted a case of pemphigus, particularly the vulgar or common form, how does one manage it so much more happily these days? The triumph lies in the miracle of corticotropin and adrenocorticosteroids. I suppose I do not have to spell out in minute detail how these agents are employed. The principles are simple. In essence what is required is administration of any one of these effective agents in amounts which control the disease process and with a care about what may happen by way of undesirable reactions from whatever sized dose is needed and about what may happen during prolonged administration. Thus to start with, it may take several

hundred milligrams of cortisone daily—or equivalents of corticotropin and other corticosteroids—to initiate control. And that dose, however huge it might be, may do its laudable work quickly and without incident, or it might be attended by critical complications like peptic ulcer with imminent or actual perforation, sepsis, diabetogenesis, severe hypertension or madness. Things like moon facies, pigmentation and mild Cushingism are minor and will pass. The disease pemphigus is, however, in itself fatal and therefore an absolute indication for therapy of any degree of heroism. The fear or inception of a complication is not as absolute a contraindication as the disease is an indication. Indeed, one has to meet and treat complications as they occur. If there is a gastric blow-out, let the surgeon sew it up; if sepsis ensues give antibiotics; if diabetes develops, give insulin; for hypertension and madness, do what one does for hypertension and madness. Just don't give up. Keep trying. Generally speaking, the crises of complications come and go—mostly they go and eventually one reaches a point of control of the disease and control of complications. Then the longer the control, the better the outlook for continued control on lesser doses and lesser danger of further complications. In the happiest cases, at long last, steroid therapy can be dispensed with without recurrence and, of course, with no more complications. In cases that must have prolonged steroid therapy for control in terms of many years (but of moderate dosage), the most serious and feared complication is osteoporosis and its consequences in the form of fractures, particularly vertebral collapse; concomitant administration of testosterone or other anabolic agents are said to be a helpful measure of prevention.

I turn now to a therapeutic triumph in a disease that is not in itself fatal, namely chronic discoid lupus erythematosus—note I say "chronic discoid," not "acute disseminated." While not killing in its chronic discoid form, this condition can be badly disfiguring. In former days one entered upon treatment of this condition with injections of bismuth intramuscularly or with locally destructive measures. In neither case did one treat with any confidence that reasonably good results would follow. With no great doctor-confidence, there was even less patient-confidence. Sometimes a more dangerous treatment with gold salts intravenously or intramuscularly was essayed. Always there was a straying of patients from one office to another until those that failed of cure—which were many—sank into a grim resignation. In addition to disfigurement, the danger of dissemination with subacute or acute systemic symptoms hung over their heads. Nowadays, oral medication with antimalarial drugs like Atabrine, Aralen or Plaquenil—all of relatively minor toxicity—clears most cases. Even cases of decades of chronic activity have yielded with degrees of improvement of disfigurement that would not be expected from the amount of scarring apparently already established.

Let us now turn to still another example of hopelessness or near hopelessness converted into relative joy. Surely I do not have to extol the antibiotics. The conquest of syphilis is known to all. No matter what happens by way of sudden fluctuations in the incidence of syphilis, syphilis is no longer the feared disease it once was. Less well known is the conquest of severe resistant cutaneous pyodermas like recurrent furunculosis, hidradenitis suppurativa and a rare dissecting cellulitis that glories under the name of folliculitis abscedens et suffodiens. We used to be near therapeutically helpless in these conditions. One used to prescribe wet dressings and ineffective topical antiseptics, practice painful surgical assault with incisions and drains and add vague supportive measures. And now, in many cases, early institution of antibiotic therapy, especially with well-chosen bacteriologically-controlled broad spectrum antibiotics, clears such conditions which would otherwise go on for months or years of misery.

Now, a last example. Cutaneous tuberculosis was never a great problem in our indigenous population, but among our immigrants and in the population of other lands, the bacillary-laden tuberculoderms like lupus vulgaris and scrofuloderma had long been of near hopeless irremediability. Now, lo and behold, isonziads cure in weeks or months what for years and centuries disfigured, maimed, and ruined lives.

These are times of relatively rapid changes in the affairs of men. If we can avoid the hazards of radioactive fall-out or blow-out from international rivalry, and if we can come to a happy circumstance of development of science purely for humanistic ends, we can expect all sorts of advances in the treatment of diseases that hitherto were utterly hopeless. Cancers, cardiopathies, metabolic disorders and the most subtle dyscrasias could be prevented or cured, given sanity in human organization.

Surgical Probe Scintillation Counters

Recent Developments

By Kenneth E. Corrigan, Ph.D.,
and Henrietta S. Hayden, Ph.D.

Royal Oak, Michigan

COUNTING probes for use in surgery have now had practical application for almost twelve years and have proved their value as an aid to the surgeon in many difficult types of cases. A brief background review may serve to illustrate some of their applications.

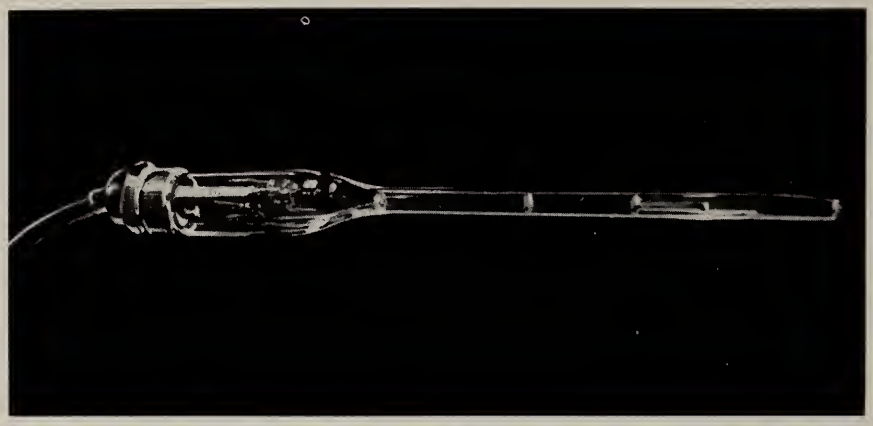


Fig. 1. Handmade surgical Geiger-Mueller probe with first-stage amplifier in handle, *circa* 1947.

The first surgical probes were small Geiger-Mueller tubes handmade in the hospital physics laboratory (Fig. 1). They were clumsy, and since a short connection was necessary, the first amplifier was in the handle. This required a multiple-strand cable, adding to the surgeon's difficulties with its weight and stiffness. An example of what could be accomplished even with these limitations is the case of an elderly woman whose surgery was performed January 22, 1947. The patient was diagnosed clinically as a thyrotoxic cardiac. Her thyroid had been removed many years before, and she had no visible or palpable recurrence. A tracer study demonstrated retrosternal recurrence, and as would be done in a modern procedure, this was located and outlined in detail (Fig. 2). At operation the tissue proved to be in four nodular pieces (Fig. 3). By using the Geiger counter probe, the surgeon (Maresh) was able to locate and remove each of these, and to be sure in the end that he had performed a complete removal.

Within the following year (1948) better Geiger-Mueller tubes became available from manufacturers. At first, these also required the close-coupled amplifier and were mounted in a glass shield similar to Figure 1. Better characteristics were developed, and it became possible to construct a much smaller, lighter, and more efficient probe by mounting one of these in a small tubular glass shield and connecting it to the counting equipment with microphone cable (Fig. 4). This probe

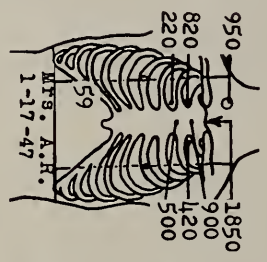


Fig. 2. Tracer map showing substernal recurrence of a toxic thyroid many years after operation.

From the Department of Medical Physics, William Beaumont Hospital, Royal Oak, Michigan.

proved to be a highly useful instrument. Figure 5 illustrates its use in a case of mediastinal tumor. The mass had been shown by tracer study to be a mediastinal thyroid. It was removed by a ster-



Fig. 3. Surgical specimens, same case as Figure 2.

num-splitting procedure (Dodrill). After removal of the main mass (March 16, 1948) the probe revealed the presence of the smaller tumor which had lain concealed under the fibrous tissue surrounding the large one.

Subsequently these counters gained a certain amount of popularity and proved their worth in finding metastases in carcinoma of the thyroid, finding small lesions in children's surgery, and for informing the surgeon, whether or not complete clearing of the field had been accomplished, in the operation of cases such as tumor recurrences in which the usual anatomic landmarks had been disorted or destroyed.

The small encapsulated tube had some rather poor characteristics, primarily the fact that it had no significant sensitivity through the end. In Figure 4 its best sensitive area is marked by the band around its midportion. Attempts to develop end-on sensitivity usually resulted in the tube's becoming microphonic due to flexibility of the anode wire. For surgical use, the instrument must be able to withstand a reasonable amount of rough handling and this factor, alone, had eliminated many good tubes developed for cyclotron probes or other laboratory use. The requirement of mechanical strength in a glass instrument demanded a fairly thick wall, and this gave the probe counter poor sensitivity for use with radioactive phosphorus P^{32}. In addition, many of the inherent characteristics of a Geiger-Mueller tube, plateau length, stability, and useful life for example, are dependent on physical dimensions.

All of these difficulties were overcome to a remarkable extent by the technical skill of Selverstone and his associates,[1] who in 1949 published a classic paper describing their work with a "needle" probe in brain surgery. The instrument was a Geiger-Mueller counter no larger in diameter than a standard brain needle, with a short active length near the tip and a stainless steel wall thin enough to admit the beta particles of P^{32}. With it they were able to determine the exact depth of a tumor below the cortex and to find the extent and depth of the lesion itself. In the hands of its originators, this instrument accomplished much beneficial work, but like the surgical probe previously described, it did not come into the wide general use that it should have reached, largely because of the inherent deficiencies of any small-volume Geiger-Mueller counter. All too oft-

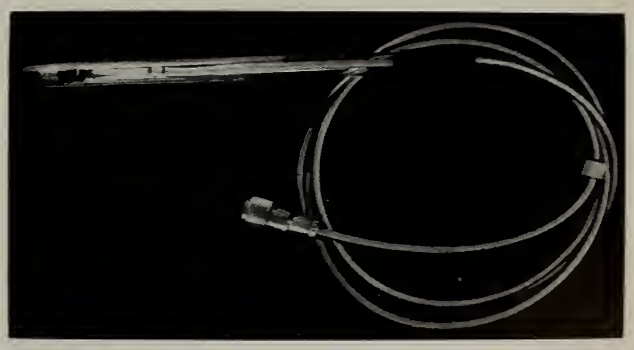


Fig. 4. Surgical probe consisting of a small Geiger-Mueller tube enclosed in pyrex tubing.

en, a good needle counter—having been tested and put away— proved, when brought out for an emergency, to have changed characteristics to a disastrous degree while in storage.

It became apparent that the help given a few surgeons and a few hundred patients must be extended to a much greater number, and to do this

certain definite technical requirements must be achieved.

The counter must, above all, be reliable. This means that it must be free of spurious counting and high background, have a good plateau and a reasonably long life. It must have, as nearly perfect as possible, a hemispheric distribution of sensitivity around the tip and a sharp cut-off behind the tip so that the surgeon can know when he is approaching a lesion, when he has reached it, and the exact distance at which he passed it. Since the counter would be used primarily for finding very small or poorly functioning lesions, it must have the highest sensitivity compatible with other necessary characteristics. All of these qualities must be built into a "usable" instrument. It must be small enough to be handled without difficulty in the surgical field and light enough not to spoil the surgeon's delicacy of touch and thereby create a new danger. The probe portion must have a perfectly smooth surface, and the handle a reliable grip. It must be suitable for complete surgical cleaning and sterilizing and be impervious to these processes.



Fig. 5. Mediastinal tumors from second case (see text). Geiger-Mueller probe aided in discovery of the second small tumor after the large one was removed.

It appeared that most of these qualities could be incorporated into a scintillation counter, but in fact this development proved to be long, laborious and exacting. This instrument had first appeared during World War II almost as soon as the first practical photomultiplier tube, the 931-A, became available, but its development into modern form came later with the commercial production of the necessary crystals. One of the first major advancements was made by Shalek,[2] although his instrument was not intended primarily for surgery.

Major advances in one field of science or technology frequently have to wait upon accomplishments in other fields. The solution of the surgical probe problem was made possible by the development of the high-gain photomultiplier tube of small diameter (Type K162A) and the transistor. With these components it became possible to construct a surgical probe with very high efficiency in an instrument of negligible weight and almost ideal shape. Being free of electron tubes for amplification, the instrument produces no heat and is temperature-independent within all ordinary temperature ranges. Once warmed up (which takes less time than the twenty minutes required for cold sterilization) the instrument has maintained constant characteristics for four hours in the operating room and thirty-two hours in the laboratory, with no indication that its behavior would change in a longer period. Further, in seven months of use and abuse its sensitivity and stability have not changed by any detectable amount.

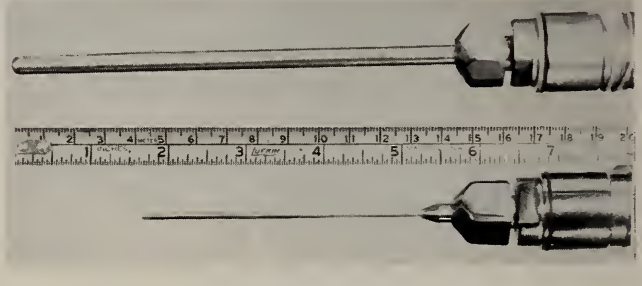


Fig. 6. Modern scintillation counter probes for use in general surgery and neurosurgery.

The modern form of the surgical probe counter is shown in Figure 6. The scintillation crystal can be either cesium iodide or sodium iodide. It is cylindrical in shape with a rounded end and can be from 1 mm. in length by 1 mm. in diameter to 5 x 5 mm., or more. The crystal is connected to the photo-multiplier tube by a plastic light pipe. This assembly of the crystal and its optical connection is housed in a thin, stainless steel, tubular shell having a perfectly smooth outer contour. This entire crystal assembly is removable, and probes

of various sizes can be interchanged very simply and easily with only reasonable care and without tools. An "O" ring inside of the square nut which connects the probing portion to the handle of the assembly makes a completely fluid-tight seal. The probes of very small diameter are quite flexible. They have sufficient rigidity for their intended purpose but are not fragile and are not damaged by a reasonable amount of accidental bending. The handle is of strong, lightweight metal. It is corrugated to give an excellent grip, and it contains the photomultipier tube and the transistor circuits. The entire instrument weighs only about 100 gm., and including as much of the cable as the surgeon's hand would ever need to support, totals 280 gm. From the practical point of view, the outstanding characteristics of these probes, in comparison to the older Geiger-Mueller tubes, is a greatly increased sensitivity and complete elimination of that serious nuisance of many

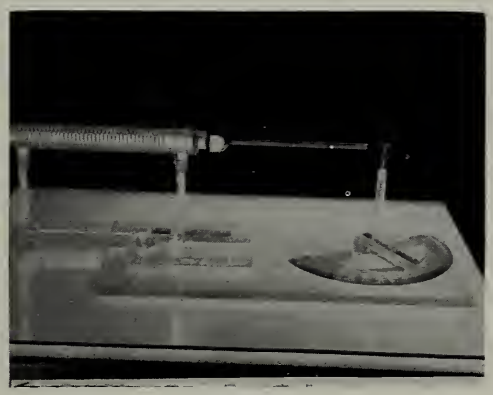


Fig. 7. Device for measuring the linear and the angular response pattern of the scintillation probe.

years' standing—the dead spot at the end of the probe. By way of actual comparison, when the various probes are set up in the apparatus illustrated by Figure 7, and the small artificial "tumor" 5 mm. in diameter and containing 1 microcurie (μc.) of I^{131} is brought into direct contact with the most sensitive portion of the probe, the best glass Geiger-Mueller probe gives 400 counts per minute per microcurie, the 2 mm. diameter scintillation probe intended for neurosurgical use gives 3200 counts per minute per microcurie, and the 5 mm. surgical probe gives 14,400 counts per minute per microcurie.

A number of experiments useful in evaluating the characteristics of the probe counter can be performed with the apparatus shown. Two of them having direct application to clinical problems are illustrated in the curves of Figs. 8 and 9. The crystal of the 5 mm. surgical probe counter is centered exactly in the apparatus, and the response is measured as a known source approaches the

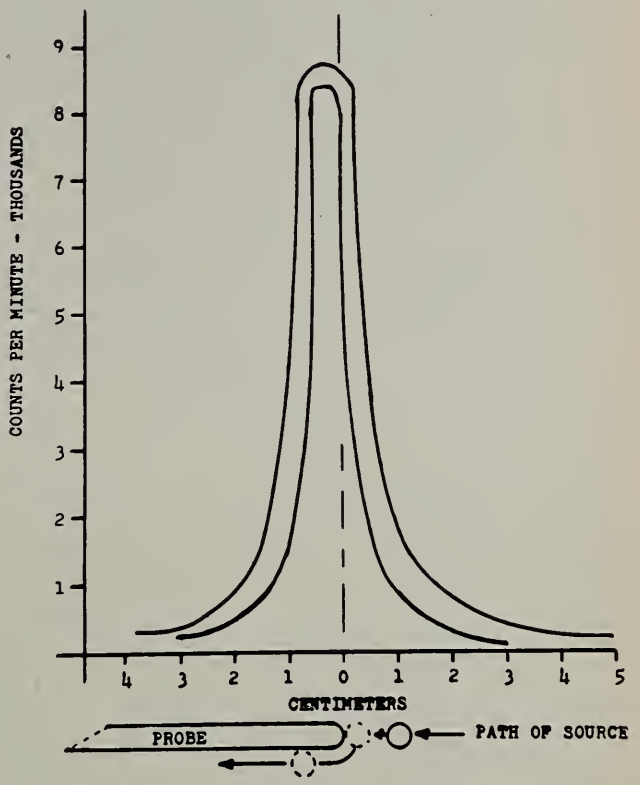


Fig. 8. Linear response curve of the 5 mm. surgical scintillation probe.

end of the probe and passes along its side, exactly duplicating the situation that would exist if the probe were inserted into a surgical opening and approached directly toward a small active nodule. It is seen that the source signals its presence at a distance of 3 cm. or more. As the approach continues, the response rises steeply with a clear peak beginning as the two come in contact. Since both the crystal and the source have a linear dimension of about 5 mm. the highest count is obtained when their long dimensions are exactly aligned. Beyond this point, a displacement of as little as 2 mm. causes a clearly discernible drop in the counting rate, which falls to 50 per cent with a displacement of 5 mm. from the maximum. As the tip of the probe passes beyond the active lesion, the activity drops away in a rapid and unmistakable manner. The entire apparatus can be immersed in water to simulate the situation when probing deep in tissue, just as the first experiment illustrates the response to be expected when ap-

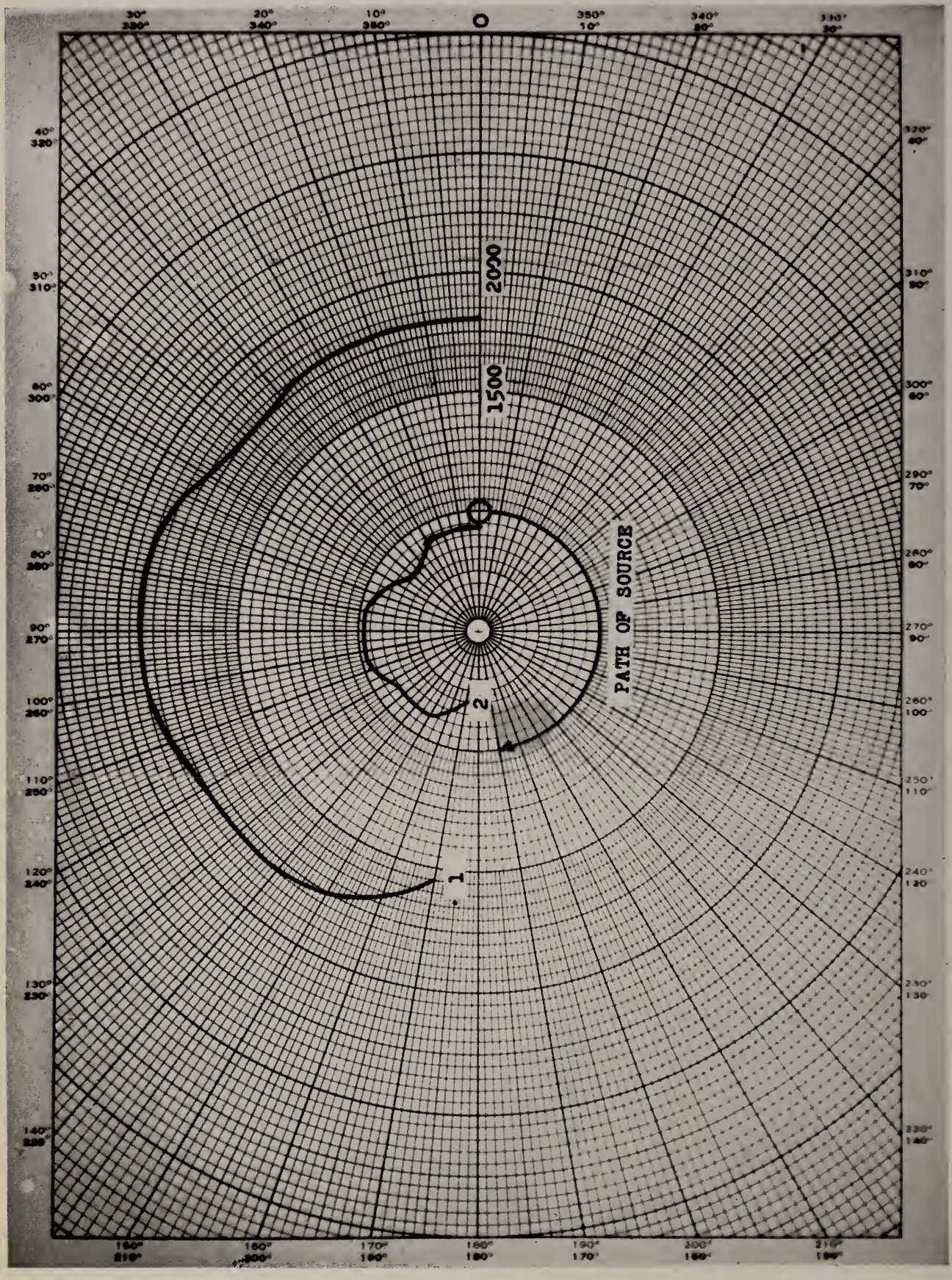


Fig. 9. Angular response of the 5 mm. probe.

proaching through an air-filled surgical opening. As is to be expected, the counting rate under water is somewhat less than that in air, but the difference is actually immaterial for practical purposes. The graphic depiction cannot quite convey all of the important facts. The trained operator can perceive and interpret subtle changes in the count rate which do not appear significant on the curve.

When a probe counter is used in an actual surgical case, there may be a residue of the preoperative tracer dose still uniformly distributed in the patient's blood stream and soft tissue. The actual increase in background to be expected will be illustrated later, but for the purposes of the phantom study the probe may be immersed in a solution containing 7 x 10^{-3} μc. of I^{131} per gm. This would be equivalent to an unabsorbed residue of 500 μc. in a 70-kg. person. When the probe is immersed in such a solution it gives a background of 120 counts per minute compared to a background of 28 counts per minute when immersed in plain water. It is evident, therefore, that even an excessive residue will have little effect on the ability of the counter to detect the presence of a small lesion.

In an actual surgical exploration, obviously it is not possible always to approach the lesion directly, since the purpose of the probe is to find the lesions not detectable by simple observation. For this reason the surgeon needs to be sure that his instrument will not pass a small lesion off to the side without reporting its presence. To obtain an exact evaluation of the characteristics of the probe for this purpose, the protractor assembly shown in the photograph of Figure 7 is used. The "lesion" in this case is prepared by heat-sealing one end of a small piece of polyethylene tubing having an inside diameter of 2.5 mm. and an outside diameter of 4 mm. A 5 mm. length of such tubing will have a capacity of approximately 24 cu. mm.; 0.5 μc. of I^{131} solution can be placed in the tubing using a capillary pipette, or to a reasonable degree of approximation with a tuberculin syringe, after which the end of the tubing is heat-sealed and mounted as shown. With optimum setting of the counter voltage, this preparation (when placed 1 cm. from the side of the crystal) will give 1800 to 2000 counts per minute. A higher counting rate can be obtained at the expense of an increased background but has no particular advantage. The distance is now kept constant, and a series of readings is taken beginning at 0° and continuing in a semi-circle until, at about 170°, the "lesion" comes in contact with the side of the probe 1 cm. behind the center of the crystal. It will be seen in curve number 1 of Figure 9 that the angular response of the probe is almost perfectly uniform until the lesion is passed. When the tip of the probe enters such a radiation field in an actual case, the surgeon has only to make very slight lateral movements of the tip to take advantage of the very steep linear response curve (Fig. 8) and learn almost instantly the direction in which the lesion lies. If the angular response experiment is performed with a smaller and more concentrated source, 0.5 x 1 mm. in dimensions, with a negligible wall thickness and containing 0.15 μc. of I^{131}, a slightly different curve (number 2 of Figure 9) is obtained. There is less absorption within the source itself, and more soft radiations reach the wall of the counter. The curve shows the slight change in response due to the corners of the crystal and to the increased filtration at angles where the direction of the radiation is less normal to the surface. Primarily, this curve is of interest in the design of the instrument, and none of these variations would be detectable in a clinical situation. The curve does, however, illustrate the ability of this probe to detect and locate the presence of an almost infinitesimal lesion.



Fig. 10. Use of the 5 mm. surgical probe for exploration in a surgical field.

Figure 10 shows the surgical scintillation probe in use. The patient in this case had a grossly enlarged thyroid with a large degenerated area in the right upper pole. Preoperative tracer study had shown no aberrant localization or extension, but the mass was large enough to have concealed a considerable amount of posterior cervical or

retrotracheal involvement. The patient had received a preoperative tracer dose of 200 μc. of I^{131}, and by inserting the scintillation probe the surgeon (Campbell-Arena) was able to assure himself that

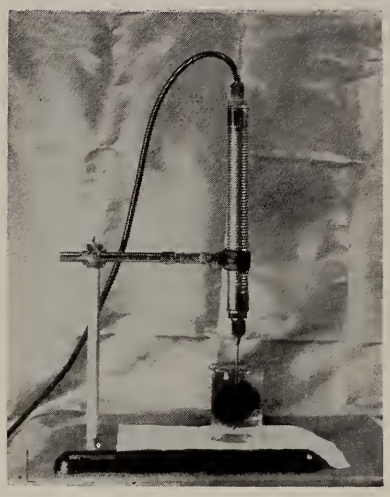


Fig. 11. Artificial brain tumor used for testing the efficiency of the 2 mm. surgical scintillation probe; also used for teaching purposes.

the field had been cleared completely. The lesion proved to be Hashimoto's struma.

All of the experiments described for the 5 mm. surgical probe apply equally well to the 2 mm. needle probe. With appropriate changes in numerical values due to the size of the crystal, the curves are, for all practical purposes, identical. The needle probe, however, is intended primarily for use in neurosurgery, and the important characteristics that it must have are a high sensitivity and reliability in detecting the surface of an active lesion, and by penetrating, to measure its extent. These characteristics are easily evaluated by the experiment illustrated in Figure 11. An artificial "brain tumor" is prepared by suspending a small inflated balloon in a beaker and filling, just to cover its top surface, with a 10 per cent gelatin solution. When the gelatin is hardened the balloon is deflated and withdrawn. The cavity is filled with a similar gelatin solution containing 1 μc. per gm. of P^{32} and a drop of ink. When the "tumor" is hardened the rest of the space in the beaker is filled with the plain gelatin solution. The probe is then mounted in a suitable laboratory clamp, and a plot is made of its response at various depths, giving the curve shown in Figure 12. The needle counter gives a precise and unmistakable indication of the moment that it touches and the moment that it leaves the artificial lesion. When the numerical values are plotted exactly as shown in Figure 12 there is always a slight skew of the curve due to the fact that on the exit side the crystal is still immersed in the tumor, while on the entrance side it is not. The difference, however, causes no error in detecting these

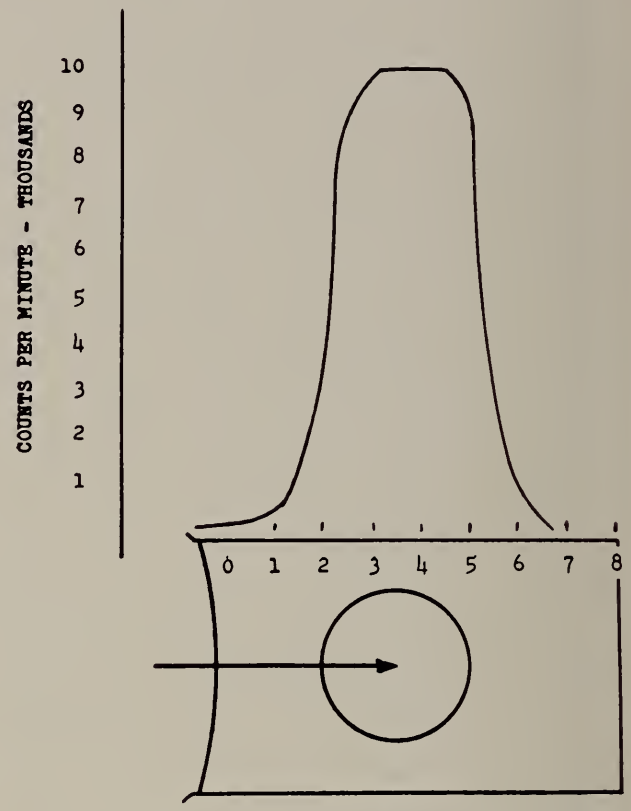


Fig. 12. Response of the 2 mm. scintillation probe on passing through the artificial brain tumor.

levels, and in actual procedure is much less than the amount of displacement encountered due to slight differences in density. The difference is eliminated entirely if readings are taken when the needle is being drawn back as well as when it is being pushed forward.

There are many variations on this experiment. From the figures given, it will be seen that the tumor would give a count ten times background if the concentration of P^{32} per gm. were 1/20 of that illustrated. The medium in which the tumor is imbedded can, of course, be made radioactive up to the limits that could be obtained in a live patient, and even beyond. A tumor with a differential of 2 to 1 is still very easily found, and this is less than the differential concentration en-

countered in any lesion in our experience. When a small lesion 1 cm. in diameter is encountered, the count inside of the tumor or phantom will be less, but the contact count on the surface will not be significantly different.

For practice in gaining the "feel" of the instrument, it is advantageous to make the "tumor" of greater and also of less hardness than the surrounding medium.

In an actual case the patient had had both a RIHSA and a P^{32} tracer study prior to operation. The RIHSA had given a very high, diffuse count over the entire brain with no specific localization. The P^{32} had located a poorly defined lesion in the left superior temporal region. At operation the entire brain was edematous and no lesion appeared on the surface. The needle probe was inserted in the area indicated by the external tracer study. The superficial layers of the brain gave a count of 200 to 240 counts per minute, but at a depth of 2 cm. there was a sharply demarcated zone giving counts of 800 to 875 counts per minute through the next 3.5 to 4 cm. By probing at various points the surgeon (Latimer-Haddad) was able to outline the major portion of the tumor which, however, proved to be an inoperable astrocytoma. Figure 13 illustrates the technical procedure of using the 2 mm. brain probe at operation.

Throughout this discussion we have mentioned or implied that the counters were being used under optimum operating conditions. Some detailed considerations of the physical aspects of the characteristics of these counters is necessary. Ideally, all counters should have a "plateau"; that is, a range of operating voltage over which there is no significant change in response to a constant radiation source. Fig. 14 shows the "plateau curve" for the 2 mm. needle probe in its natural working circumstances immersed in a uniform medium containing P^{32}. The background determinations were made with the counter immersed in plain water. Referring back to Figure 12, it will be noted that the depth of immersion makes no difference be-



Fig. 13. Two mm. scintillation probe in use for exploring cerebral neoplasm.

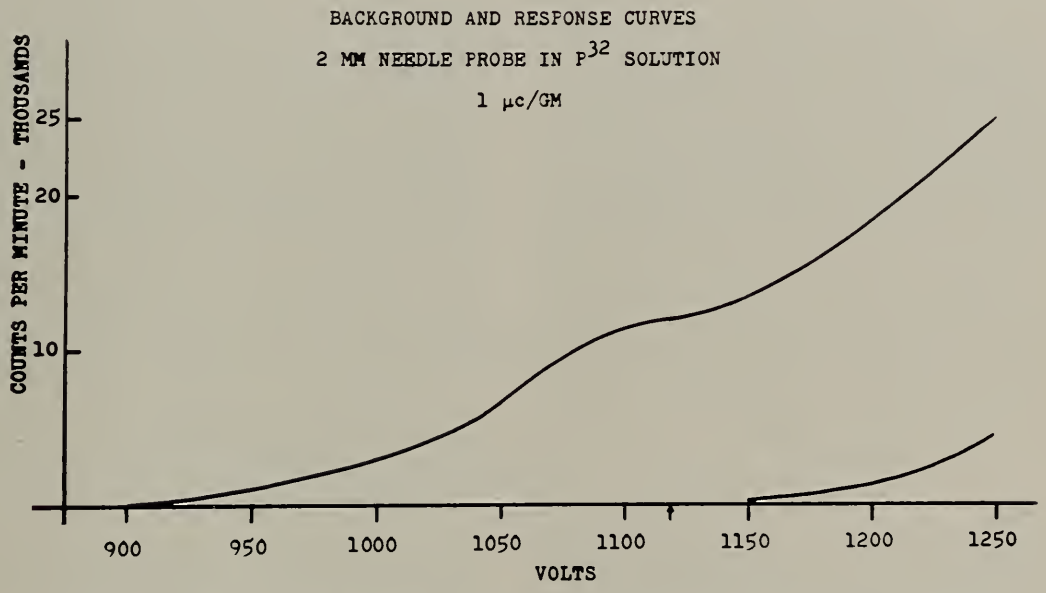


Fig. 14. Plateau of the 2 mm. scintillation probe. Scintillation probes with transistor amplifiers are not limited to plateau operation like the older Geiger-Mueller counters. The instrument will remain stable almost anywhere on the voltage curve and can be adjusted to suit the needs of the case and the preference of the surgeon.

yond the first 5 mm. below the surface. The "plateau curve" of Figure 14 shows an optimum operating potential at 1118 volts. The change in count rate is negligible for a 10-volt change either side of this point, and if the usual 10 per cent allowance is made, the plateau length extends to a total of 40 volts. This is at least four times as good as our best experience with a needle Geiger-Mueller probe of comparable size, and twice as good as the usual plateau obtained with the large (13 mm.) surgical Geiger-Mueller probe. The background for the needle scintillation probe is entirely negligible below a voltage of 1110 volts, at which it becomes about 90 counts per minute. From this point it increases slowly up to 1150 volts, from which point it increases steeply becoming 4500 counts per minute at 1250 volts. One of the greatest advantages of the scintillation probe is the fact that it is not necessary to run it on its plateau. The sensitive element of the counter is not damaged by a moderate amount of excess voltage and does not give any significant number of spurious counts until a normal voltage range is grossly exceeded. This allows the surgeon a considerable amount of room for the exercise of his personal tastes. If he prefers to hear a slight constant background as reassurance that the equipment is working constantly, there is no reason why the voltage cannot be turned up to a suitable level. The transistor circuits are free of many of the sources of error present in the older thermionic circuits, and no significant amount of drift or change in counting characteristics will be encountered over a long period of time.

The equipment to which the probe is connected is, of course, very important. Ideally, it must be a count rate meter with the best possible characteristics of both input requirements and voltage stabilization. It must have a good aural monitoring system. The operating characteristics will be found to be slightly different with these probes as compared to the conventional scintillation probes with large crystals. The crystal of a surgical probe counter is too small to absorb more than a fraction of the energy when struck by an energetic ionizing particle. The relative absorption, of course, is better for beta particles than for gamma quanta, and particularly is this true with the cesium iodide crystals used in these probes. In general, however, and particularly when used with an energetic gamma emitter such as I^{131}, many relatively small scintillations representing only a part of the quantum energy will be produced. Since these small flashes must be amplified to some minimum threshold, usually about ¼ volt, to be recorded by the count rate meter, it follows that the number that will eventually be recorded is a function of the over-all amplification factor of the probe, which in turn is a function of the applied voltage. Referring again to Figure 14, we see that above 1150 volts the total counting rate increases much faster than the background count; even at the end of the curve the increase is three times background. This is due to the fact that with the increasing voltage, more and more of the small scintillations are picked up and amplified to threshold. In many count rate meters, however, particularly older models, the actual threshold value of the instrument varies with the scale being used, and consequently, particularly when working near either end of the voltage curve, the number of counts per minute that will be indicated by the instrument will vary depending on which scale is used. This variation can be confusing if it is not recognized in advance, although it has no significance with regard to either the accuracy of calibration or the ability of the equipment to perform a precision localization. The most practical technique developed so far is simply to set the instrument on its optimum operating voltage which has previously been determined for the scale most likely to be employed. A quick determination in the actual surgical field will then show whether unusual counting rates are to be expected. If so, the scale can be changed and a slight readjustment made of the operating voltage. Primarily, the purpose of the instrument is the detection of small and weak localizations for which it is set in advance. Very high counting rates are seldom important. The curves shown in Figure 14 were made with a full-scale factor of 30,000 counts per minute. If the 100,000 scale had been used, an increase of about 10 volts in the operating potential would have been required to reproduce the same curve.

The aural monitor portion of the count rate meter is of major importance. Both scientific factors and the personal taste of the surgeon must be considered. The old-fashioned click system on a loudspeaker gives a rather harsh sound but is generally very easy to use. The change in sound with change in counting rate is instantaneous, and with experience very small changes in count rate become easily discernible. For many years there

have been jokes about making the count rate meter play various kinds of music that would signify a difference in counting rate, and recently this has in part been accomplished. Some of the most modern instruments give a tone frequency which rises in pitch with the counting rate. Some of these machines, however, have two disadvantages. In some instruments the tonal response is dependent on the time-constant setting of the instrument. This is very undesirable, since the change in tone may come too late to tell the position of the tip of the probe accurately. In addition, many people have difficulty in distinguishing changes in tonal quality. A few who were trained with the click system have been unable to use the tone-change system, but others have found it superior and easier to use. In any case, the type of sound system is optional and should be suited to the personal preference of the operator, but it is important to use a modern count rate meter with the best possible electronic characteristics.

As a final word, it must be noted that all counters are slightly different regardless of size or type under consideration. The exact numerical values for optimum operating potential and plateau length reported here, for example, will not apply to another combination of probe and count rate meter. The differences will be small, but the plateau must be determined for each instrument. All of the important characteristics—the shape of the voltage curve, the general position of the plateau, the relative response on penetrating a tumor, spatial sensitivity, et cetera—should be identical for all probes of the same size and quality when connected to suitable electronic systems.

Acknowledgments

We are indebted to the following physicians for their generous co-operation and the use of their material: Dr. Everett R. Maresh, Dr. F. Dewey Dodrill, Drs. Kenneth N. Campbell and Joseph A. Arena, Jr., and Drs. Frederick R. Latimer and Benjamin F. Haddad. We have also received much assistance and encouragement from Dr. Robert Byberg.

Also we wish to express our appreciation to Drs. Herman J. Linn and Malcolm C. Young of the Department of Pathology, William Beaumont Hospital.

References

1. Selverstone, B.; Solomon, A. K., and Sweet, W. H.: Location of brain tumors by means of radioactive phosphorus. J.A.M.A., 140:277 (May 21) 1949.
2. Fletcher, G. H., Shalek, R. J., et al.: Calculations and direct measurements in radium therapy of carcinoma of the cervix. The Radiological Society of North America: Presentation and Scientific Exhibit, 1952.

DERMATOSES AND MALIGNANT INTERNAL TUMORS

(Continued from Page 575)

20. Kierland, R. R.; Sauer, W. G., and Dearing, W. H.: The cutaneous manifestations of the functioning carcinoid. A.M.A. Arch. Dermat., 77:86-90 (Jan.) 1958.
21. Macklin, M. T.: Personal communication.
22. Oldfield, M. C.: The association of familial polyposis of the colon with multiple sebaceous cysts. Brit. J. Surg., 41:534, 1953-54.
23. Paracchi, P., and Pricolo, V.: Contributo clinico sperimentale allo studio dell'erpes zoster nel deco rso del morbo di Hodgkin e di carcinomi. Tumori, Anno XXIX, Fasc. III e IV, 171-187, 1943.
24. Pendergrass, E. P., and Kirsch, D.: On the occurrence of herpes zoster in carcinoma of the breast. Am. J. M. Sc., 217:674-680, 1949.
25. Ronchese, F., and Gates, D. C.: Ichthyosiform atrophy of the skin in Hodgkin's disease. New England J. Med., 255:287-289 (Aug. 9) 1956.
26. Sauer, W. G.; Dearing, W. H., and Flock, E. V.: Diagnosis and clinical management of functioning carcinoids. J.A.M.A., 168: No. 2, 139-147 (Sept. 13) 1958.
27. Schuermann, H.: Zur Kenntnis der Dermatomyositis. Arch. Dermat. u. Syph., 190:284, 1950.
28. Schuermann, H.: Maligne Tumoren bei Dermatomyositis und progressiver Sklerodermie. Arch. Dermat. u. Syph., 192:575-582, 1951 und Nachtrag zu obiger Arbeit, ibidem 193, 628, 1952.
29. Tobias, N.: Dermatitis herpetiformis associated with visceral malignancy. Urol. and Cut. Rev., 55: 352 (June) 1951.
30. Welch, J. L., and Epstein, E.: Acquired ichthyosis in Hodgkin's disease. J.A.M.A., 148:1221-1223 (Apr. 5) 1952.
31. Zegarelli, E. V.; Kesten, B. M., and Kutscher, A. H.: Melanin spots of the oral mucosa and skin associated with polyps; report of a case of peculiar pigmentation of the lips and mouth. Oral Surg., 7:972-8 (Sept.) 1954.

35 East 84th Street
New York 28, New York

Can You Answer Your Patients' Questions About Radiation?

By Thomas L. Shipman, M.D.

Los Alamos, New Mexico

SOME of you may have heard the story of the elderly lady in New York who refused to have some diagnostic x-rays taken for fear that the procedure would injure her grandchildren who lived in the Middle West. The story itself is possibly true, probably apocryphal. Sad to say, it does reflect rather truly the confusion and misinformation which is clouding the public mind about radiation.

Sad to say, also, the medical profession is confused too. The public, your patients, if you will, have doubts and questions about the effects of radiation on themselves and their descendants yet unborn. The public has a lot of real worries about its health, and the doctor is the person to whom one naturally turns for advice. I wish it could be said that the medical profession had all the answers ready but, judging from questions other physicians have asked me, I fear this is not the case.

Up to fifteen years ago, nobody worried very much about radiation, nobody, that is, except a few radiologists and biophysicists who were well aware of the injurious properties of ionizing radiation. Why should anyone fear anything that goes in one side of you and comes out the other without causing any harm? No one paid much attention to the fact that some of those x-rays which entered the one side did *not* come out the other. Individual cells in the skin, in the bone marrow, in internal organs knew it, however, and some of them were damaged so that they could not reproduce normally, while others died.

The first published report of skin cancer caused by x-rays appeared in 1901, only six years after Roentgen's discovery of the x-ray. During the next forty years the picture came into sharper and sharper focus. We tend to think that all of our knowledge about the biologic effects of radiation is new, but the modern researcher finds, sometimes to his chagrin, that some venerable worthy made the same observation twenty or thirty years before.

As early as 1928, it was possible to give numerical values to what were regarded as permissible doses of radiation, and our ideas about the degree of danger from radiation have changed very little since then. The establishment of these numerical values was undoubtedly the result of the now-famous cases of radium poisoning found among the painters of luminous watch dials. These cases showed that radiation could cause injury to innocent victims. And just about the same time, perfectly reputable physicians were going through a fad of injecting radium salts into the veins of patients with the hope of ameliorating rheumatic pains or restoring brightness to the eyes of a debutante. After all, it was only a little bit of radium, only a few micrograms!

The medical profession has never had a very good record for taking care of its own health. For the first two or two-and-one-half decades of this century it was the physicians themselves who were the potential victims of radiation injury, the physicians and a small handful of experimental physicists, plus a few unfortunate patients who became unexpected casualties of this new and fascinating diagnostic and therapeutic tool.

The public—your patients—and the press alike were still complacent, and so was the medical profession, in general. I well remember one of those early pioneers of x-ray, wearing his fingerless hands as a badge of honor. Doctors by the thousands were buying x-ray equipment, learning how to operate it from the salesman who sold it to them. At the same time, something else was happening. A new science, nuclear physics, was being born. Scientists in Italy, Germany, France, England, and the United States were co-parents, producing the cyclotron, other particle accelerators, and finally the first controlled chain reaction in that strange device under the football stands in Chicago.

Dr. Shipman is Health Division Leader, Los Alamos Scientific Laboratory, Los Alamos, New Mexico.

Presented at the annual meeting of the Michigan State Medical Society, Detroit, October 2, 1958.

Unfortunately, this science had to go underground at this point, otherwise its new look, when it later reappeared, would not have seemed so different. By 1945 when the first mushroom cloud rose over the New Mexico desert, science had advanced by giant steps but only a chosen few had been aware of it.

At first glance it seems hard to believe that literally thousands of men had been working with these new and strange and dangerous forces for five years with but one serious casualty, a young physicist who paid for one human error with his life. (A year later there was a second and very similar fatality.) And yet it wasn't so strange after all when we remember that the dangers were already known, that permissible doses of radiation had already been established, that methods of control were well understood.

The names of those responsible for this amazing record are not on the tip of every tongue nor are they familiar to every ear, but for the sake of the record let me mention just a few of them, the modern pioneers in the fields of health physics and radiation medicine—Stafford Warren, Joe Hamilton, Giaocchino Failla, Lauriston Taylor, Simeon Cantril, Jim Sterner, Louis Hempelmann, Shields Warren, Herb Parker, Karl Morgan, Hymer Friedell, Bob Stone, Bob Newell, Robley Evans, Austin Brues, Dolf Kammer. These men and many others were the ones who had the responsibility for establishing the rules and regulations under which the Manhattan District, later the Atomic Energy Commission, was able to operate with safety. These were the men who insisted that the job could and must be done safely, even though the cost in time and dollars was somewhat appalling.

There is an important significance to all this—here was the birth of the Age of Radiation. There have been other "Ages" before. The age of fire, of the wheel, of steam, petroleum, electricity, the automobile, the aeroplane. These others just kind of grew up leaving a dismal number of casualties behind. Radiation, in our modern connotation with the involvement of atomic energy, came into the world to be greeted by a host of pediatricians ready to write formulas and set down rules of management such as had never been seen before. And they were wise, those men! Their insistence on standards of safety has permitted us to travel this far with a record almost spotless. It would have been spotless had man himself been completely infallible.

The initial reaction to the atomic bomb, aside from horror at its devastating effect, was one of bewilderment. The man in the street—the patient—and the physician alike were almost unable to comprehend what it was all about. Not only a new science but a new language filled with strange words was thrust upon us. In general, however, there was the reassuring feeling that the danger of an atomic bomb was only to the person on the receiving end, that, horrible as it was, this danger was quite well localized.

In the spring of 1954, there was what must be classed as a fortunate accident, not fortunate for the victims, even though they were not seriously injured, but fortunate for the world. It was impressed upon us all that radioactive material in the form of fallout could, under proper circumstances, produce serious results some distance away from a bomb detonation. There followed the realization that practically the entire surface of the earth was contaminated to a greater or lesser extent by fission products and bomb debris, which had drifted down from the stratospheric reservoir and which was continuing to drift down. Regardless of whether or not this was a dangerous situation, it now became apparent that the entire world's population was receiving willy-nilly some increment of man-made radiation.

From this point on—confusion and misunderstanding mounted rapidly, and, to make matters worse, biology and political science became woefully tangled up with each other. Disarmament and the avoidance of a nuclear war were really quite different from the incidence of leukemia or genetic mutations, but the latter points were shamelessly used to make arguments for the former more impressive.

Unfortunately, there was no clear, strong voice to speak out with authority in an understandable style. The Atomic Energy Commission certainly gave the impression of hewing to a policy of saying no more than it absolutely had to say. One was reminded of the story of the elderly mountaineer who failed to show up at his home for several days. At first this was not regarded as unusual, but after five days had passed it was decided that a search had better be made. It was the man's wife who found him standing in some underbrush not far from their cabin. They eyed each other with somewhat pained expressions. After a moment she said, "It's time for supper." "Yup," he answered as she turned to go. After a few steps she turned to see that he had not moved. "Ain't you

coming?" she asked. "Nope," he answered. "Well, why not?" she queried. "Because I'm standin' in a bear trap!"

The Atomic Energy Commission has undoubtedly and by policy been somewhat inarticulate. Furthermore, when one of its representatives has made a factual and perfectly sincere statement about—let us say—fallout, there has been a tendency to disbelieve him or to assume that pertinent information is being withheld. After all, does one trust the wolf to watch the sheep?

In 1956, two obviously reputable and equally unbiased organizations expressed themselves firmly and clearly on the subject of radiation and its effects on humans, both of them taking note of the fact that man-made radiation was now reaching all mankind. The International Commission on Radiological Protection revised its recommendations for permissible exposures, suggesting that exposures to large population groups should be only one-tenth those permitted for small industrial groups. At about the same time, the National Academy of Sciences quite independently published an excellent report with very similar conclusions.

Both of these bodies also noted that the contribution to country-wide or world-wide radiation exposure from diagnostic and therapeutic exposures was now a problem to be reckoned with. Since then, there is probably not a single one of you who has not received a few or a lot of questions from patients, sometimes timidly, sometimes boldly, about the dangers of radiation. And who should be a more dependable source of accurate information than the family doctor?

Perhaps the title which I selected for this paper, "Can You Answer Your Patients' Questions About Radiation?" was wrong; perhaps it was a cart without any horse. Might it be that the title should be: "Can You Answer Your Own Questions About Radiation?" Last year I went back to the twenty-fifth reunion of my class in medical school, naturally a very superior group. But from the questions put to me during those two days it became painfully obvious that many—perhaps most—of them were ignorant of the subject, just as ignorant, if the truth must be told, as I was ten years before.

Radiation and its effects and its powers are going to be increasingly important factors in the next few generations. I don't think it is up to the physicist to explain the health aspects of radiation to the public; it is the job of the physician. How, then, can the ordinary doctor painlessly acquire enough fundamental knowledge so that he can, in turn, impart it to his patients, calm their needless apprehensions, and at the same time explain the real hazards of radiation in true perspective?

First of all, I suggest a careful reading of a little pamphlet recently sent to all practicing physicians and dentists by the American College of Radiology and the American Dental Association. It is entitled "A Practical Manual on the Medical and Dental Use of X-Rays with Control of Radiation Hazards." If you threw yours away thinking it was an advertisement, additional copies can be obtained for 25 cents from the American College of Radiology, 10 North Wacker Street, Chicago 6, Illinois. Then you can graduate to the National Academy of Sciences booklet, "The Biological Effects of Radiation," which I think can still be obtained free from the National Academy of Sciences, National Research Council, Washington, D. C. Perhaps the best source of information on the entire subject is the "Report of the United Nations Scientific Committee on the Effects of Atomic Energy" ($2.50, International Documents Service, Columbia University Press, 2960 Broadway, New York 27). This is technical in spots but not too difficult for the comprehension of the average physician.

Now perhaps an evening of discussion with a current medical student might be in order. He will know a lot about the subject but not enough to overpower you. It may be that the science teacher in your local high school has recently taken a summer course in radiobiology sponsored by the AEC and the National Science Foundation. He will be far easier to understand than the professor of physics in the local university. A near-by medical school should easily provide a speaker on the subject for your county medical society's meeting.

This is not a matter of becoming fully familiar with nuclear physics: it simply requires bringing the knowledge we already have up to date and understanding matters in their proper perspective. It means brushing up on an old glossary and adding a few new words and units to it.

After all, what is the radiation dose delivered in a standard chest examination or in a retrograde pyelogram, and what is the significance of it? What is all this business about fallout and Strontium-90? What is the natural background radiation, and what does it mean if that is increased for a day or two by a factor of fifty or a hundred?

(Continued on Page 613)

Cytologic Screening of Healthy Women in the Smaller Community

By J. H. Ahronheim, M.D.

Jackson, Michigan

MASS cytologic screening of women for detection of uterine cancer and inclusion of the vaginal smear in periodic health examinations have been advocated by leading gynecologists almost since the inception of the science of exfoliative cytology. Such procedures offer relatively few problems in most large medical centers where sufficient well trained personnel is usually available for the screening as well as the final reading of the smears. While attempts are being made through the training of cytotechnicians to carry this procedure into communities other than medical centers, universally available, large-scale cytologic service is still a matter of the distant future. At the present time, the practice of exfoliative cytology in the medium-sized community is confined to relatively few smears. The reading of the smears becomes the burden of the local pathologists, who, as a rule, are the only available persons trained in this field.

For some time, interested members of the medical profession in Jackson, Michigan, have explored the possibility of offering to the community a more extended cytologic service than was available in the past. In the summer of 1958, it was decided to undertake a cytologic screening project of 1000 women in this county of approximately 110,000 population. This project was carried out through the co-operation of the Michigan Department of Health, the Jackson County Cancer Society, the Jackson City Health Department and the Jackson County Medical Society. As no cytotechnicians were available the smears were to be read by the two local pathologists.

Physical Aspects

Inasmuch as such a project would place a great burden on the busy schedule of the pathologists and their laboratories, it was decided to carry this project out under the following provisions:

1. Only one smear will be accepted per case, this smear including vaginal secretion and, if desired by the physician, cervical aspiration.
2. The staining procedure would be carried out by the local City Health Department. This department would also serve as a central receiving point and take care of files and the tabulation of results.
3. The local chapter of the Cancer Society would make miscellaneous services available such as publicity and messenger service.

The necessary publicity was carried out well ahead of the scheduled start of the project through the efforts of the Cancer Society and with the co-operation of the local newspaper, the *Jackson Citizen Patriot,* and the local radio stations, WIBM and WKHM. The members of the medical profession were informed of the provisions laid down by the committee in charge of the project. Every physician who was expected to participate in this project was supplied with a kit containing the necessary equipment to collect, fix and mail three different specimens. Smears taken by osteopathic physicians were accepted on an equal basis. It was decided to limit the tests to women thirty-five years of age and older. The project was started on May 26, 1958, and termination was provisionally scheduled for June 30. Every woman desirous of having such test taken was registered by the Cancer Society and given a number, these numbers serving as guide to the progress of the project and termination. The smears taken in the doctors' offices were submitted to the City Health Department as a central receiving point, for cataloguing and staining. In this particular situation, it seemed feasible to submit the stained smears to the two pathologists divided into even and odd numbers. Daily, a volunteer worker of the Jackson County Cancer Society acted as a messenger and distributed the stained smears to the pathologists. The reports were rendered by the pathologists to the office of the City Health Officer.

Dr. Ahronheim is Pathologist, W. A. Foote Memorial Hospital, Jackson, Michigan.

Distribution of Responsibilities

The responsibilities of making this a successful project were divided in the following manner:

1. *Jackson County Medical Society.*—(a) To encourage their members to take vaginal smears in their offices on all women submitting to or requesting such test, (b) To volunteer their services at an especially-arranged clinic to take smears on women who had no physician, and (c) To provide trained cytologists.

2. *Jackson County Cancer Society.*—(a) To take charge of publicity to the public as well as notification of the participating physicians, (b) To provide all participating physicians with a cytology kit containing equipment for the first three tests, (c) To register all women intending to take the test, and (d) To provide messenger service between City Health Department and the laboratories of the pathologists.

3. *Jackson City Health Department.*—(a) To plan, organize and administer the project, (b) To provide physical facilities such as office space, files, and laboratory, and (c) To stain the smears.

4. *Michigan Department of Health.*—(a) To provide consultation services in the administration and evaluation of the project, and (b) To provide the funds for the re-embursement of the cytologists.

Results of Project

Anticipating that some of the registrants would fail to report to their doctors, 1,100 women were accepted by the Cancer Society. Smears from 1,020 women were obtained over a period of seven weeks. Of these, twelve smears were reported as either suspicious or positive. Four of these cases were found to be malignant on biopsy, representing approximately 0.4 per cent. The four positive cases are summarized briefly.

Report of Cases

Case 1.—This woman, aged forty-three, had been asymptomatic except for some irregularity of her menses during the past year. She went to her doctor during the cancer drive with the request to have a vaginal smear taken. This smear was reported as positive. A biopsy was taken on July 8, 1958 from two small places in the cervix which failed to take the Schiller test; examination of the specimen showed a fully developed noninvasive carcinoma. On July 22, 1958 total hysterectomy was performed. Noninvasive carcinoma with involvement of some of the cervical glands was found in multiple sections taken from the cervix. The patient made an uneventful recovery.

Case 2.—This fifty-two-year-old woman was asymptomatic when she came to her doctor for routine physical examination. A vaginal smear taken at that time was reported as suspicious. The cervix was found to be smooth on examination. A wide cold conization was performed on June 23, 1958. Histologic examination revealed a very early and localized noninvasive carcinoma in one of six large blocks prepared from the specimen. Total hysterectomy was done on June 26, 1958. Histologic examination of the specimen failed to show remaining neoplasm.

Case 3.—This woman, aged fifty-nine, had no symptoms referable to the genital tract. In the course of an examination, two small lesions were seen in the cervix. A smear taken at that time was reported as highly suspicious of neoplasm. A biopsy taken on June 20, 1958 revealed a noninvasive carcinoma. She received 6,000 mg. hours of radium applied in two different settings. A total hysterectomy and bilateral salpingo-oöphorectomy was performed on September 3, 1958. No remaining carcinoma was found in the cervix. Adenomyosis of the uterine wall and a large Brenner's tumor of one of the ovaries were found incidentally. The recovery was uneventful.

Case 4.—This fifty-two-year-old woman had a yellow, occasionally bloody vaginal discharge for about three months. A cytologic smear was reported as positive. A cervical biopsy taken on June 18, 1958 revealed Grade II squamous cell carcinoma. Inspection of the cervix showed a large fungating mass in the anterior lip, about 1½ in. in diameter. A biopsy taken from this mass revealed a Grade II squamous cell carcinoma. She received a total dose of 6,300 mg. hours of radium followed by total hysterectomy three months later. No remaining neoplasm was found in the uterine specimen. The patient was asymptomatic when last seen by her doctor two months postoperatively.

Conclusions

While it is fully realized that this project does not satisfy the demand for routine cytologic service, it was done primarily with the purpose in mind of collecting information as to how to utilize the available facilities in extending such service. The results of the project permitted the following conclusions and suggestions:

1. Mass cytologic screening of healthy women on a limited basis may be accomplished in the smaller community through the co-operation of medical and interested lay organizations.

2. Effective publicity must precede such project. This publicity must be directed to physicians to

stimulate their interest and co-operation, and to the women of the community to impress them with the benefit which they may derive from such test.

3. Every woman registering for the project must receive thorough instructions with particular emphasis on the avoidance of douching before reporting to her physician.

4. In order to arrive at proper figures for statistical use, only residents of a well-defined area (county or city) should be accepted; visitors, transients and residents of neighboring areas should be excluded.

5. An age limit of thirty-five years for the participating women, as agreed upon in this project, is too high. The limit, if any, should not be higher than thirty years, possibly even as low as twenty-five years.

6. The prepared smears should be taken to one or, preferably, several easily accessible collecting points, such as the office of the local Cancer Society, the hospital laboratories or the local health department. Drop boxes outside or inside public buildings, such as post office, city hall or railroad depot, may prove to be feasible in some communities.

7. Complete agreement must exist among the participating organizations as to the mechanics of the procedure, beginning with a woman's registration and ending with the final reporting and recording of the test. Instructions given to the doctors' office through the nurses and secretaries were found helpful in avoiding initial confusion.

8. Large-scale cytologic screening would require the services of a trained cytotechnician.

Summary

A cytologic screening project of 1,000, apparently healthy women in a relatively small community is reported. Three cases of noninvasive and one of invasive carcinoma were detected. It is believed that the results of this project represent convincing evidence to the members of the medical profession that in communities other than those having medical centers, screening projects of healthy women on a limited scale are feasible and beneficial.

205 North East Avenue

CAN YOU ANSWER YOUR PATIENTS' QUESTIONS ABOUT RADIATION?

(Continued from Page 610)

How about leukemia and genetic mutations? What is the difference between the alpha radiation from radium and the beta radiation from strontium? If radium is an alpha emitter, how does it also produce gamma rays? And what is the difference between a gamma ray and a neutron? Is a rem bigger than a roentgen, and is a rad more dangerous than either?

These questions are on the lips of our patients and they deserve proper answers. Shortly a power reactor will go into operation not far from here and then the questions will multiply. Even more important than satisfying your patients, however, is your own peace of mind. We are going to live with radiation for a long time to come, and unless we as physicians are convinced that it is a controllable force we simply delay the orderly march of progress toward a brighter future when radiation will work exclusively for the betterment of mankind.

Advances in the Treatment of Leukemia

By F. H. Bethell, M.D.,
M. C. Meyers, M.D.,
and R. C. Bishop, M.D.
Ann Arbor, Michigan

H. H. Spencer, M.D.
Grand Rapids, Michigan

BETWEEN the years 1930 and 1954, the reported annual death rate from leukemia in the United States rose from 11 to 65 per million living persons.[3,8] Although some of the difference is undoubtedly due to more complete reporting of cases, the evidence seems to be incontrovertible that the incidence of leukemia is increasing in an almost explosive manner. Leukemia is the commonest form of malignancy in childhood and, when the entire life-span is considered, one of the most frequently occurring malignant neoplasms in adults. The disease is, therefore, a major health problem and one of rapidly growing importance.

The etiology of leukemia is unknown. This group of disorders may well have multiple causes, some proximate (perhaps viral in nature) and others mediate (such as ionizing radiation). Therefore, treatment is empirical and its general aim is the suppression of leukemic cell growth and the restoration of normal hemopoiesis. Success of therapy depends upon the degree to which a differential suppressive effect may be exerted on leukemic as compared to normal hemic tissue and the capacity for re-establishment of regulated, orderly and functional blood cell formation.

Classification of cases of leukemia is based on the leukemic cell type, on the activity of the process and, for convenience in diagnosis, on numerical differences affecting the circulating leukemic cells.[9] The cell types commonly involved are the lymphocytic, granulocytic and monocytic. Activity of the process, which is manifested by both altered growth rate and impaired differentiation, is described as acute, subacute or chronic. Numerical values are characterized as leukemic in cases in which the leukocyte count is above 15,000 per cu. mm. and the type cells are present in the blood in sufficient number to permit the diagnosis of the type of leukemia. Subleukemic leukemias are defined as those leukemias in which the leukocyte count in the blood is below 15,000 per cu. mm., and often much below normal, yet the type cells are present in the blood in sufficient number to suggest the diagnosis. Aleukemic leukemias are defined as those cases in which the leukocyte count is below 15,000, often frankly leukopenic, but the type cells are either not found or are so few that it is impossible to make the diagnosis from examination of the blood alone and tissue biopsy or marrow aspiration is required.

Accurate diagnostic classification of leukemia is a prerequisite for selection of appropriate therapy. Furthermore, continued close observation is important in order to adjust dosage to varying individual situations and to change the type of therapy as soon as the indications for so doing arise.

Aside from certain rarely used or obsolete agents and frankly experimental methods, the measures available for the specific (as contrasted with supportive) treatment of leukemia fall into four categories. These are: (1) ionizing radiation, (2) polyfunctional alkylating agents, (3) antimetabolites, (4) corticosteroids and corticotropin. The use of the two former is almost wholly restricted to the chronic leukemias, whereas the latter two classes of compounds are employed predominantly in the management of acute and subacute leukemias, except in special circumstances when they may be useful in cases of chronic leukemia.

Chronic Leukemia

Between 1927 and 1958 inclusive, there were seen by staff members of the Simpson Memorial Institute, approximately 790 patients with chronic leukemia. The breakdown of this case series according to diagnosis, sex, and age is shown in

From The Thomas Henry Simpson Memorial Institute for Medical Research, The University of Michigan, Ann Arbor, Michigan.

TABLE I. CHRONIC FORMS OF LEUKEMIA (1927-1958)

Type of Chronic Leukemia	No. of Cases (Approximate)	Males Percentage	Median Age Years
Lymphocytic	340	65	64
Granulocytic	400	53	45
Monocytic	50	83	47
Total	790	—	—

Table I. An analysis of much of this clinical material has been previously reported.[1]

The Decision to Institute or Withhold Treatment

A diagnosis of leukemia of one of the chronic forms is not in itself a mandate for institution of therapy. It is not uncommon to discover the existence of leukemia, usually of the lymphocytic type, during the course of examination for an unrelated condition. In the absence of symptoms or signs of progression of the disease, time is not lost by withholding treatment. However, in patients having a diagnosis of chronic granulocytic leukemia, carefully differentiated from agnogenic myeloid metaplasia, which may run an exceedingly indolent course, accelerated activity of the process within a few months may be anticipated and experience has shown that it is usually advisable to begin treatment as soon as the condition is recognized.

On the other hand, chronic lymphocytic leukemia may remain in an apparently steady state without producing disability for years and during such periods when the host-tumor relationship favors the former, nothing is to be gained by therapeutic interference. Such patients should be advised to return for periodic examinations at three-month intervals and to report at once in the event of unusual symptoms or signs of a febrile illness.

When the decision to institute treatment is made, the selection of the agent will depend on several factors. These are: the type and state of activity of the disease, any peculiar or localized manifestations which may be present, the interest of the physicians in maintaining close surveillance of the case, adequate laboratory facilities, and the ability and willingness of the patient to co-operate.

Chronic Granulocytic Leukemia

Currently, major emphasis is placed by most hematologists on the use of chemical agents rather than radiation in the treatment of chronic granulocytic leukemia. Some of the reasons for this preference may be criticized as superficial, such as novelty or the desire to retain management of the case. On the other hand, while conceding that chemotherapy has no qualitative superiority over radiation, it has been possible to maintain more continuous and even control in chronic granulocytic leukemia with busulphan (Myleran) than with either x-ray or radioactive phosphorus and we regard this drug as clearly the agent of choice unless there are indications for local therapy and, even in such cases, as in spinal nerve root involvement, Myleran may be given as systemic treatment coincident with local x-radiation.

Experience with Myleran in the treatment of chronic granulocytic leukemia at the Simpson Memorial Institute is summarized on Table II. This drug was first used by us in 1953 and through 1958 it was administered to fifty-five patients with chronic granulocytic leukemia. Twenty-four of these patients, most of them seen in the earlier years of Myleran's use, had previously received another form of treatment. It is still too early to determine survival statistics for patients with chronic granulocytic leukemia treated initially with Myleran and continued on it until the development of a refractory state. However, our own experience, as well as that of others, indicates that the mean and median survival times will be little, if any, longer than those obtained with radiation therapy.[6] However, patients have been maintained in better health up to the terminal phase of their illness while on Myleran therapy than when treated with radiation or other modalities. It is quite possible that the regularly spaced, individually titrated radiation dosage schedule advocated by Osgood[5] produces results equal to those obtained with Myleran. In any event, we and others have concluded that continuous drug therapy on individually adjusted doses is superior to intermittent courses of treatment.

No definite relationship has been observed between the weight of the patient and the dose-requirement and at present we employ, in almost every case of chronic granulocytic leukemia, a starting dose of 6 mg. (three tablets) of Myleran daily. The patient should be observed at intervals of not longer than two weeks and, as soon as an appreciable fall in the leukocyte count occurs, the dosage should be reduced to 4 mg. daily and, subsequently, as maintenance treatment to 2 mg. daily or 2 mg. three to two times weekly. Follow-up intervals may then be prolonged to one to two

months. Administration of Myerlan is temporarily discontinued if the leukocyte count falls below 8,000 per cu. mm. and resumed when it rises above 10,000 per cu. mm. Like all myelotoxic drugs, profound leukopenia, thrombocytopenia and aplastic anemia may follow overdosage with Myleran, but, in comparison with most other alkylating agents, it is relatively safe.

TABLE II. DOSAGES AND THERAPEUTIC RESPONSES IN PATIENTS WITH CHRONIC GRANULOCYTIC LEUKEMIA TREATED WITH MYLERAN

Number of Cases	Initial Therapy Milligrams Per Day			Maintenance Therapy Milligrams Per Day or Week			Therapeutic Responses and Status of Disease			
							Satisfactory		Unsatisfactory	
	Min.	Usual	Max.	Min.	Usual	Max.	No.	%	No.	%
55	4	6	12	4/week	2/day	4/day	43	78.2	12	21.8
							33 early cases 10 advanced cases		4 early cases 8 advanced cases	

Although other compounds which possess two or more alkyl groups are effective in the treatment of chronic granulocytic leukemia [notably nitrogen mustard and triethylene melamine (TEM)] they are rarely indicated. The advantages of nitrogen mustard in special circumstances depend upon its quick action and its parenteral route of administration.

Chronic Lymphocytic Leukemia

Aside from the obvious hematologic changes and the usual clinical features, chronic lymphocytic leukemia differs from the granulocytic form of the disease in the exceedingly variable natural course of the illness and in its responsiveness to treatment. The indications for regional rather than total body or systemic therapy are more frequently present in lymphocytic than in granulocytic leukemia, so that, in spite of the introduction of potent chemical agents, x-radiation retains an important role in the management of patients with lymphocytic leukemia.

Almost all of the patients with chronic lymphocytic leukemia who have been followed by us over a period of years at some time during the course of their illness have received local x-radiation. However, at present, the majority of them are treated initially with a drug. Nitrogen mustard and TEM are effective in chronic lymphocytic leukemia, but their use has been almost completely replaced by chlorambucil (Leukeran, CB 1348). This alkylating agent exerts its effects on hemopoietic and lymphatic tissues more slowly and with less cumulative action than either nitrogen mustard or TEM and, consequently, may be given with relative safety and in continuous therapeutic regimens.[4] There is also evidence that chlorambucil acts with a high degree of selectivity on proliferating lymphocytes and lympho-reticular cells. Since the myeloid reserve is often greatly reduced in patients with lymphocytic leukemia and extensive bone marrow infiltration, the advantage of an agent which has relatively little effect upon it is obvious.

TABLE III. DOSAGES AND THERAPEUTIC RESPONSES IN PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA TREATED WITH CHLORAMBUCIL

Number of Cases	Initial Therapy Milligrams Per Day			Maintenance Therapy Milligrams Per Day or Week			Therapeutic Responses and Status of Disease			
							Satisfactory		Unsatisfactory	
	Min.	Usual	Max.	Min.	Usual	Max.	No.	%	No.	%
47	2	12	18	6/week	2/day	4/day	41	87.2	6	12.8
							37 early cases 4 advanced cases		2 early cases (both developed drug sensitivity) 4 advanced cases	

Experience at the Simpson Memorial Institute with chlorambucil in chronic lymphocytic leukemia is based upon the treatment of fifty-one patients with this disease in the years 1955 to 1958 inclusive (Table III).

Initial therapy with chlorambucil may be determined by the patient's weight in a dose range of 0.1 to 0.2 mg. per kg. of body weight per day. However, most patients, unless they are debilitated or have extensive bone marrow infiltration with

severe anemia and thrombocytopenia, are treated initially with 12 mg. (six tablets) daily. As soon as effects are noted, either on tumor size or number of circulating lymphocytes, the dosage should be reduced by one-half. When adequate control has been attained, a maintenance dose of chlorambucil of 2 to 4 mg. per day is generally well tolerated with follow-up examinations at intervals of one to two months. Occasionally, sensitivity to chlorambucil develops, manifested by severe and sometimes exfoliative dermatitis. When this occurs, TEM given cautiously in doses not to exceed 2.5 mg. per week may be substituted for chlorambucil.

Criteria for satisfactory control in chronic lymphocytic leukemia are less readily established than is true for the granulocytic form of the disease. In the latter, virtual disappearance of clinical and hematologic abnormalities can be expected during periods of good therapeutic responsiveness. On the other hand, it is unusual for patients with chronic lymphocytic leukemia to exhibit complete regression of lymphoid tumors and restoration of normal blood values. In general, control may be considered satisfactory when there is stability of clinical status without disability together with maintenance of leukocyte levels at about 20,000 or less per cu. mm., hemoglobin values above 11.0 gms. per 100 ml. and platelet counts greater than 150,000 per cu. mm.

Corticostreoids in Chronic Leukemia

There are two developments occurring in the course of chronic leukemia for which corticosteroids are indicated. These are: (1) secondary auto-immune hemolytic anemia, thrombocytopenia or granulocytopenia and (2) advanced disease, with depression or exhaustion of normal hemopoiesis, associated with emaciation, debility and usually a hemorrhagic tendency.

In the management of secondary auto-immune disorders, which develop in about 10 per cent of patients with chronic lympocytic leukemia, but very rarely in the granulocytic form of the disease, a generally satisfactory plan of treatment has been initial dosage of hydrocortisone, 50 mg. every six hours, together with supplementary potassium, antacids and sodium restriction. After one to two weeks of high dosage, the amount of the drug is gradually reduced until, in most cases, 15 mg. is taken every eight or twelve hours. Instead of hydrocortisone, equivalent doses of one of the $\triangle^1$ derivatives (prednisone, prednisolone, methyl prednisolone dexamethasone) may be used and these compounds are probably superior for long-term administration.

In advanced chronic leukemia, no longer responding favorably to suppressive or cytotoxic agents, the corticosteroids continuously administered in low to moderate-sized doses may have some myelostimulatory as well as subjective palliative effect. Because of their myelostimulatory action, these hormones are contraindicated in proliferative phases of chronic granulocytic leukemia.

Acute Leukemia in Adults

Although much attention has been given to the therapy of acute leukemia in childhood since the introduction of the metabolic antagonists and the corticotropic and adrenocortical hormones, there has been but little over-all evaluation of modern therapy in acute leukemia of adults.[5] In order better to appreciate the problem of acute leukemia, which now affects many more adults than chronic leukemia, it may be instructive to review the information offered by an analysis of a case series observed at the Simpson Memorial Institute in the decade of 1948 through 1957.

For the purposes of this discussion and because the two categories merge together imperceptibly and the treatment of both is similar, the subacute and acute forms of leukemia are considered together under the heading of "acute."

The era of definitive therapy may be said to have begun in 1948 when the folic acid antagonists were introduced as effective agents in some cases of acute leukemia.

Two hundred and twenty-six persons above the age of thirteen years having acute leukemia were observed and followed by the staff of the Institute during the decade beginning in 1948. It is convenient to consider the group in terms of those seen during each of the two consecutive five-year periods from the standpoints of number, age, sex, cell type, and response to treatment.

It has been repeatedly emphasized that therapeutic responses are generally more favorable in children with acute leukemia than in adults, whereas less attention has been given to age differences within the adult group. We have been impressed by the observation that the dividing point in percentage of favorable responses, as well as in sex predilection and in the rate of increase of incidence, occurs at about the age of thirty rather than at puberty. Therefore, the patients are sub-

divided for each of the time periods into those between the ages of fourteen and twenty-nine years inclusive and those thirty years of age and older.

After childhood, the highest incidence of acute leukemia in terms of number of living persons is in the decade of fifty to fifty-nine years. Between the ages of fourteen and twenty-nine years, males and females are equally affected, whereas after the age of thirty years is attained, the incidence of acute leukemia is significantly higher in males (Table IV).

TABLE IV. AGE AND SEX DISTRIBUTION OF 226 ADULT CASES OF ACUTE LEUKEMIA

Age in years	14-19	20-29	30-39	40-49	50-59	60-69	70-79	80-
No. of cases	52	43	40	25	39	19	7	1

	Male	Female
14-29 years	47	48
30 years and over	75	56
Total	122	104

The percentage increase in this series of acute leukemia in persons fourteen to twenty-nine years old in the second five-year period over the preceding five years is 32 per cent, whereas in persons above the age of thirty years it is 67 per cent (Table V). These data are in accord with observations made in several parts of the world—that the greatest rate of increase in the incidence of acute leukemia is in the older age groups.

TABLE V. THE NUMBER OF ADULT CASES OF ACUTE LEUKEMIA SEEN EACH YEAR OVER A DECADE WITH A COMPARISON OF THE FIRST AND SECOND FIVE-YEAR PERIODS

Year	48	49	50	51	52	Total	53	54	55	56	57	Total
14 to 29 years	7	10	8	9	7	41	9	11	9	12	13	54
30 years and over	8	11	9	13	8	49	15	16	19	15	17	82

With respect to the frequency of different cell types in acute leukemia, the following conclusions may be drawn from the analysis of our series of cases (Table VI). Granulocytic leukemia is the commonest form in the age group between fourteen and twenty-nine years but still accounts for a considerable number of cases above the age of thirty. Monocytic leukemia is much more frequently encountered in the older than in the younger group and accounts for one-half the cases in persons thirty years of age and older. Acute lymphocytic leukemia is rare above the age of puberty and especially so in the older adult group.

The mainstays of therapy in acute leukemia are the antipurines, represented by 6-mercaptopurine (Purinethol), the folic acid antagonists, exemplified by methotrexate (Amethopterin) and the corticosteroid hormones. Unless the patient is extremely ill, it is our practice to initiate therapy in adults with 6-mercaptopurine, usually in a daily dose of 2.5 mg. per kg. of body weight to the nearest 25 mg. However, in the toxic or bleeding patient corticosteroids are administered at once, in a dose range of 200 to 300 mg. of hydrocortisone daily or equivalent amounts of one of the synthetic steroids.

Some adult patients who have become refractory to the more moderate doses of steroids may achieve remissions from the administration of relatively massive amounts, such as prednisone 500 mg. or methyl prednisolone, 400 mg. daily continued for five to ten days, then tapered to usual maintenance doses of 10 to 20 mg. daily.

TABLE VI. CLASSIFICATION OF 226 CASES OF ACUTE LEUKEMIA BY CELL TYPE

Age Group (Years)	Granulocytic*		Monocytic†		Lymphocytic		Total
	No.	%	No.	%	No.	%	
14-29	58	61.1	22	23.2	15	16.7	95
30 and over	55	42.0	65	50	11	8.0	131
Total	113	50.0	87	38.5	26	11.5	226

*Granulocytic leukemias include both the undifferentiated hemocytoblastic or "stem cell" types and those showing some myeloid differentiation.

†Monocytic leukemias include both the myelomonocytic (Naegeli) and the histiomonocytic (Schilling) types.

Methotrexate has limited usefulness in acute leukemia of adults because of its toxicity, but it may be cautiously tried when the patient has become resistant to 6-mercaptopurine. The usual starting dose is 5 mg. daily with frequent blood examinations and it is advisable to administer it together with a corticosteroid.

Statistical analysis of the therapeutic results in acute leukemia achieved by different regimens and according to age groups, is beyond the scope of

this paper. However, the interpretation of the data afforded by our series has led us to the following generalizations. Therapeutic results with either antimetabolites or corticosteroids or both in combination are much superior in the fourteen to twenty-nine year age group than in older adults with acute leukemia. In the younger group results with the antipurines and the folic acid antagonists alone or in combination with corticosteroids are about equal. Corticosteroids alone are inferior. In the older group, best results have been obtained with the antipurines alone or in combination with the steroids.

The survival figures for all the patients in our series, however treated, but grouped according to time period and age categories, are presented in Fig. 1. The major therapeutic advances in the second period over the first were the introduction of 6-mercaptopurine, the general availability of an increasing number of corticosteroids, improvements in methods of transfusion of blood and blood constituents, and the development of a wide variety of antibiotics.

In spite of progress in the treatment of the disease the survival curves show only modest improvement at the 50 per cent and 25 per cent levels. Of the younger patients, 50 per cent survived for 4.4. months in the first period and 5.6 months in the second, whereas the 25 per cent survival times were respectively 7.2 months and 10.2 months. The older subjects showed improvement in survival of from 1.8 months to 3.4 months for 50 per cent of the patients and from 3.7 months to 6.2 months for 25 per cent.

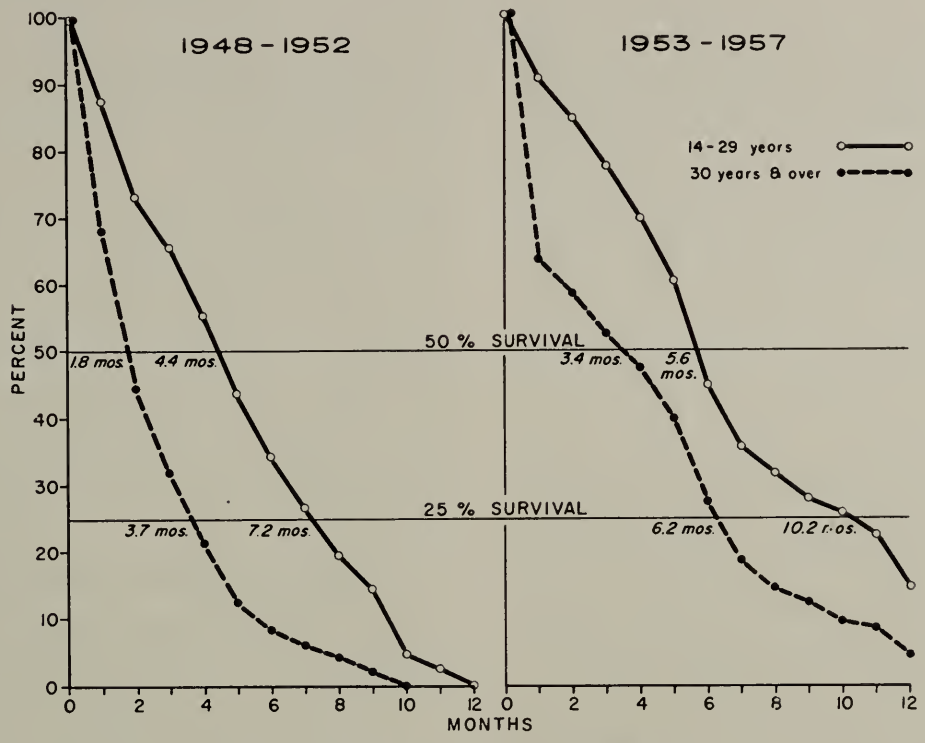


Fig. 1. Survival in adult acute leukemia.

Although the treatment of acute leukemia is fraught with discouragement, it seems justifiable to assume toward the problem a positivistic attitude since carefully planned and controlled therapy not only prolongs life in most patients suffering from this disease, but promotes, for a time, well-being and instills confidence and optimism in patients and relatives.

Summary

The present status of the treatment of chronic and acute forms of leukemia has been reviewed particularly from the standpoint of experience gained at the Simpson Memorial Institute.

(References on Page 622)

Medical Education at the University of Michigan

By Dorin L. Hinerman, M.D.,
H. Waldo Bird, M.D.,
and John M. Weller, M.D.

Ann Arbor, Michigan

THIS is a report to Michigan physicians of efforts being made by the faculty of The University of Michigan Medical School to meet the challenges and find solutions for the problems which the expanding dimensions of medical knowledge and the changing status of patients pose to American medicine. The point has been reached where no physician can possibly assimilate the details of all available medical knowledge. New approaches must be devised to organize, store, teach, communicate and utilize medical information in the most efficient manner. One effect of this expansion of knowledge has been the prolongation of the period of training of the undergraduate and postgraduate student of medicine and consequent increase in the required expenditure of time, energy and money on the part of the student. These heavy demands have tended to act as a deterrent to individuals who might otherwise have elected to study medicine. Another accompaniment of the growth of the body of medical knowledge has been the increasing trend toward specialization.

The needs and statuses of patients are currently undergoing marked changes. The national population is aging, increasing, migrating and gradually attaining a higher socio-economic level. The incidence of chronic diseases is rising and the problems of the emotionally and mentally ill person require greater amounts of the physician's attention. Redistribution and relocation of medical manpower are becoming necessary as a result of shifts in population densities. Fewer Americans are indigent and a rising percentage of patients is subscribing to some type of health insurance plan.

Dr. Hinerman is Professor of Pathology, University of Michigan Medical School, Ann Arbor, Michigan, and Chairman, Committee on Teaching Policies and Practices.

Dr. Bird is Associate Professor of Psychiatry, University of Michigan Medical School and Secretary, Committee on Teaching Policies and Practices.

Dr. Weller is Associate Professor of Internal Medicine, University of Michigan Medical School and Executive Secretary, Committee on Teaching Policies and Practices.

Other members of this Committee are John M. Sheldon, M.D., John W. Henderson, M.D., Russell T. Woodburne, Ph.D., and Marion S. DeWeese, M.D.

It is the responsibility of all physicians, those who teach and those who practice medicine, to review their objectives and approaches in the light of new developments and changing conditions. Such a reappraisal of its own goals and methods is now being undertaken by the faculty of The University of Michigan Medical School and it is the purpose of this report to inform physicians of the State concerning the steps which have already been taken. To this end, the preparations for and the activities of the recently-conducted Teaching Institute will be described and the program of reappraisal which grew out of this Institute will be discussed.

Preparation for the Teaching Institute

At a meeting of the executive faculty of the Medical School held late in 1957, the suggestion was made that a Teaching Institute be conducted by the Medical School in order that medical educational problems of interest to all members of the faculty might be considered. Following an active discussion of this proposal, unanimous approval to hold such an Institute was given and a Planning Committee was appointed. Members of the Planning Committee began their work in January 1958, six months in advance of the Institute. It was agreed early in this preparatory period that the Institute should be a two-day affair devoted solely to defining and exploring the problems and challenges confronting the faculty of The University of Michigan Medical School. It was decided that the program should include three general sessions at which distinguished educators might discuss topics of importance in medical education, that each plenary session should be followed by small group discussions and that the program should be closed by a final session at which "summing up" would be the major objective. An announcement of the date and the purpose of the Teaching Institute was sent to all members of the medical faculty approximately four months before the meetings were held. The announced purpose was "to provide each member of the faculty with

an opportunity to explore the problems confronting him as a medical educator."

The next phase of the Committee's activities involved the compilation of a list of fifty provocative questions which was circulated to the entire faculty three months prior to the Teaching Institute. Each member of the faculty was requested to indicate his relative degree of interest in the issues raised and, in addition, was asked to designate the topics he most desired to discuss by selecting three "forced choice" questions from the entire list.

One month prior to the Teaching Institute, nineteen discussion panels were organized. These were comprised of individuals with widely varied backgrounds and general interests, yet having a common interest in specific topics as indicated by responses to the questionnaire. Panels were limited to twelve participants in order to facilitate the exchange of viewpoints between members. Panel chairmen were chosen from the membership of the Curriculum Committee, the Admissions Committee, and the Planning Committee of the Teaching Institute in an effort to provide leadership by individuals actively engaged in meeting frontline problems in medical education. A second member of each discussion group was given responsibility for recording its transactions. Two weeks prior to the Teaching Institute the chairman of each panel received for his information the questionnaires returned by members of his panel.

The Activities of the Institute

At the time the opening session of the Institute was called to order on June 6, 1958, by the chairman of the Planning Committee, 225 participants, an unexpectedly large number of the faculty, were present. The welcoming addresses given by President Hatcher[4] and Dean Furstenberg[2] brought into sharp focus the need for and the objectives of the Institute. The first guest lecturer to speak was George E. Miller, M.D., Director of the Project in Medical Education of the University of Buffalo, whose topic was, "What Are We Trying to Do?"[5] In his remarks, Dr. Miller stressed the need for introspection and a clear definition of teaching goals on the part of the teacher of medicine. The nineteen panels then convened in separate conference rooms for a two-hour period.

Robert Harnack, Ph.D., Associate Professor of Education at the University of Buffalo, spoke on the subject, "How Do We Go About Doing It?"[3] to open the afternoon session. This presentation contained numerous practical suggestions as to how the medical educator might proceed in attaining his teaching objectives. After Dr. Harnack's talk, the individual panels resumed their discussions.

The final session, held on the morning of the second day, began with an address by John A. D. Cooper, M.D., Ph.D., Assistant Dean of Northwestern University Medical School. In his paper, "Educational Patterns in Medicine,"[1] Dr. Cooper summarized trends developing in the efforts of medical education to meet present-day problems and challenges. The third and final discussion period for the panels then took place. Following these small group discussions, all participants in the Teaching Institute reconvened to hear and comment upon brief summaries of the deliberations of each panel presented by the nineteen chairmen. The observations made during this closing session reflected the great enthusiasm of those taking part in the meetings and disclosed a consensus of opinion that reappraisal of medical education at the University of Michigan should become an integral part of the faculty's activities.

The reports of the panel meetings of the Teaching Institute make it obvious that the faculty of The University of Michigan Medical School is eager to face its educational problems and to work out solutions to them. These reports covered and revealed great interest in a wide range of subjects including the medical school curriculum, techniques and goals of medical teaching, faculty-student relations, medical student activities and morale and the responsibilities of the faculty to the community.

The Committee on Teaching Policies and Practices

The long-range program for evaluation of all aspects of medical education at The University of Michigan was organized in response to the participants' strong recommendation that such reappraisal be incorporated into the official activities of the Medical School. Responsibility for this continuing program has been invested in the original Planning Committee of the Institute whose members were reappointed to serve on what has been entitled the Committee on Teaching Policies and Practices. Shortly after the Institute, this new Committee was directed by Dean Furstenberg to analyze the data gathered during the Teaching

Institute and to develop a program for future action. He also requested that the Committee nominate an executive secretary to assist in this work.

During the past summer the Committee met regularly to review the voluminous transactions of the Teaching Institute and to define the high-interest areas contained in these discussions. Concurrently, it drafted a program of action and concluded that a series of subcommittees should be appointed to conduct thorough investigations in the areas identified. At the present time, it is planned that subcommittees will begin a consideration of examinations and grades, student-faculty relationships and communication between members of the faculty involved in the teaching of first-year students. As soon as these subcommittees are appointed and begin to function effectively, other subcommittees will be appointed to work with similarly pertinent problems. The chairmen of the nineteen panels participating in the Institute have been requested to designate those members of their panels who, by demonstrating an active interest in the problems of medical education during the formal group meetings, might serve as members of the proposed subcommittees. The findings and activities of these subcommittees will be correlated and integrated by the Committee on Teaching Policies and Practices in order that specific recommendations may be made to the Dean and Executive Committee of the Medical School and to the faculty at large. In addition to the co-ordinating function described, the Committee on Teaching Policies and Practices intends to act as a clearing-house of information. The responsibility for keeping the Committee informed concerning the teaching program of other medical schools and for repeated surveys of the wishes of the medical faculty with regard to teaching methods, approaches and goals has been assumed by the executive secretary.

At the first fall meeting of the executive faculty, the chairman of the Committee on Teaching Policies and Practices reviewed its recent activities and the projected plan of action. This program was unanimously approved and the Committee was given a vote of confidence. The Committee now looks to the future in anticipation of fulfilling its role as a mobilizing force to enable the medical faculty to develop a program of medical education most effective for The University of Michigan Medical School. By this means, future physicians of the State will be provided with a fund of knowledge and skills adaptable to the health needs of Michigan's citizens and some of the challenges with which medicine is confronted will be met.

References

1. Cooper, J. A.: Educational patterns in medicine. Univ. Michigan M. Bull., 24:316-324 (Aug.) 1958.
2. Furstenberg, A. C.: History and purpose of the teaching institute. Univ. Michigan M. Bull., 24:295-296 (Aug.) 1958.
3. Harnack, R. S.: How do we go about doing it? Univ. Michigan M. Bull., 24:306-311 (Aug.) 1958.
4. Hatcher, H.: Address of welcome. Univ. Michigan M. Bull., 24:293-294 (Aug.) 1958.
5. Miller, G. E.: What are we trying to do? Univ. Michigan M. Bull., 24:297-303 (Aug.) 1958.

ADVANCES IN THE TREATMENT OF LEUKEMIA

(Continued from Page 619)

References

1. Bethell, F. H.: The relative frequency of the several types of chronic leukemia and their management. J. Chron. Dis., 6:403, 1957.
2. Bethell, F. H., and Thompson, D. A.: Treatment of leukemia and related disorders with 6-Mercaptopurine in "6-Mercaptopurine." Ann. New York Acad. Sc., 60:436, 1954.
3. Court-Brown, W. M., and Doll, R.: Spec. Rep. Med. Res. Council 295 (H.M. Stationery Office, London, 1957).
4. Doan, C. A.,Wiseman, B. K., and Bouroncle, B. A.: Clinical evaluation of CB1348 in leukemias and lymphomas, in "Comparative clinical and biological effects of alkylating agents." Ann. New York Acad. Sc., 68:979, 1958.
5. Ellison, R. R., and Burchenal, J. H.: Therapy of acute leukemia in adults. J. Chron. Dis., 6:421, 1957.
6. Galton, D. A. G., Till, M., and Wiltshaw, E.: Busulfan (1,4-Dimethanesulfonyloxybutane, Myleran): Summary of clinical results, in "Comparative and biological effects of aklyating agents." Ann. New York Acad. Sc., 68:967, 1958.
7. Osgood, E. E., and Seaman, A. J.: Treatment of chronic leukemias, results of therapy by titrated, regularly spaced total body radioactive phosphorus or roentgen irradiation. J.A.M.A., 150:1372, 1952.
8. Shimkin, M. B.: Mortality from Leukemia and Lymphoma in the United States. Proc. 6th Internat. Cong. Internat. Soc. Hematology. New York: Grune and Stratton, 1958.
9. Third, Fourth and Fifth Reports of the Committee for Clarification of the Nomenclature of Cells and Diseases of the Blood and Blood-Forming Organs. Am. J. Clin. Path., 20:562, 1950.

Detroit Surgical Association

Meeting of September 25, 1958

A NEW CATEGORY OF CONTRAST MEDIA: WATER-SOLUBLE, RADIO-OPAQUE, POLYVALENT METALLIC CHELATES

By Robert M. Nalbandian, M.D., William T. Rice, M.D., Warren O. Nickel, M.D., and Charles G. Johnston, M.D.

Polyvalent metallic chelates comprise a category of compounds which may serve as ideal contrast media because of certain physical and chemical properties. These properties include radio-opacity, aqueous solubility, physiologic inertness within dosage limits, crystalline structure, and rapid excretion.

The chelate used in this study was Bismuth Diethylenetriamine-tetraacetate (BiDTPA). BiDTPA should be regarded in this paper as a prototype of the scores of metallic chelates available as contrast media.

Bronchographic studies with BiDTPA in anesthetized mongrel dogs were of diagnostic quality. Rapid absorption and mobilization of BiDTPA from the lungs occurred consistently. No contrast medium could be detected in the chest films taken twenty-four hours after instillation.

Angiocardiographic studies with BiDTPA demonstrated unexpected problems of adversely altered chelation stability in plasma. Anatomic evidence suggested that Bi++ion escapes the chelate bond in plasma. Diagnostically useful angiocardiograms were obtained in surviving dogs. However, the MLD was disconcertingly approximate to the useful dose.

An attempt to support experimentally a theoretical solution of the problem of altered chelation stability in plasma was made. This involved the concepts of (1) Common ion effect and (2) Displacement reactions of competing chelation systems. The data is suggestive that a mixture of the metallic chelate and the calcium analogue may restore chelation stability in plasma. However, the data in this regard is considered incomplete.

An ideal water soluble contrast medium may well be developed from among the scores of polyvalent metallic and rare earth chelates still to be synthesized and/or investigated.

EFFECT OF DIETARY CHOLINE ON BILIARY PHOSPHOLIPIDS EXCRETION†

By Fumio Nakayama, M.D., and Charles G. Johnston, M.D.

Since it has been repeatedly pointed out that phospholipids in bile holds cholesterol in solution with associated bile salts and thus prevents gallstone formation, we studied the effect of phospholipid administered in association with animal bile on patients having common duct stones. Choline is an essential part of the biliary phospholipids which are mainly composed of lecithin and the supplementation of dietary choline may increase the phospholipids excretion in bile and this is favorable to the patient having common duct stones. Consequently, the study of the absorption and incorporation of dietary choline into the biliary phospholipid is important at this time.

After the administration of choline-(methyl-C^{14}) through the distal end of the severed common duct into the duodenum of rats, radioactivity appears in bile instantly, reaches its maximum in the second to the third hour and gradually decreases. About one per cent of the total administered radioactivity is recovered in bile in ten hours after the administration. Most of the radioactivity in bile is recovered as choline. Silicic acid column chromatography revealed the incorporation of administered choline into the biliary phospholipids. It was clearly demonstrated that dietary choline is quickly absorbed, incorporated into phospholipids molecules and excreted in bile.

Meeting of October 28, 1958

EXPERIENCES WITH THE HUFNAGEL VALVE

By Lyle Jacobson, M.D., James Wible, M.D., and Prescott Jordan, M.D.

The problem of handling valvular insufficiencies, especially aortic insufficiency, is discussed. The various procedures available are mentioned and the author's experience with the prosthesis which has had the widest clinical trial is summarized. Twenty-three patients have had the prosthesis inserted into the descending aorta; seventeen are dead and six alive, a survival rate of 26 per cent. The causes of operative and late deaths are discussed. Finally, the fate of the six surviving patients is summarized.

---

†From the Department of Surgery, Wayne State University College of Medicine, and the Detroit Receiving Hospital, Detroit, Michigan.

Supported in part by a grant from the National Institute of Health A-659 (C3) and A-699 (C3); the Parke, Davis and Company; and the Research Corporation of the Detroit Receiving Hospital.

CONGENITAL ARTERIO-VENOUS COMMUNICATION AS A POSTERIOR MEDIASTINAL TUMOR

By Atalay M. Murguz, M.D., James A. Cole, M.D., and Kenneth A. Wood, M.D.
Department of Surgery, Highland Park General Hospital

The most comprehensive coverage of A-V communication in the medical literature is the recent article by Fisher and Johnson of Denver, Colorado. They emphasize the difficulty of correct histopathologic diagnosis of A-V communications because of their strong resemblance to hemangiomas. The recent case which constitutes the basis of this report tends to confirm this point. The case is also believed to be the first one reported in the locality of posterior chest.

The patient, a white man, aged forty-seven, was admitted as a result of a routine x-ray examination which revealed a mediastinal tumor. The physical examination was essentially negative except for a report of high hemoglobin and erythrocyte count. The confirming chest x-ray revealed a large tumor mass located posteriorly in the region of the 9th and 10th dorsal vertebrae. The radiologist suggested that the possibility of a neuroganglioma must be seriously considered.

On surgery, the tumor mass was discovered not to have been involved with the lungs; neither was it a cyst of the spinal canal origin. On aspiration bright blood was obtained. Therefore, the mass decided to be an arterio-venous communication originating from the 9th intercostal vessels.

On final consideration, the outstanding points of the case are found to be the following. First, surgical removal of the mass is the best treatment; secondly, the structural similarity to hemangiomas requires that the pathologist be informed of the clinical findings to insure the reaching of compatible diagnosis.

Meeting of November 25, 1958

EARLY DIAGNOSIS AND TREATMENT OF CORROSIVE BURNS OF THE ESOPHAGUS

By Eugene L. Yurich, M.D.
Department of Otolaryngology, Wayne State University Medical School and Receiving Hospital, Detroit, Michigan

In addition to the lack of uniformity and controversial methods of therapy in the treatment of corrosive lesions of the esophagus, other distressing facts are recognized: (1) Inadequate early diagnosis based on presumptive evidence; (2) Withholding early therapy because of an inadequate diagnosis; (3) Institution of treatment without an accurate diagnosis; (4) Needlessly long hospital confinement.

With the advent of cortisone therapy and its substantiation by experimental and clinical means, earlier and more accurate methods of diagnosis became necessary.

We therefore instituted early esophagoscopy in our diagnostic regimen. This must be done within twenty-four to forty-eight hours in order to confirm the initial impression and allow for early treatment with cortisone. Early treatment is stressed because of the inadequacy of cortisone after the first forty-eight hours.

In our present study, thirty-seven patients with presumptive lesions of the esophagus were examined within twenty-four hours and ten (27 per cent) actually had burns. These ten were treated with cortisone with eight responding favorably and two developing strictures in spite of treatment.

Early esophagoscopy has been subjected to criticism. We feel, however, that it is not as dangerous a procedure as felt by some, and certainly is less dangerous than performing the procedure from the fourth to the seventh day as proposed by others.

Cortisone, although of definite value and an acceptable form of therapy in corrosive esophagitis, is not the entire answer as evidenced by our two failures. In addition to concerted aims toward prophylaxis in corrosive burns, we must continue to look for new and better modes of treatment.

DEATH CLAIM BENEFITS FOR POLIOMYELITIS

"Death claim benefits for poliomyelitis have decreased dramatically in the past five years. . . . Last year the Company disbursed only $52,000 on account of deaths from this disease; this compared with $215,000 the year before and with payments of $849,000 in 1952. Much of the sharp decrease last year can undoubtedly be attributed to the wide use of the Salk vaccine."—Statistical Bulletin, Metropolitan Life Insurance Company, April, 1958.

Michigan Cancer Coordinating Committee Offers Progress

The effectiveness of cancer control will be increased beyond measure with general approval of the MCCC's recent decision to create a Central Cancer Registry in Michigan.

It is expected that the registry will give an impetus to professional education and result in a higher level of early cancer detection and control in Michigan. It will also give added information on the quality and quantity of cancer care.

This is a major accomplishment of the Michigan Cancer Coordinating Committee chaired by Harry M. Nelson, M.D., Detroit, past president of the American Cancer Society. Heading the subcommittee which developed the basic plans for the Registry is James W. Hubly, M.D., of Battle Creek.

During its five-year history, the Michigan Cancer Coordinating Committee has unified cancer control efforts and aided materially in eliminating duplication among the six groups working primarily in this important area. Perhaps even more important is its success in stimulating the development of new methods in cancer control.

The MCCC has fully justified its existence. Credit for successful endeavor should be extended to all six agencies which compose the committee: American Cancer Society, Michigan Division, Inc.; American Cancer Society, Southeastern Michigan Division; Michigan Department of Health; Michigan Health Officers Association; Michigan State Dental Association; and the Michigan State Medical Society.

Both the public and medicine owe thanks to the creative and cooperative work of this dedicated group.

Delbert B. Dallenbach

President, Michigan State Medical Society

President's



Message

Editorial

EVERY PHYSICAL EXAMINATION A CANCER DETECTION PROCEDURE

The physician who applies the above slogan to his ordinary routine physical examinations will achieve success far beyond the average in diagnosing cancer. If he will ask himself, about *every* patient but especially those persons past forty, "Could this be cancer?" he will become alert to the earliest indications of cancer.

What kind of examination is a "cancer detection procedure?" The answer is, a good general physical examination *plus* certain specialized studies which have proved valuable in diagnosing common silent cancers. These are, briefly:

1. Gastric analysis for achlorhydria
2. Chest x-ray
3. Proctosigmoidoscopic examination
4. Complete pelvic examination on all female patients. Papanicolaou smear is valuable.
5. Blood count
6. Stool examination for occult blood

How much will the patients benefit? Some statistics to think about: At the University of Minnesota Cancer Detection Center 85 per cent of the cases of visceral cancer in the presymptomatic group, and 68 per cent of those diagnosed after symptoms appeared, have survived five years or longer. In a typical midwestern county, only 36 per cent of persons diagnosed as having cancer survived as long.

The discovery of cancer in the presymptomatic stage will significantly reduce cancer deaths. At present, in the common nation-wide experience, only 30 per cent of cancers are localized when diagnosed, and 50 per cent are completely incurable when first found. The answer is to *search* for cancer, to consider the possibility of it always, and to detect it oftener in the early "silent" phase, when the chance for a permanent cure is best.

Let's have each member of the Michigan State Medical Society carry out this idea: *Every Physical Examination a Cancer Detection Procedure!*

James W. Hubly, *Vice Chairman*
Cancer Co-ordinating Committee

VOLUNTARY HEALTH INSURANCE FOR THE AGED

Blue Shield, from its inception, has been concerned with medical care for the aged and has never cancelled contracts on account of age. Those over sixty-five, by action of the federal government, have been placed in a group by themselves. Setting the retirement age at sixty-five and urging employed persons to retire at that age made them eligible for the newly formed social security benefits. This very definitely set apart a large segment of our population. The social security benefits are inadequate for a living. If they continue working, these people are denied the benefit if their earnings exceed $1,200 a year, unless they have passed age seventy-two (previously seventy-five).

Persons, who during their active working years, have been able to accumulate funds or securities to augment their social security benefit, or who had established annuities, pensions, or other incomes, were and are no problem. There have been many studies and surveys on the subject. A very important one was conducted by the National Opinion Research Center of the University of Chicago for 1957, giving definite figures. They found 38 per cent of those surveyed were covered by some form of voluntary health insurance. They found that 61.2 per cent had formerly been insured, had been rejected for insurance, or had never tried to get it.

At the annual clinical (interim) meeting in Minneapolis on December 4, 1958 the AMA House of Delegates recognized this problem and unanimously adopted a resolution, a statement of principles, pledging medical care:

> "For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health *insurance* or *pre-payment* plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens."

Thus was very definitely designated a group of our aged people who are entitled to medical protection because of causes not of their own choosing, the victims of economic circumstances men-

tioned previously. Blue Shield Commission and its special committees immediately began developing a schedule of what this group of people need—and what could be done. The first objective was to develop a practical pattern of benefits designed to meet the special medical needs of persons over sixty-five and secondly, to suggest a level of compensation for those services which would permit rates commensurate with the "modest resources or low family income" of that portion of this age category.

Utilization and cost studies have clearly indicated that the incidence of medical care for this age group is greater and consequently costlier. It was evident however, that there were favorable considerations indicating a completely new service contract. The need for surgery increases in certain categories, but many high cost and high incidence procedures, such as tonsillectomy and appendectomy, which are common in the younger age, can be minimized. Obstetrical benefits could be excluded and pre-existing conditions could be deferred.

We are not concerned with the elderly person who has an adequate income. He can and should buy the regularly established protection in his income group still offered. The three or four items mentioned above have been responsible for the high utilization and the high cost. The special committee recommended, after thorough study, that the following benefits be provided with reasonable premium rates to this special low income group over sixty-five:

1. Surgery wherever performed; anesthesia; in-hospital care for 120 days; diagnostic x-ray (either in the hospital or out-patient department or the doctor's office if hospitalization follows); and radiation therapy.

2. Income ceilings. It is suggested that income ceilings could be flexible according to economic level of the area served, with the possible range of $1,500 single and $2,500 husband and wife, or $2,000 single and $3,000 for combined incomes of husband and wife.

In determining a level of compensation for services rendered which would produce a rate or premium charge within the means of these people, the actuarial committee used a relative value schedule similar to that in effect in California and other areas, placing $1.50 unit value on surgery and anesthesia. In-hospital medical care could be $5 for the first day, $3 for the next nineteen days and $2 per day for the remainder of the 120 days. X-ray and radium therapy is to be rated on the basis of $2 per unit value. These benefits could be supplied to this special limited group of people for very little over $2 per month per person. These people now constitute the medical profession's category of patients from whom very little compensation is expected and in many cases—none is received. This group can be converted from a dependent, hopeless, semi-charity group into a respected, self sufficient and independent section of society when and if these policies are established and sold and if the doctors will respect them. It is evident that with a degree of co-operation, faith and confidence and the establishment of a new and independent Blue Shield policy and contract, the medical care of this one-third of people over sixty-five can be accomplished.

It *must be,* to retain medical independence.

HOSPITAL CARE FOR THE AGED

The same 30 per cent of persons over sixty-five with inadequate resources must have provisions for hospital care. This problem will be a severe one with hospital costs constantly increasing. Developing of hospital service for this group is a challenging problem. It may be necessary to cut down the number of days covered, it may be possible that the utilization rate may be reduced or it may be necessary to develop a new concept of hospitalization. In Philadelphia, two or three years ago, the suggestion was made that some facilities be built whose function would be custodial or hall nursing care as soon as the "convalescent" patient has passed through his first few days of acute intensive care and could be moved. The cost of care could be reduced materially, and possibly brought to an average of under $10 a day instead of the average of $30 a day we are now paying in Michigan. Many of our men are thinking on this line. Gaylord S. Bates, M.D., of Dearborn, in his talk to the Secretaries and Public Relations Conference on January 31, offered this suggestion, and it was offered editorially in these columns about three or four years ago referring to the medical center to be developed in Detroit occupying 236 acres of land in the area of the four big hospitals.

Our hospitals are crowded. Internists and surgeons have difficulty admitting patients who are desperately ill and need the exquisite care which is being provided on our $30 rate. Many of the beds in the hospitals are occupied by patients who

could just as well be in a recovery ward where the nursing care is very much reduced, where the work is primarily custodial and waiting for the patient's sufficient recovery to be discharged. Such care and facilities are not now readily available but could be provided under certain stimulation.

The medical profession and Blue Shield have plans projected for, and *can* discharge its functions and responsibility in caring for these limited income senior citizens, approximately one-third of the old age population. Hospitalization, however, is a very much different problem. It might result in a special limited Blue Cross contract recognizing and using nursing or convalescent facilities after the first few high service days.

In the opinion of many of our medical statesmen, this problem must be solved in a very short time, else other interests and forces will take over the distribution of medical and hospital care and not limit it to old age. Labor organizations are agitating for their own dispensation of health care. Some have stepped into the field and others are threatening. The Federal Congress is also a hot bed. Congressman Forand is the second ranking man on his committee and his bill has been rewritten and introduced for the second time. Other bills to accomplish this same purpose have also been introduced. These would extend the health service benefit to give hospital and surgical care to all persons over sixty-five or all persons who are receiving social security benefits.

On February 16, Congressman Dingell and Senator Murray re-introduced their bill which has been before Congress for so many years. They have changed it slightly in order to place it in special committees in both House and Senate on which they are well ranking members. This time the bill is not a tax bill but is an assessment and a deduction from wages and salaries, and still is compulsory. How it will affect the self-employed, we do not know, but for the employed person, it is "compulsory health insurance" which will be operated by politicians, bureaucrats, and distinctly not by the doctors.

The medical profession and the hospitals *must meet this challenge before the elections of 1960, else it will be too late.* Labor is demanding that doctors be put on a salary basis. If the government steps into the picture, it will no doubt use the same formula as is now being done for the military forces.

Most of us would be hirelings.

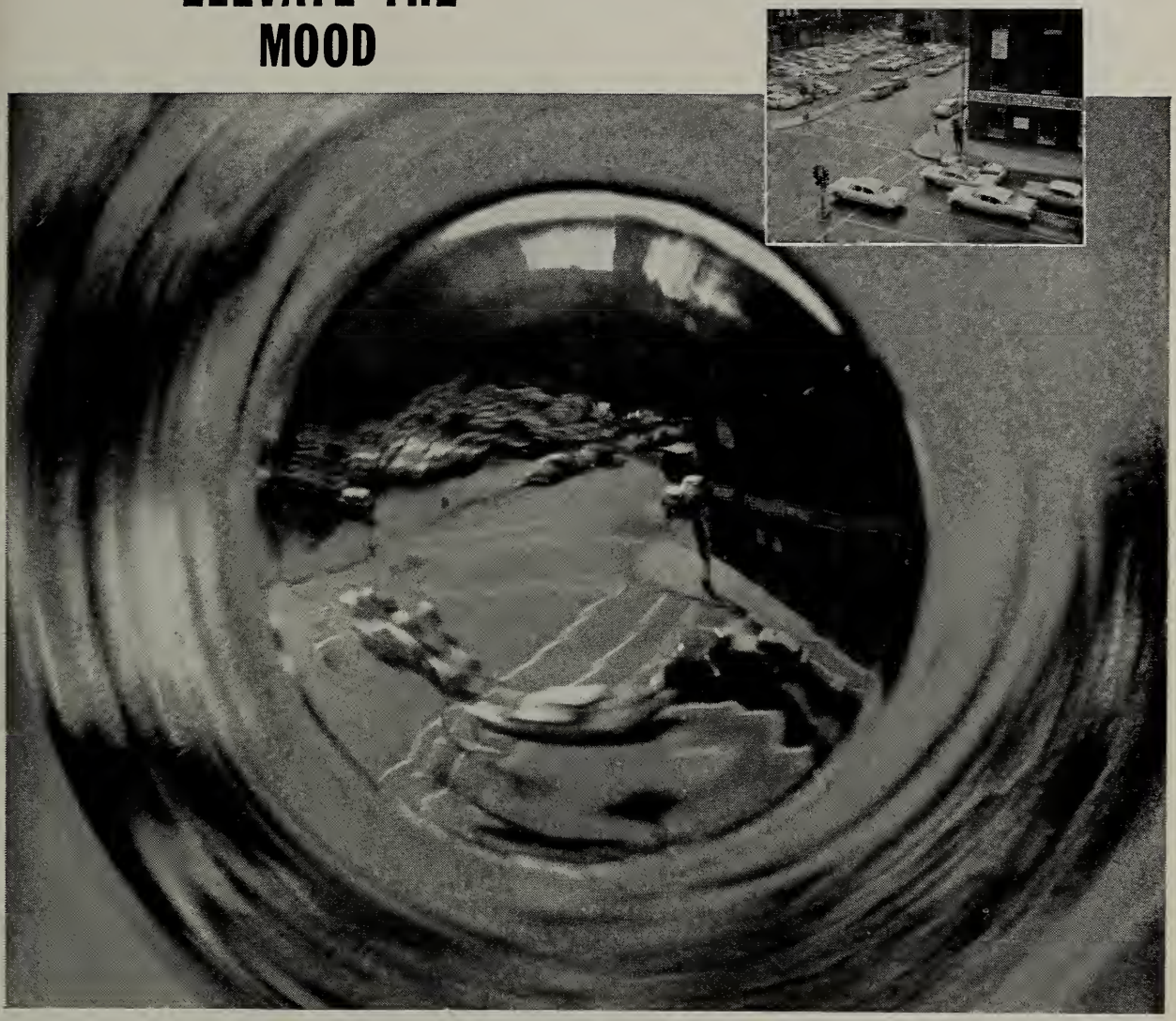
COST PER MEMBER—$56.84!

Occasionally, the editor receives comments or criticisms about the advertising in THE JOURNAL of the Michigan State Medical Society, sometimes questioning the amount and proportion to text material, occasionally about some particular advertisement or some type of advertising. Recently, we had protests from librarians who wished to bind the journals but remove the advertising. In the early years, THE JOURNAL confined its advertising to front and back pages and the text to other pages, so they could easily be separated. Experience shows that our advertisers prefer special pages facing certain material, or next to certain text material. Several years ago, THE JOURNAL began interspersing Society and text material, committees and general interest material, among the advertising pages. We have found this very satisfactory to our advertisers and probably not objectionable to our readers.

A recent letter, however, prompted us to investigate our advertising program. Some advertisers wish to put in colored insert pages which they supply to us already printed and for which they pay the two-page (or four-page) rate. Others request certain favored places for which they pay premiums. We found that for the year 1958, our total cost of printing THE JOURNAL, including editing and other expense, was $125,429.02. Of our yearly dues, the small sum of $1.50 is assigned to THE JOURNAL. Other than this $1.50 per person, the only income of THE JOURNAL is received from the advertisers, from some subscribers and the very small profit made on reprints.

Last year, there was a small profit, enough nearly to equalize the amount received from dues. How much has advertising been worth to us? We figured that out. If we had carried no advertising, the cost last year would have been *$56.84 for each and every member,* and we doubt if too many members would have willingly accepted that amount of increased dues or paid it in any other form. Our advertisers are willing to pay this amount for the benefit they receive, and we are grateful to them because of their willingness to co-operate. By the doctors' patronage to our advertisers, our JOURNAL (Michigan's medium of scientific information) is allowed to continue. We thank you, advertisers, and we thank you, readers.

CONTROL VERTIGO, DIZZINESS... AND ELEVATE THE MOOD



with **Dramamine-*D***®

brand of dimenhydrinate with dextro-amphetamine sulfate

"Disturbances of balance resulting from vestibular disorders have long been known to lead to severe anxiety."*

Vertigo—whether of organic or functional origin—tends to leave depression in its wake. Dramamine-*D* is a therapeutic combination designed for treatment of the entire vertigo-reaction syndrome. Each tablet contains dimenhydrinate (50 mg.) to control dizziness, and dextro-amphetamine sulfate (5 mg.) to elevate the mood.

*Pratt, R. T. C., and McKenzie, W.: Anxiety States Following Vestibular Disorders, Lancet *2*:347 (Aug. 16) 1958.

Dramamine® available as tablets, ampuls, liquid, suppositories

Research in the Service of Medicine **SEARLE**

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

1960 WHITE HOUSE CONFERENCE ON CHILDREN AND YOUTH

In March, 1960, for the sixth time in fifty years, representatives from all the states and territories will meet at the request of the President of the United States for a White House Conference on Children and Youth. Initiated in 1909 by President Theodore Roosevelt, these conferences have all been based on the conviction that children are a nation's chief asset. Each conference has explored ways in which the welfare of children can be advanced.

For example, prior to 1909 poverty was very much on the conscience of the nation. Thus, the first conference was on the theme, "Care of Dependent Children." Out of this conference grew a demand for congressional action in behalf of children and from this the Children's Bureau was established. With its help, various states created divisions of maternal and child health in newly formed departments of public health.

By 1919, European countries had set an example in improving laws for the protection of children that the United States could not ignore. So the second conference had as its focus, "Child Welfare Standards." This conference led to the stabiliziation of child welfare laws.

By 1930, a considerable amount of research had been done on child development and health care. This research, however, had not yet been translated into improved practices. Thus, the 1930 conference produced the most comprehensive statement ever written on the needs of children.

By 1940, depression and dictatorship were tremendous threats to children's well-being and so the special needs of children in a democracy were highlighted.

By 1950, a growing interest in psychology made a careful appraisal of its role in improving the well-being of a child a natural focus.

The first three conferences created an awareness of the needs of children. The fourth conference recommended the better training of doctors, nurses and other professional workers, as well as public appropriations and private grants for research projects for the improvement of the care of mothers and children. The fifth conference resulted in sixty-seven recommendations on the health, education and welfare of children, many of which have been carried out on both state and local levels. In addition, further research in many phases of child life received great impetus.

The 1960 conference can make a solid contribution to the well-being of children and young people in this country and in the world. The governors of the states, at the request of the President, have appointed committees to initiate local activities and prepare reports on matters bearing on the welfare of children in each state. Thousands of people from state and local governmental agencies and organizations have already spent months in preparing materials about children. The Interdepartmental Staff on Children and Youth representing all state departments serving children has prepared a fact-book on the child population in Michigan and a report of services available from the state and local governmental agencies. This fact-book will serve as resource material for eleven regional meetings to be held this spring under the leadership of the Michigan Youth Commission. From these meetings will come data on Michigan children and youth to be presented at the White House Conference.

The 1960 conference comes at a critical time in our history. The tremendous baby boom of the past decade has resulted in many new problems. The next generation must have more intensive training, especially in planning for parenthood, and greater technical knowledge and proficiency than any previous generation. Our children will live and will continue to live in a world of rapid change. Because the health and welfare of children is the major responsibility of parents and because health guidance from the prenatal period through adolescence is given primarily by physicians, it is hoped that practicing physicians will actively participate in planning for the 1960 White House Conference through the eleven regional conferences.

In his initial communication concerning the 1960 conference, President Dwight D. Eisenhower said:

> "The rapidly changing times in which we live and the increasingly fast pace of change make it incumbent on us to do everything we can to plan ahead and to see that we prepare today's children well for life in tomorrow's world."

The focus of the conference will be on "opportunities for children and youth to realize their full potential for creative life in freedom and dignity." Certainly, optimum health throughout childhood based on good prenatal care and health supervision by the family physician or pediatrician is essential in preparing "today's children well for life in tomorrow's world."

IRON DEFICIENCY IN PREGNANCY

Intramuscular iron is effective in iron-deficiency anemia. At times it is most definitely indicated and should be the treatment of choice; generally speaking, if the patient does not respond it is not the fault of the drug but an error in diagnosis. Laboratory tests necessary to establish the etiology of the anemia are neither costly, time-consuming, nor painful. Imferon has a definite place in modern anemia therapy.—McClanahan, Henderson, Gready: Intramuscular iron therapy in anemia of pregnancy. *Obstetrics and Gynecology*, 12:439-446, 1958.



. . . and one to grow on

A tiny tablet of REDISOL to stimulate the appetite — to help in the intake of food for growth.

REDISOL is crystalline vitamin B_{12}, an essential vitamin for growth and the fundamental metabolic processes.

Ideal for the growing child, the REDISOL tablet dissolves instantly on contact in the mouth, on food or in liquids.

Packaged in bottles hermetically sealed to keep the moisture out and to retain vitamin potency in 25 and 50 mcg. strengths, bottles of 36 and 100 — in 100 mcg. strength, bottles of 36, and in 250 mcg. strength, vials of 12.

Also available as a pleasant-tasting cherry-flavored elixir (5 mcg. per 5-cc. teaspoonful) and as REDISOL injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

REDISOL®

cyanocobalamin, Crystalline Vitamin B_{12}

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

REDISOL IS A TRADEMARK OF MERCK & CO., INC.



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

In Memoriam

RAYMOND B. BAER, M.D., fifty-nine, Detroit physician, died February 7, 1959. Chief of Obstetrics and Gynecology at Jennings Memorial Hospital, Detroit, for the last twenty years, Doctor Baer graduated from the University of Chicago's medical school in 1930. He interned at Harper Hospital and served his residency at Receiving and Herman Kiefer Hospitals.

Doctor Baer had been an outstanding football player in his high school and college days and received a degree in civil engineering from Pennsylvania State College before undertaking his medical career.

He was a member of the Michigan State Society of Obstetrics and Gynecology, a diplomate of the American Board of Obstetrics and Gynecology and a Fellow of the American College of Surgeons.

In addition he held memberships in the Detroit Boat Club, the University Club and the Grosse Pointe Yacht Club.

WILLIAM J. CASSIDY, M.D., seventy-eight, Detroit, died February 11, 1959. Born in Tilbury, Ontario, he was educated in the intermediate schools and the Chatham Collegiate Institute. Doctor Cassidy studied pharmacy at the Ontario College of Pharmacy; after twelve years as a druggist, he studied dentistry for one year, after which he entered the Detroit College of Medicine (now Wayne State University College of Medicine) where he received his M.D. degree in 1908.

Doctor Cassidy interned at Harper Hospital, Detroit, and was a Junior Surgeon there from 1910 to 1924. He was an Associate Professor of Clinical Surgery at Wayne State University and a member of the Radiological Society of North America.

In 1934-35 Doctor Cassidy was President of the Wayne County Medical Society and in 1948 served as President of the Detroit Academy of Surgery.

JOHN E. COOPER, M.D., eighty-two, Battle Creek, died February 12, 1959. Doctor Cooper was born in Hutchinson, Kansas. He moved to Battle Creek in 1898 when he enrolled at the old American Medical Missionary College from which he graduated in 1902.

In 1913, he joined the late John Harvey Kellogg, M.D., at the Sanatorium Hospital, where he directed the obstetrical ward for many years. In 1932, he entered private practice.

In 1942, Doctor Cooper was President of the Calhoun County Medical Society. He was a Fellow of the American College of Surgeons and was listed in Who's Who in America. His avocation was his religious activities in the Seventh-Day Adventist Church.

(Continued on Page 634)



maintenance therapy is still fundamental treatment

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.[1,2,3]

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid. In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. *257*:278 (Aug.) 1957.

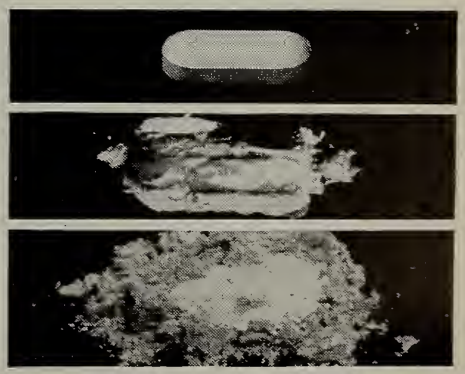
Buffered Pabirin® *Tablets*

Each tablet contains:

Acetylsalicylic acid (5 gr.)	300 mg.
Para-aminobenzoic acid (5 gr.)	300 mg.
Ascorbic acid	50 mg.
Dried aluminum hydroxide gel	100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.



Photographs show 2-stage Tandem Release disintegration.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

(Continued from Page 632)

HUGH WESLEY HARRISON, M.D., fifty-eight, Detroit, died February 3, 1959. A lifelong resident of Detroit, Doctor Harrison had been medical director of the Aluminum Company of America for thirty-six years.

He was a staff member of St. Joseph Mercy Hospital, where he had been a board member and staff treasurer. Doctor Harrison was also a member of Oriental Lodge 240, F&AM, Detroit Consistory, Moslem Temple, the Detroit Yacht Club and the American Legion.

GEORGE R. LANDY, M.D., fifty-two, Lansing, died February 6, 1959. Doctor Landy was born in Barker, New York, and graduated from the University of Michigan in 1933. He had been a clinic physician at the Ingham County Health Center for the past ten years.

He was a member of the Michigan Public Health Association and the Christ Lutheran Church of Lansing.

CLEARY N. SWANSON, M.D., sixty-one, Detroit physician, died January 21, 1959.

A graduate of Harvard Medical School, Doctor Swanson was head of the department of obstetrics and gynecology at Mt. Carmel Mercy Hospital. He was an assistant professor at Wayne State University School of Medicine and a consultant at Herman Kiefer Hospital. Doctor Swanson served as president of the Michigan Obstetrical Society and Chairman of the Midwest section of National Academy of Obstetrics and Gynecology. He was a member of Alpha Sigma Phi, Phi Beta Pi and the Detroit Boat Club.

REDUCING DIETS

"Don't cut potatoes out of your menu just because you've gained a few pounds," advises a nutrition expert at The University of Michigan. "Potatoes are a good source of vitamin C and no more fattening than oranges."

Adelia M. Beeuwkes, associate professor of nutrition at the U-M School of Public Health, recently explained that one medium-sized baked potato has about the same number of calories as a large apple or orange. half a grapefruit or a serving of peas.

"And, this same potato contains one-third of a person's daily requirement for vitamin C, essential for growth, development and health."

In terms of cost and food value the potato is one of the best investments you can make, Miss Beeuwkes stated. "Yet, the first thing an overweight person takes out of his diet is the potato."

A decline in the use of potatoes in the last half-century is partly due to the greater availability of fresh fruits. "Citrus foods are good," Miss Beeuwkes said, "but they have been stressed to the point where we no longer appreciate other sources of vitamin C.

"It is regrettable that potatoes have lost their popularity. As a source of vitamin C as well as other valuable nutrients, they deserve a more prominent place in our diet."

Say you saw it in the Journal of the Michigan State Medical Society



waterloo for an ulcer...

Napoleon exhibited ulcer symptoms through most of his adult life, yet he scorned medication for his everlasting "spasms of nervous origin." He ignored his infirmities with violent naïveté despite an intense interest in medical science. Thus, the classic hand-in-coat pose may have been the result of his paroxysms of gastric pain that sliced "like the stab of a penknife."

When your patient is besieged with an ulcer, Robins provides you with an armamentarium sufficient to repel it.

frontal assault—If your tactics dictate Local Action, try ROBALATE,® which is dihydroxy aluminum aminoacetate (0.5 Gm. per tablet or 5 cc.), an antacid of definitely superior efficacy.

encirclement – If you prefer to approach the ulcer Systemically, prescribe DONNATAL,® the anticholinergic-antispasmodic-sedative with the time-tested *natural* belladonna alkaloids and phenobarbital, a veteran campaigner without peer. FORMULA: hyoscyamine sulfate, 0.1037 mg.; atropine sulfate, 0.0194 mg.; hyoscine hydrobromide, 0.0065 mg.; and phenobarbital (¼ gr.), 16.2 mg.

multi-pronged attack – If you relish the strategy of combining antacid and antispasmodic-anticholinergic effects, use DONNALATE.® It combines one-half of a DONNATAL tablet with one ROBALATE, ideal allies for comprehensive ulcer therapy.

Victory will be yours.

A. H. ROBINS CO., INC. • RICHMOND, VA.

DONNALATE®

Robins



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

Legal Opinion

Dear Dr. Blank:

At the request of The Council of the Michigan State Medical Society, I have given consideration to the inquiries contained in your recent letter. You have submitted two questions with respect to the legal responsibility involved in the removal or disclosure of hospital records, the first of which reads as follows:

> "A doctor admits a patient to the hospital for physical examination, laboratory tests including roentgenograms and later the physician demands the medical records, the laboratory reports, the roentgenograms and also the report of the roentgenologist on x-rays so that they may be presented to a compensation commission. Apparently the patient is originally ordered to be examined by this doctor by an insurance company. The question is, "can these records be released to the doctor without any additional patient's authorization?"

If I understand correctly the foregoing inquiry, it refers to the situation where a doctor, without patient authorization, seeks to remove the entire hospital records (including those portions made by himself as well as those portions made by others) and submit them to a compensation commission. It is my opinion that such procedure would be unauthorized and dangerous. Basically, the hospital records are the property of the hospital. More important, however, than any rights based purely upon ownership, is the patient's right to privacy and the right to have his records treated as confidential.

In my opinion, the hospital records should never be permitted to be removed from the hospital and submitted to the inspection of others except with the consent and authorization of the patient or under subpoena issued by a court or body having the power of subpoena.

The second question contained in your letter is phrased as follows:

> "The report of a Medical Record referred to other insurances and institutions, must have both the doctor and the patient sign for their release from the hospital?"

I interpret this question to be an inquiry as to whether both the doctor and the patient must authorize the removal of the hospital records and their submission to others under the circumstances referred to generally under question 1. If my interpretation of this question is correct, it is my opinion that it is not necessary to obtain authorization from the doctor. In any case, however, where the doctor might have reason to object to the voluntary production and submission of records to a court or commission, even with patient's consent, the hospital would be well advised to insist that the records be subpoenaed by a court or body having subpoena powers in which case there would be opportunity for any question of admissibility or propriety of disclosure to be passed upon by the court or body to which they were submitted.

I trust that the foregoing answers your inquiries but if, through misinterpretation on my part, your questions are not fully answered, please feel free to ask further clarification. I may add that you will find a quite extensive and interesting discussion of the whole broad subject of the ownership of and access to hospital records in *The Journal of the American Medical Association* for February 15, 1958, on page 796. You may find this generally interesting and informative.

Sincerely yours,
LESTER P. DODD,
Legal Counsel

1601 Dime Building
Detroit 26, Michigan

new for total management of itching,[1,2] inflamed,[3,4] infected[5,6] skin lesions



Dermatitis repens [with staph and monilia] 7 weeks duration

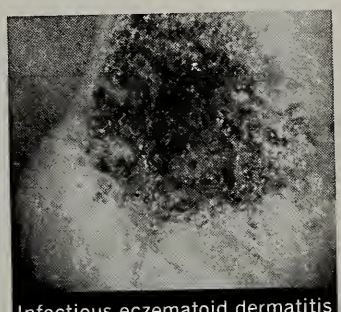


Cleared in 5 days

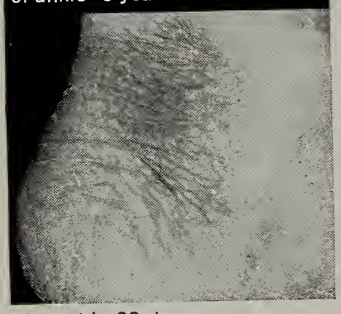
Mycolog ointment

Kenalog, Spectrocin and Mycostatin in Plastibase

antipruritic/anti-inflammatory/antibacterial/antifungal



Infectious eczematoid dermatitis of ankle—5 years duration



Cleared in 20 days

Mycolog Ointment — containing the new superior topical corticoid Kenalog — reduces inflammation,[3,4] relieves itching,[1,2] and combats or prevents bacterial, monilial and mixed infections.[5-7] It is extremely well tolerated, and assures a rapid, decisive clinical response for most infected dermatoses.

> "Thirty-one of 38 patients . . . obtained excellent or good control of dermatological lesions . . . [Mycolog] was highly effective, particularly in the management of mixed infections. Several recalcitrant eruptions which had not responded to previous therapy were remarkably responsive to the daily application of this preparation over periods of 2 to 3 weeks."[5]

For total management of itching, inflamed, infected skin lesions, Mycolog contains triamcinolone acetonide, an outstanding new topical corticoid for prompt, effective relief of itching, burning and inflammation[1-4] — neomycin and gramicidin for powerful antibacterial action[7] — and nystatin for treating or preventing Candida (Monilia) albicans infections.[8,9]

Application: Apply 2 to 3 times daily. Supply: 5 Gm. and 15 Gm. tubes. Each gram supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base, 0.25 mg. gramicidin, and 100,000 units nystatin in PLASTIBASE.

References: 1. Shelmire, J.B., Jr.: Monographs on Therapy 3:164 (Nov.) 1958. • 2. Nix, T.E., Jr., and Derbes, V.J.: Monographs on Therapy 3:123 (Nov.) 1958. • 3. Robinson, R.C.V.: Bull. School of Med., U. Maryland 43:54 (July) 1958. • 4. Sternberg, T.H.: Newcomer, V.D., and Reisner, R.M.: Monographs on Therapy 3:115 (Nov.) 1958. • 5. Clark, R.F., and Hallett, J.J.: Monographs on Therapy, 3:153 (Nov.) 1958. • 6. Smith J.G., Jr.; Zawisza, R.J., and Blank, H.: Monographs on Therapy, 3:111 (Nov.) 1958. • 7. Monographs on Therapy, 3:137 (Nov.) 1958. • 8. Howell, C.M., Jr.: North Carolina M.J. 19:449 (Oct.) 1958. • 9. Bereston, E.S.: South. M.J. 50:547 (April) 1957.

And whatever the topical corticoid need, a suitable Squibb formulation is available—Kenalog-S Lotion—7½ cc. plastic squeeze bottles. Each cc. supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base and 0.25 mg. gramicidin. Kenalog Cream, 0.1%—5 Gm. and 15 Gm. tubes. Kenalog Lotion, 0.1%—15 cc. plastic squeeze bottles. Kenalog Ointment, 0.1%—5 Gm. and 15 Gm. tubes.

RELIABILITY · INTEGRITY · PRESTIGE · SQUIBB

SQUIBB

Squibb Quality — the Priceless Ingredient

'SPECTROCIN'®, 'MYCOSTATIN'®, 'PLASTIBASE'®, 'MYCOLOG' AND 'KENALOG' ARE SQUIBB TRADEMARKS



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

C. Thomas Flotte, M.D., Ann Arbor, is the author of an article entitled "The Medical Management of Mass Casualties," published in *G.P.,* February, 1959.

Conrad R. Lam, M.D., and Geoffrey L. Brinkman, M.D., Detroit, are the authors of an article entitled "Indications and Results in the Surgical Treatment of Pectus Excavatum," read before the Section on Pediatrics at the 107th Annual Meeting of the American Medical Association, San Francisco, June, 1958, and published in *AMA Archives of Surgery,* February, 1959.

Martin J. Urist, M.D., South Haven, is the author of an article entitled "The So-Called A and U Syndromes," published in the *American Journal of Ophthalmology,* December, 1958.

Harry M. Nelson, M.D., and Padraig Carney, M.D., Detroit, are authors of an original article, "Ovarian Tumors and Pregnancy," which appeared in *Clinical Medicine,* January, 1959.

* * *

Louis Koren, M.D., has resigned his position as Director of the Wayne County Mental Health Clinic to become Director of the Adult Psychiatric Clinic, Harper Hospital, Detroit. Bella M. Rabinovitch, M.D., was appointed Acting Director of the Wayne County Mental Health Clinic.

* * *

Glaucoma Identification Card.—The National Medical Foundation for Eye Care was organized to give the American people reliable information about proper eye care, the distinction between the various groups who are offering various types and forms of eye care. Harold F. Falls, M.D., Ann Arbor, is Vice President.

The National Foundation, recognizing the importance of proper care of glaucoma, has issued an identification card to be used by patients. This is similar to the diabetes identification card. It will contain vital information such as the name of the patient, the ophthalmologist who diagnosed the glaucoma and prescribed for him, a copy of the prescription, and a copy of his refraction prescription, so that in case of necessity, his medication can be continued and his glasses repaired or replaced, and he not lose continuity of treatment. Since glaucoma causes about one eighth of blindness in persons over forty, carrying such a card could be a great service to glaucoma patients. Packets of the cards may be obtained by writing to the Foundation Office, 250 West 57th St., New York 19, N. Y., or to Professional Services Laboratories, North Chicago, Illinois.

* * *

Fellows of American Psychiatric Association.—The following physicians practicing psychiatry in Michigan were elected to the status of Fellow of the American Psychiatric Association during 1958: Benjamin Barenholtz, M.D.; Byron Casey, M.D.; Thomas Cross, M.D.; Willard Dickerson, M.D.; Eugene Donovan, M.D.; Saul Harrison, M.D.; Kenneth Moore, M.D.; Norman Rosenzweig, M.D.; H. Harrison Sadler, M.D.; Walworth Slenger, M.D.; Duane Sommerness, M.D.; Benjamin Stamell, M.D.; Vernon Stehman, M.D.; Fred Swartz, M.D.; Lawrence Tourkow, M.D., and Robert Yoder, M.D.

G. J. Stewart was elected to Life Memership of the American Psychiatric Association in 1958, and Judge George Bushnell was elected as Honorary Fellow of the Association in 1958.

* * *

William B. Hubbard, M.D., Flint, has devised an improved binocular, bifocal magnifier, described in the *Archives of Ophthalmology,* January, 1959.

COMING MEETINGS

The Genesee County Medical Society is holding its Fourteenth Annual Cancer Day on Wednesday, April 22, 1959, at 9:30 a.m. at Hurley Hospital, Flint, Michigan. Guest speakers are Owen H. Wangensteen, M.D., University of Minnesota; George T. Pack, M.D., Memorial Center, New York; Freddy Homburger, M.D., Tufts Medical College; Raffaele Lattes, M.D., Columbia-Presbyterian Medical Center, New York; Ulrich Henschke, M.D., Memorial Center, New York; Danely P. Slaughter, M.D., University of Illinois, Chicago.

The Association of American Physicians and Surgeons will hold its sixteenth annual meeting, April 2, 3, 4, 1959, at Fort Worth, Texas, at the Hilton Hotel.

(Continued on Page 642)

THE COVER

The cover of this Cancer Control Number was designed by the Michigan Cancer Coordinating Committee through the assistance of its member, Charles F. Arnold of Detroit, Chief Engineer of Cadillac Motor Car Company, aided by the General Motors Art Staff.

as they like it...

cherry-flavored

syrup

pediatric drops



as they need it...

ACHROMYCIN® V

Tetracycline with Citric Acid Lederle

- broad spectrum control of more than 90 per cent of antibiotic-susceptible infections seen in general practice[1]
- fast, high concentrations in body fluids and tissues
- no irreversible side effects reported, excellently tolerated
- readily miscible in water, juices, formula.

ACHROMYCIN V: 10 cc. plastic dropper bottle for precise dosage; 100 mg. per cc. (20 drops). *Dosage:* one drop per pound body weight per day.

ACHROMYCIN V Syrup: Each teaspoonful (5cc.) contains equiv. 125 mg. tetracycline HCl. Bottles of 2 and 16 fl. oz. *Dosage:* at 45 lbs., one teaspoonful 4 times daily; adjust for other weights.

1. *Based on six-month National Physicians Survey.*

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 640)

The Michigan Electroencephalographic Society will be held at Caro State Hospital for Epileptic Children at 11 a.m. on May 15. Mr. David Hellman will be the host. All who work in electroencephalography and others who are interested are cordially invited to attend.

* * *

The National Foundation, formerly The National Foundation for Infantile Paralysis, has changed its name, increased its advisory committee on professional education, and has extended its scope of service to cover any field in medical research and prevention of disease. For this year in addition to infantile paralysis, taken on arthritis and rheumatism and congenital mental health defects. They now announce scholarships, post-doctoral research fellowships, the stipends from $3,900 to $6,000 also in the clinical fields of preventive medicine, rehabilitation for physicians to study the concept and basic techniques of rehabilitation, also to provide training for physicians specializing in physical medicine and rehabilitation. Also to provide advanced training to surgeons interested in teaching or research in orthopedics. Any of these scholarships may be extended. Applications must be received before September 1 for consideration in November, and before December 1, for consideration in February, 1960. For information write to: Chief, Division of Scholarships and Fellowships, Department of Professional Education, The National Foundation, 800 Second Ave., New York 17, N. Y.

* * *



M. A. Darling, M.D.

An annual lectureship honoring Milton A. Darling, M.D., prominent Detroit obstetrician and gynecologist, was announced on February 25 by Wayne State University College of Medicine.

Announcement of the Milton A. Darling lectureship on obstetrics and gynecology was made by Charles S. Stevenson, M.D., professor and chairman of this department at Wayne's first annual "Residents' Day" dinner in the Wayne County Medical Society building.

Dr. Darling was specifically cited for his contribution to medical education through his development of the resident training program in obstetrics and gynecology at Grace Hospital.

Dr. Darling is president-elect of the Michigan State Medical Society and a past president of the Wayne County Medical Society. He joined the Grace Hospital staff in 1916. Following graduation from the University of Michigan Medical School in 1914, he interned at University Hospital for two years.

He is a diplomate of the American Board of Obstetrics and Gynecology, fellow of the American College of Surgeons, past president of the Michigan Society of Obstetricians and Gynecologists, member of the Academy of Surgery of Detroit, the Detroit Surgical Society and the Central Association of Obstetrics and Gynecology.

(Continued on Page 644)

Give me two good reasons



why Buttermilk is a dietary food!

LOW CALORIES, HIGH ESSENTIAL NUTRITION

One glass, or 1/2 pint, of plain Buttermilk (uncreamed) contains only 87 calories; a whole quart, only 350. Yet uncreamed buttermilk contains all of whole milk's complete proteins, B vitamins, and minerals. One good dietary reason!

BENEFICIAL BACTERIAL-ENZYME ACTION

For many years Buttermilk has been prescribed as an aid in promoting healthful bacterial balance in the digestive tract, especially the lower tract. Second good dietary reason!



and Borden's is extra good Buttermilk!

Making buttermilk sounds simple, but certainly isn't simple at all! Borden's Buttermilk has a deserved reputation for fresh, sweet wholesome flavor.

Borden's

MICHIGAN MILK DIVISION

(Continued from Page 642)

The American Board of Obstetrics and Gynecology, Inc., will hold examinations (Part II), oral and clinical, for all candidates at the Edgewater Beach Hotel, Chicago, Illinois, from May 8 through 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examination will be notified of their eligibility for the Part II examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1960 examinations is August 1, 1959. Candidates may submit their applications at any time before that date and are urged to do so. Address Robert L. Faulkner, M.D., Secretary-Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

Michigan Academy of Science, Arts and Letters held its meeting on March 27, 1959, at Giltner Hall, Michigan State University. A symposium on the Cell Membrane was presented. On the morning section were: Raymond H. Kahn, Department of Anatomy, University of Michigan; Maynard M. Dewey, Department of Anatomy, University of Michigan; Philipp Gerhardt, Department of Bacteriology, The University of Michigan; Bernard P. Sagik, Department of Infectious Diseases, The Upjohn Company, Kalamazoo; and John W. Rebuck, Department of Laboratories, Henry Ford Hospital, Detroit. The afternoon section was presented by Burton L. Baker, Department of Anatomy, University of Michigan; Manuel J. Gordon, Department of Dairy Husbandry, Michigan State University; James F. Hogg, Department of Biological Chemistry, The University of Michigan; Halvor N. Christensen, Dale Oxender and Prabhat Pal, Department of Biological Chemistry, The University of Michigan.

* * *

Of the fifteen Mexican medical students attending a one-month seminar sponsored by the Galen Society at the University of Michigan Medical Center, seven turned the tables on their instructors on the evening of February 20.

The University of Michigan (for "Mexico") students became instructors for the evening, while the University of Michigan (for "Michigan") instructors became students. The foreign students presented reports on clinical activities at the National University of Mexico.

Those participating were: E. Ontiveros, J. Andrade, G. Trevino, F. Dies, G. Belsasso, J. Caranza, and S. Estrada. In addition, Dr. H. Pizarro, faculty representative who accompanied the group, presented a motion picture on atrio-ventricular defects.

* * *

Dr. Cyrus C. Sturgis, professor of internal medicine in the University of Michigan Medical School, has been granted sick leave from March 1, 1959 to June 30, 1960.

* * *

Federal Aviation Agency has decided finally and conclusively to set up a strong medical department under medical direction. Its first administrative order specifies

(Continued on Page 646)



If she needs nutritional support . . . she deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

Lederle



make mine Soyalac

Provides balanced nutritional values

1. Fibre-free **HYPOALLERGENIC** formula.
2. An excellent formula for regular infant feeding.
3. An ideal food for milk allergies, eczema and problem feeding.

SOYALAC helps solve the feeding problem of prematures and infants requiring milk-free diet.

Strikingly similar to mother's milk in composition and ease of assimilation, babies thrive on SOYALAC.

Clinical data furnish evidence of SOYALAC'S value in promoting growth and development.

Protein of high biologic value is obtained from the soybean by an exclusive process.



Free Booklet and Samples

A request on your professional letterhead or prescription form will bring to you complete information, and a supply of samples. Please address the Loma Linda Food Company, Arlington, California, or Mount Vernon, Ohio.

Medical Products Division

LOMA LINDA FOOD COMPANY

ARLINGTON, CALIFORNIA • MT. VERNON, OHIO

(Continued from Page 644)

that Office of Civil Air Surgeon shall be responsible for assisting administrator in drawing up standards, rules and regulations concerning fitness of flying personnel and air traffic controllers; (b) conducting examinations; (c) taking initiative to further research in aviation medicine; (d) inaugurating a program of occupational medicine.

* * *

Social Security Amendments—(Forand).—Consideration is being given establishment of a special subcommittee of House Ways and Means Committee to hold public hearings this spring on social security amendments. Its chairman and most important figure would be Rep. Aime J. Forand (D., R.I.) He has not yet reintroduced his controversial bill on hospital and surgical benefits because it is in process of being rewritten. HEW has sent out invitations to certain national organizations to be represented to discuss a special report on provision of health services for aging population prior to its submission to House Ways and Means Committee. It will be a factual report, making no recommendations. The Congressional committee wants it as a guide in consideration of the Forand bill and similar proposals.

* * *

Adequacy of Health Care for Workers.—Details of a co-operative study to learn how adequate are health services received by unionized workers and families were revealed at a news conference in Washington recently. The principals are International Association of Machinists, U. S. Industries, Inc., Columbia University, and National Opinion Research Center. The objective: To find out how nearly 90 million Americans are faring under medical and hospital insurance programs supported wholly or in part by industry.

Financing this three-year study is the Foundation on Employe Health, Medical Care and Welfare, Inc., a joint undertaking of machinists union and U. S. Industries, Inc., which was established three years ago. Supervisor of the project is Dr. Ray E. Trussell, chairman of Columbia's School of Public Health and Administrative Medicine. Interviewing and other field work will be done by NORC (University of Chicago).

A 3,000-family sampling is contemplated. There will be 750 families in each of these types of coverage: Blue Cross-Blue Shield; indemnity type, as provided for non-operating railway workers; comprehensive medical services as provided by General Electric Company, indemnity plans of insurance companies, and the Kaiser Plan of the West Coast.

* * *

Research on Virus Diseases.—Extensive studies seeking drugs to prevent or treat virus diseases will continue at The University of Michigan School of Public Health under a March of Dimes grant of $144,010.

The project will be directed by Thomas Francis, Jr., M.D., professor of epidemiology and chairman of the Department of Epidemiology in the School of Public Health, who directed the evaluation of the national Salk polio vaccine field trials.

(Continued on Page 648)



he deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

INFO-DEX
Cancer Registry System

INFO-DEX CANCER REGISTRY SYSTEM was devised in collaboration with the STATISTICAL DEPARTMENT OF THE AMERICAN CANCER SOCIETY and meets the requirements of the AMERICAN COLLEGE OF SURGEONS.

Used in Hundreds of Hospitals

INFO-DEX records in one file information that would require 8 separate files.

INFO-DEX is economical—so easy to keep, it requires no trained personnel.

INFO-DEX is helpful in research.

INFO-DEX saves time, space and energy

This Cancer Registry System is designed for use in the small as well as large hospital—with a minimum of clerical work. It is indispensable for all hospitals who wish to comply with the requirements of the American College of Surgeons for a Cancer Registry.

Additional information and samples sent on request with no obligation.

MEDICAL CASE HISTORY BUREAU M-49
17 West 60th Street • New York 23, N. Y.

Name_____

Hospital_____

Address_____

City_____ Zone____ State_____

(Continued from Page 646)

The investigations by Dr. Francis and his associates are in three fields: the search for anti-virus drugs, study of what happens when a virus attacks a living cell and followup studies on how long and effectively Salk vaccine immunity to paralytic polio lasts.

Drugs known to kill viruses have a toxic effect on people. So the problem in anti-virus drug research is to find chemical compounds which, without themselves doing any harm to cells, will interfere with and prevent the processes by which viruses damage cells.

* * *

AMEF Grants Presented.—The record breaking 1958 AMEF fund of $1,133,654 was distributed to eighty-five medical schools at a special ceremony during the Congress on Medical Education and Licensure, February 9 at the Palmer House, Chicago. The grants were presented to Dr. John McK. Mitchell, president of the Association of American Medical Colleges by Dr. George F. Lull, president of the AMEF Board of Directors.

Of the $1,120,044 plus interest given out in grants, $505,300 was designated for the general fund and $627,957 was earmarked for particular schools. The basic grant was $6,200 for four-year schools, and $3,100 for two-year basic science schools.

* * *

Mental illness and the understanding of the mind formed the theme of a three-day conference attended by scientists from across the country in San Francisco, January 25-27, 1959. Forty investigators from various scientific fields joined forces to review their respective findings and explore the whole problem. They included leaders in the fields of biochemistry, anatomy, physiology, pharmacology, psychiatry, and psychology.

Titled "A Pharmacologic Approach to the Study of the Mind," the conference was held by the University of California School of Medicine as part of its postgraduate program for continuing medical education.

Speakers at the meeting emphasized as major points:

1. The revolutionary strides made in the past few years in the chemical treatment of mental illness;
2. The value of some of the new agents as research tools in the understanding of the mind;
3. The promise of new and more effective drugs against mental illness.

Despite these advances, however, some investigators at the conference cautioned against over-enthusiasm about the chemical treatment of mental disease.

* * *

The Third International Congress of Physical Medicine will be held in Washington, D. C., U.S.A., from August 21 through August 26, 1960. This Congress will assemble physicians and other professional personnel from all parts of the world concerned with the furtherance and scientific development of physical medicine and rehabilitation. This is the first International Congress of such character and magnitude to meet in the United States. International Congresses have been held in London in 1952, and in Copenhagen in 1956.

Papers will be presented by experts in all fields of medicine and surgery together with other aspects of rehabilitation—social, educational and vocational. Dele-

(Continued on Page 650)



they deserve

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

In the Treatment of Rheumatic Disorders Greater stability of maintenance dosage minimizes risks of hormonal imbalance

In Sterazolidin, the anti-inflammatory actions of prednisone and Butazolidin* are combined to permit lower effective dosage of each. Clinical experience has indicated that patients can be well maintained on this combination over prolonged periods with relatively low, stable dosage levels of each component, thus minimizing the problems arising from excessively high doses of corticosteroids. Other side effects have also been gratifyingly few. Antacid and spasmolytic components are contained in Sterazolidin capsules for the benefit of patients with gastric sensitivity.

Sterazolidin®: Each capsule contains prednisone 1.25 mg.; phenylbutazone 50 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

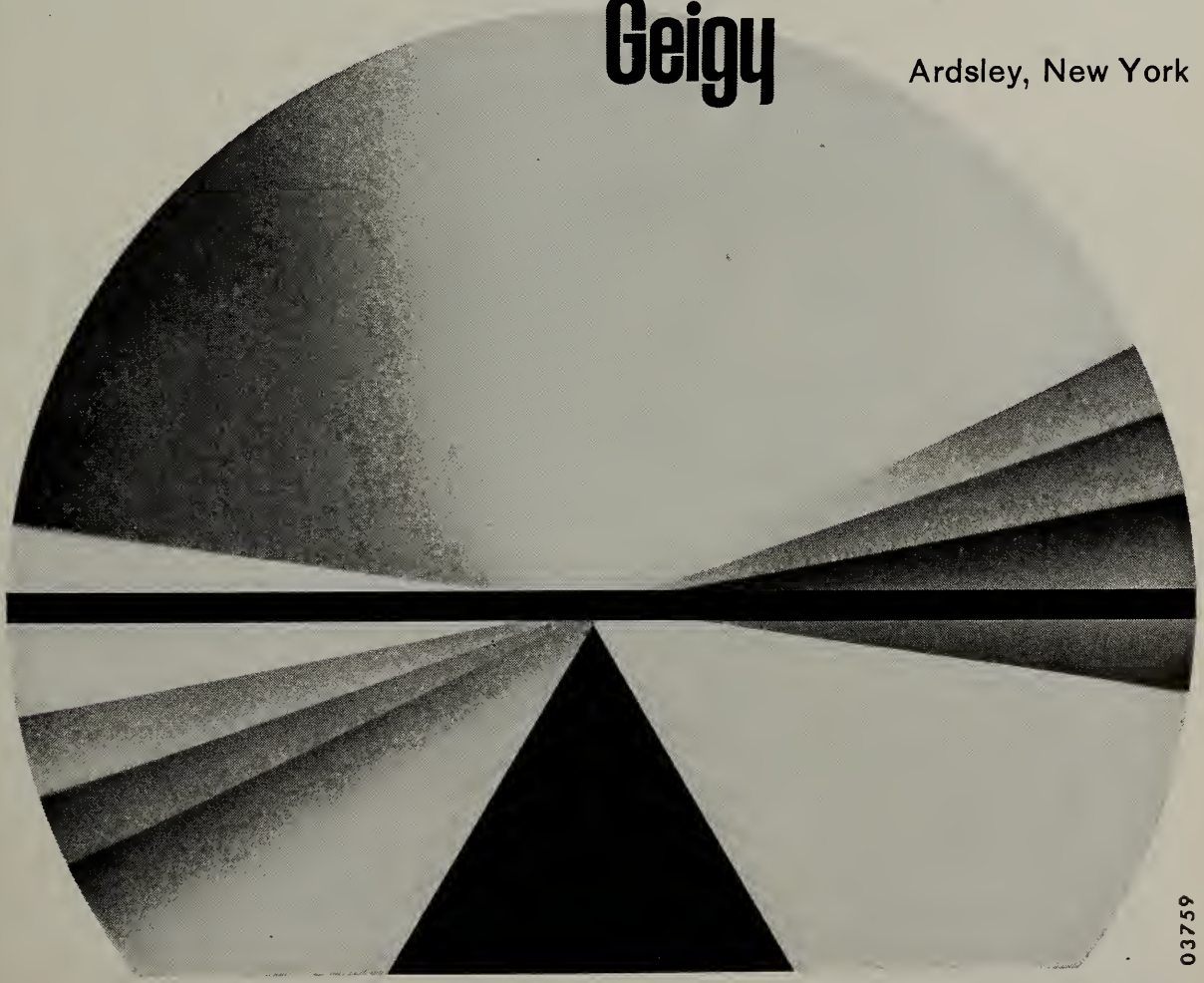
Detailed information available on request.

*Geigy's trademark for phenylbutazone—Reg. U. S. Pat. Off.

new **Sterazolidin®** Capsules

prednisone-phenylbutazone, Geigy

Geigy Ardsley, New York



03759

Say you saw it in the Journal of the Michigan State Medical Society

(Continued from Page 648)

gates are expected from 30 countries. These delegates and participants will represent their respective scientific organizations. Those in attendance from the United States will represent private and governmental facilities, agencies, and services and local state and national medical societies.

Types of diseases to be considered in the scientific sessions are:

1. Diseases of skeletal muscle
2. Arthritis, all types
3. Neuromuscular diseases
4. After-care of acute trauma to neuromuscular and musculoskeletal systems
5. Congenital defects causing physical disabilities
6. Scoliosis
7. After-care of amputations

The proceedings of the Congress containing papers by eminent authorities and reports of discussion groups and seminars will be published and distributed not only to the participants in the Congress, but to other workers in the field of physical medicine and rehabilitation. In this way, the results and benefits of the Congress will be extended to the widest possible audience.

Additional information may be obtained by writing to Congress headquarters, 30 North Michigan Avenue, Chicago 2, Illinois.

Hill-Burton Program.—Leroy E. Burney, M.D., Surgeon General of USPHS, has announced a number of appointments to the council that advises on grants in aid for construction of medical and dental research facilities. They are: E. Dwight Barnett, M.D., Director, Palo Alto-Stanford Hospital (formerly Director of Harper Hospital, Detroit, and President of Michigan Hospital Service); Robert C. Berson, M.D., Vice President, University of Alabama Medical Center; Charles E. Odegaard, M.D., President, University of Washington, and Owen H. Wangensteen, M.D., noted University of Minnesota surgeon, and Thomas B. Slick, M.D., Texas oilman. Named to a second term on the council was Thomas B. Turner, M.D., Johns Hopkins medical dean.

The Public Health Service report on the status of the Hill-Burton program on December 31, 1958, contains the following facts: 4,315 projects approved in past twelve years, with total estimated cost of $3,462,634,800 and U. S. share of $1,126,007,345 . . . 3,993 of these projects in operation or under construction, encompassing 170,040 beds, 1,073 health units and miscellaneous facilities . . . states with most projects are North Carolina (283), Georgia (234), Texas (182) and California (174).

* * *

Care of the Aged.—Senators Case (N. J.), Cooper (Ky.), Carlson (Kans.), and Beall (Md.) have developed a new approach to care of the aged. Their plan calls for appointment of fifteen members—seven by the President, four by the Vice President and four by

(Continued on Page 652)



GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B_1)	5 mg.
Riboflavin (B_2)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B_6)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as $CaHPO_4$)	157 mg.
Phosphorus (as $CaHPO_4$)	122 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Manganese (as MnO_2)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

MOTOR CARS...
are among the finest
products of MICHIGAN *industry...*
just as quality PHARMACEUTICALS
are the constant product of
MARION LABORATORIES

Marion's Oyster Shell, In Four Combinations with Vitamins and Iron

- No Leg Cramps
  - More Ionized Blood Calcium
    - Fewer Secondary Anemia Problems
  - Better Tolerated Iron Therapy
- Economical Medication

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

MARION

LABORATORIES, Inc.

2910 Grand Ave. • Kansas City, Missouri

*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

CAMBRIDGE
Cardiac Diagnostic Instruments
ASSURE THE DOCTOR OF

Universally Accepted Records, Fundamental Accuracy, Lifetime Dependability, Minimum Maintenance Expense.



"VERSA-SCRIBE" The Versatile Electrocardiograph

A completely new portable instrument with performance and versatility unsurpassed by any other direct-writing electrocardiograph. Size 5¼" x 10½" x 17", weight 20 lbs.

Multi-Channel Recorders



For physiological research, cardiac catheterization and routine electrocardiography. When used with pertinent transducers, these new Recorders provide simultaneous indication and recording of EKGs, EEGs, stethograms and other physiological phenomena. Available in Photographic Recording and Direct Writing Models.



"Simpli-Trol" Portable Model Electrocardiograph

A string galvanometer instrument, measuring 8" x 19" x 10" and weighing 30 lbs. May be arranged for heart sound and pulse recording.

Operating Room Cardioscope



Provides continuous observation of the Electrocardiogram and heart-rate during surgery. Warns of approaching cardiac stand-still. Explosion-proof. This cardioscope is a "must" for the modern Operating Room.



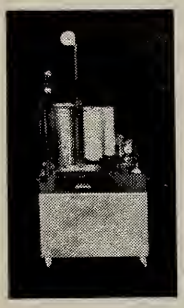
"Simpli-Scribe" Direct Writer Electrocardiograph

Provides the Cardiologist, Clinic or Hospital with a portable direct-writing Electrocardiograph of utmost usefulness and accuracy. Size 10⅜" x 10⅜" x 11": weight 28 pounds, complete with all accessories.

Audio-Visual Heart Sound Recorder



Enables simultaneous hearing, seeing and recording heart sounds. Recording may be made on magnetic discs for play-back and viewing at any time.



Pulmonary Function Tester

A completely integrated, easy-to-use instrument for the determination of such functions as Functional Residual Capacity, Tidal Volume, Vital Capacity, Total Lung Capacity, Total Breathing Capacity, Basal Metabolic Rate, etc.

CAMBRIDGE ALSO MAKES EDUCATIONAL CARDIOSCOPES, PLETHYSMOGRAPHS, ELECTROKYMOGRAPHS, RESEARCH pH METERS and instruments for measuring radioactive emission.

SEND FOR DESCRIPTIVE LITERATURE

CAMBRIDGE INSTRUMENT CO., Inc.

Detroit 2, Mich., 7410 Woodward Avenue
Oak Park, Ill., 6605 West North Avenue
Cleveland 11, Ohio, 13000 Triskett Road
New York, N. Y., 3732 Grand Central Terminal
Jenkintown, Pa., 479 Old York Road
Silver Spring, Md., 933 Gist Avenue
Pioneer Manufacturers of the Electrocardiograph

(Continued from Page 650)

the Speaker of the House. At the end of a two-year study, this group would recommend legislation needed, if any, to stimulate or supplement membership in existing private, nonprofit health care programs. Senator Case, long a strong supporter of voluntary prepayment, told his fellow Senators:

"Before undertaking important new financial responsibilities in the health field, the Federal government should assess the job being done by voluntary health insurance plans which operate within our free enterprise system, without impinging upon the traditional doctor-patient relationship."

* * *

For medical evaluation of new drugs, $626,00 is included in the Food and Drug Administration's budget. This division's workload will include inspection of some 21,500 establishments and collection of 43,000 samples for scrutiny.

* * *



The 44th annual session of the Trudeau School of Tuberculosis will be held June 8-26 at Saranac Lake, N. Y. Half of the time will be devoted to tuberculosis. Subjects such as silicosis, pulmonary fibrosis, emphysema, fungus infection, sarcoidosis, pneumonias, and intrathoracic tumors will be studied in the other half of the postgraduate course. It is sponsored by the Trudeau and Hyde foundations. Tuition is $100. Further information may be gotten by writing to the Secretary, Trudeau School of Tuberculosis, Box 500, Saranac Lake, N. Y.

* * *

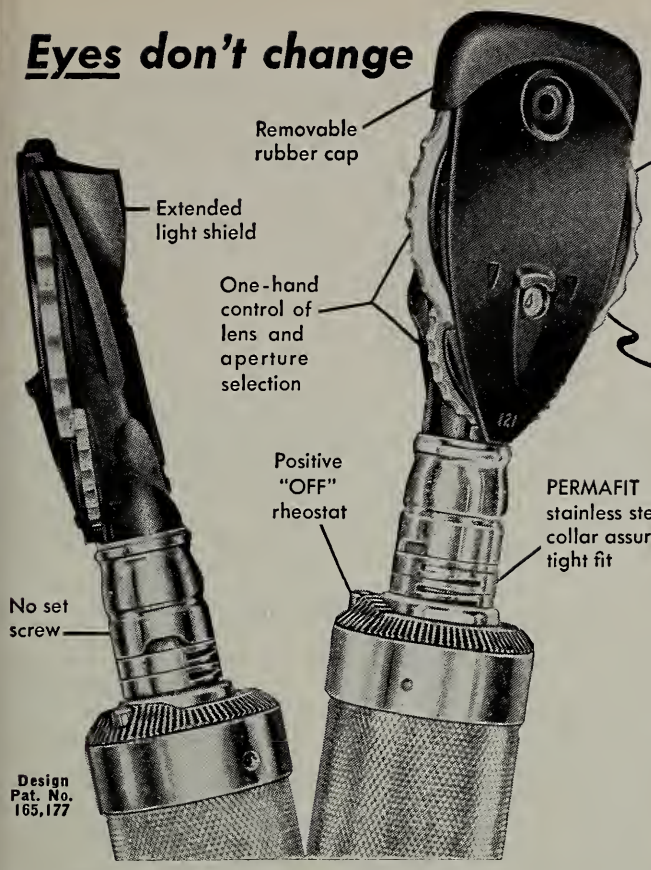
Dr. Max Karl Newman attended the meeting of the Law-Science Academy and the Law-Science Institute at the St. Charles Hotel, New Orleans, Louisiana, February 12 through February 19. He participated in the program in the following topics: "Medico-Legal Aspects of Traumatic Injuries Peculiar to Women;" "Trial Practice and Medico-Legal Trial Technique;" "Trial Practice;" "Rationale and Methodology of the Physiatrist in Aiding Rehabilitation of the Hand-Injured Patient;" "Medico-Legal Aspects of Orthopaedic Injuries of the Upper Extremity;" "Physical Medicine and Rehabilitation in Law-Science Problems;" "Its Value and Restoration of the Injured Person and in Medico-Legal Trial Techniques."

Dr. Newman was elected a Trustee of the American Academy of Law-Science at the annual meeting held February 12.

At the Hospital Infantil, Mexico City, "Responsibility of the Physiatrist in Disturbances of the Neuromusculoskeletal System with reference to Rehabilitation and Workmen's Compensation," was the subject of Dr. Newman's presentation on February 26.

(Continued on Page 654)

Eyes don't change ... *but instruments do*



brilliant, all-new
WELCH ALLYN
OPHTHALMOSCOPE
and improved battery handles

From years of research comes this new instrument, distinguished alike by its contemporary good looks, superb optical system and convenience of operation. Like all Welch Allyn instruments, it is designed for long, trouble-free life. No. 121 ophthalmoscope, head only, $38.00.

NOBLE-BLACKMER, INC.
267 W. Michigan Ave., Jackson, Mich.

The improved analog of chlorothiazide you have been hearing about is a product of CIBA research

Esidrix T.M. (hydrochlorothiazide CIBA)

for edema and hypertension

2/2678MG

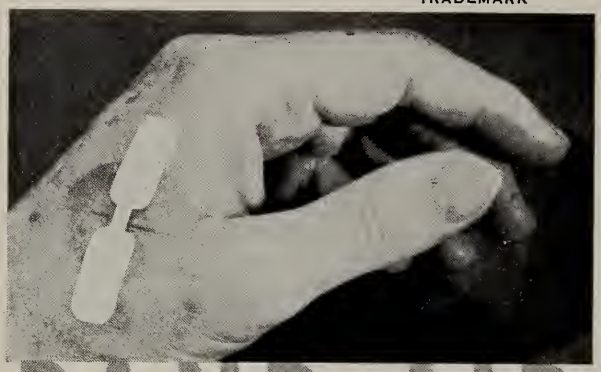


KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

(Continued from Page 652)



J. H. Maxwell, M.D.

James Hoyt Maxwell, M.D., a member of the Medical Center staff since graduation from the University of Michigan Medical School in 1927, became chairman of the Department of Otolaryngology in July, 1958.

Born in Paw Paw, Michigan, December 15, 1901, Dr. Maxwell received his B.A. degree from the University of Michigan College of Literature, Science and the Arts in 1924 and his M.D. from the Medical School three years later.

After completing his internship and residency in otolaryngology at University Hospital, he was appointed instructor in the department in 1932. He was successively promoted to Assistant Professor in 1933, Associate Professor in 1940 and Professor in 1945. He is also a member of the staff at St. Joseph Mercy Hospital in Ann Arbor.

Dr. Maxwell's research has dealt with the treatment of facial paralysis and with diseases of the parotid gland.

He holds memberships in the American Laryngological Association, American Otological Society, American Laryngological, Rhinological and Otological Society, Inc., American Academy of Ophthalmology and Otolaryngology, the Michigan State Medical Society and the American Medical Association. He is a fellow of the American College of Surgeons.

* * *

Cook County Graduate School of Medicine, Chicago, announces a two-week course in Neuromuscular Diseases of Children (with special emphasis on cerebral palsy) to be given by Meyer A. Perlstein, M.D., June 15-26. Emphasis will be placed on the practical clinical aspects of treatment and rehabilitation procedures; the course will include trips to demonstration clinics and treatment centers. The fee of $250 includes field trips and luncheon. Limited registration. For details, write John W. Neal, Registrar, 707 South Wood St., Chicago, Illinois.

* * *

American College of Chest Physicians will hold its Silver Anniversary meeting at the Ambassador Hotel, Atlantic City, June 3-7, 1959. For program and full information, write the College at 112 East Chestnut St., Chicago 11, Illinois.

* * *

Parke, Davis & Company, Detroit, is honoring the medical profession of the Nation through a new series of advertisements in *The Saturday Evening Post,* called "Great Moments in Medicine." The messages are graphically illustrated by beautiful paintings of the various periods of medicine portrayed by Robert Thom, brilliant Michigan painter.

The verbal portion of the advertisement reiterates the important role of the modern physician and his vast medical armamentarium of today compared to past times.

(Continued on Page 656)

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

Cough Control

. . . combined with non-specific protein therapy

USE AQUEOUS GUAIAFAGE

rapidly effective in all upper-respiratory infection where ventilation by expectoration is necessary

available only in 30 cc vials

Meyer and Company, Inc. **Detroit, Michigan**



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

(Continued from Page 654)

"Vaccinate for health, not just against disease or diseases," emphasized Thomas Francis, Jr., M.D., Ann Arbor, at a recent University of Michigan three-day symposium on "Polio and Beyond."

* * *

An estimated $4.8 billion in health care benefits were paid by all insuring organizations during 1958 to help the public meet the cost of accident and sickness. This surpassed the 1957 benefit payment figure by more than 14 per cent, according to the Health Insurance Institute.

* * *

The Joint Blood Council has just released the first comprehensive directory and description of blood facilities and services ever compiled in the United States. The book shows the location of facilities, the extent of their operations, how they are organized, what specific services they offer and other information of importance to doctors of medicine, hospitals and others interested in blood and its derivatives. For copies of the directory, write the Joint Blood Council, Inc., 1832 M. Street, N.W., Washington 6, D. C.

* * *

A treatment center for alcoholism was opened recently at Detroit's Receiving Hospital, under the direction of Wayne State University Department of Psychiatry, supported by the State Board of Alcoholism. Administrator of the program is James H. Graves, M.D., Assistant Professor at Wayne State University College of Medicine. "The admission rate and number of alcoholics treated at Receiving Hospital is the highest in the country except for New York's Bellevue Hospital," states the *News Letter* of WSU.

* * *

William A. Fellner, M.D., recently was appointed Medical Director of General Motors Central Office, in charge of the staff and facilities which furnish industrial medical service to the employees located in the General Motors Building and the Argonaut Building in Detroit. Dr. Fellner, a native of Benton Harbor and a graduate of the University of Michigan Medical School (1953), replaces William J. Fulton, M.D., who, after twenty-three years with General Motors, retired on February 1.

* * *

Lester P. Dodd, LL.B., MSMS Legal Counsel, is author of an original article, "The Basic Professions—Inter-Dependent," which was published recently in *The Detroit Lawyer.*

Mr. Dodd addressed a joint meeting of the Muskegon County Medical Society and the Muskegon County Bar Association in Muskegon on February 20. His subject was "Ten Easy Lessons on How to Land in Court."

* * *

The 1959 Industrial Health Conference will be held at Hotel Sherman, Chicago, April 25-May 1, 1959. For program and full information, write the Conference Secretary at 28 East Jackson Blvd., Chicago 4, Illinois.

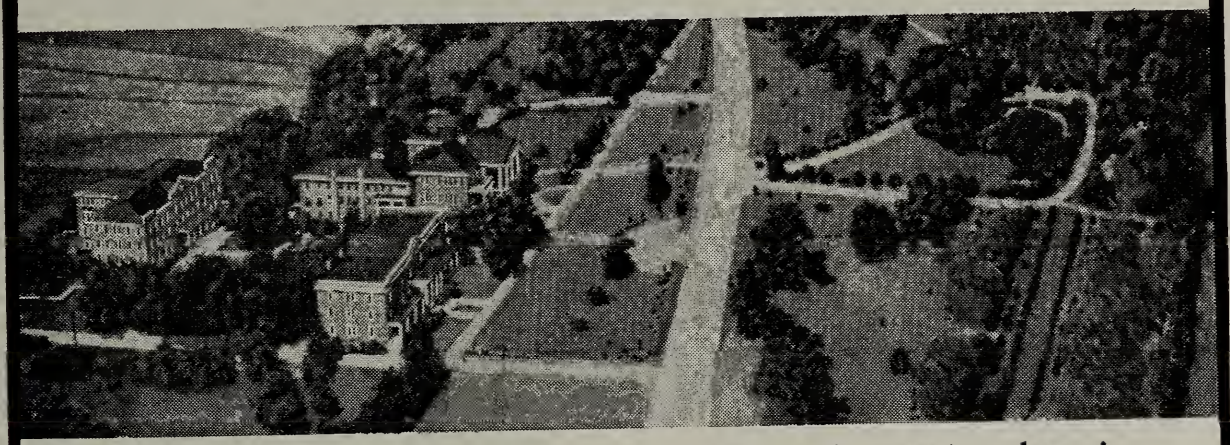
* * *

1960 White House Conference on Children and Youth. —The eleven Michigan regional chairmen, who will be in charge of regional conferences in this state, from which the Michigan report will result, are: Ogden E. Johnson, Ishpeming; Mrs. R. W. Nebel, Munising; Mrs. Harold L. Frier, Cadillac; William Marin, Cheboygan;

Say you saw it in the Journal of the Michigan State Medical Society

Nursing Care for Elders
In The Deep South

Green Acres
INC.
MILLEDGEVILLE, GA.



Owned by Doctors and operated by a registered nurse in a beautifully landscaped 20 acre estate in the mild climate of Middle Georgia. All buildings housing guests sprinkled. *Rates do not include medical care, medication, personal laundry or other extras.

Mrs. Sue H. Baldwin, R. N.
Superintendent

*Monthly Rates } Camellia Court from $150
Magnolia Hall from $210

The South's Finest Health Resort for Elders

Miss Rachel Loughridge, Mount Pleasant; Mrs. Robert W. Claytor, Grand Rapids; Arthur J. Edmunds, Flint; Mrs. Mahlon S. Sharp, East Lansing; Mrs. F. C. Burchfield, Plainwell; Mrs. Robert S. McNamara, Ann Arbor; Harold Silver, Detroit.

* * *

The Northern Tri-State Medical Association's eighty-sixth annual meeting will be held at the Schuler Hotel in Marshall, Michigan, Thursday, May 7. A splendid program includes the following speakers: Homer H. Stryker, M.D., Kalamazoo; Emerick D. Szilagyi, M.D., Detroit; William C. Baum, M.D., Ann Arbor; George W. Slagle, M.D., Battle Creek; Gardner M. Riley, Ph.D., Ann Arbor; and Frank H. Bethel, M.D., Ann Arbor. For complete program and full information, write President James E. Bailey, M.D., 292 E. Chicago Street, Coldwater, Michigan. The two Michigan representatives on The Council of the Northern Tri-State Medical Association are Charles W. Sellers, M.D., Detroit, and U. M. Adams, M.D., Marcellus.

* * *

Were you ill two or more times during the year ending June, 1958? If not, your health is well above average.

HEW states that 438 million acute illnesses involving either restricted activity or medical attention, or both, occurred among the American people during the year which ended last June. The number of such illnesses averaged 2.6 for every person in the population. Respiratory ailments accounted for 65 per cent of all the illness involving medical attention or restricted activity.

A total of $228,355 in contributions was made by the Pharmaceutical Industry in 1958 to The National Fund for Medical Education.

* * *

John B. Barnwell, M.D., formerly of Ann Arbor and member of the Washtenaw County and Michigan State Medical Societies, recently was selected by the Veterans Administration as one of the ten top career men in Federal Government for 1958-59. The honor carries with it the National Civil Service League's Annual Career Service Award, the most highly prized national award given to public employees by a citizen's organization. Dr. Barnwell spent eighteen years at the University of Michigan and was associate professor and physician in charge of the tuberculosis unit in the School of Medicine at the time he joined the VA in Washington (February, 1946) as chief of that agency's tuberculosis program. Dr. Barnwell is now the Veterans Administration's Assistant Chief Medical Director for research and education.

* * *

H. Marvin Pollard, M.D., and **Maurice H. Seevers, M.D.,** Ann Arbor, are in the Far East participating in a series of medical conferences. Dr. Pollard, under sponsorship of The Rockefeller Foundation, is in Tokyo for the fifteenth Japan Medical Congress; Dr. Seevers is also attending the Tokyo Congress to receive an honorary membership in the Japan Pharmacology Society.

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company
311 State Street S.E. Phone GL 9-9413
Grand Rapids 3, Mich.

Medical Arts Pharmacy
20-24 Sheldon S.E. Phone GL 6-9661
Grand Rapids 2, Mich.

The National Foundation recently granted $144,000 to the University of Michigan to seek chemical compounds of drugs against polio and other viruses and to investigate polio incidence in respect to the effectiveness of Salk vaccinations.

* * *



LAWRENCE REYNOLDS, M.D., and
VINCENT W. ARCHER, M.D.

Lawrence Reynolds, M.D., Detroit radiologist, was inducted as President of the American College of Radiology by Vincent W. Archer, M.D., of Charlottesville, Virginia, upon Dr. Reynolds' election as thirty-sixth President. The election took place at the annual meeting of the College in Chicago, February 6.

Dr. Reynolds is chairman of the Department of Radiology, Harper Hospital, Detroit, and long-time Editor of *The American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.*

* * *

The Ingham County Medical Society was host to the Ingham County Bar Association at a joint medico-legal meeting at the Olds Hotel, Lansing, on March 4. Close to 300 M.D.'s and lawyers attended to hear Edward J. McCormick, M.D., Toledo, Ohio, Past President of the American Medical Association, speak on "Medico-legal Relationships."

A reception in honor of Doctor McCormick, hosted by L. G. Christian, M.D., of Lansing, preceded the dinner.

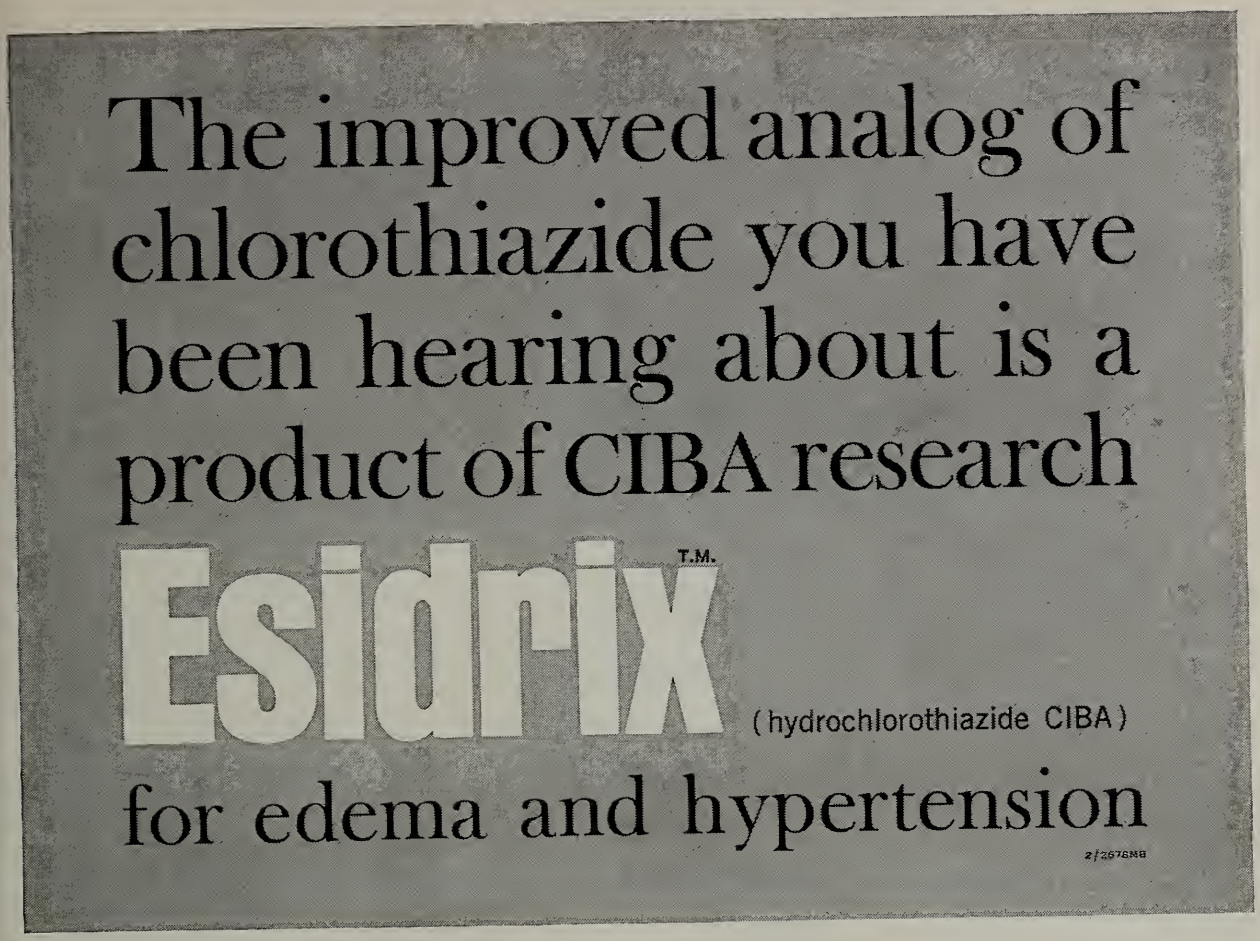
* * *

Milton A. Darling, M.D., Detroit, MSMS President-Elect, was presented the American Cancer Society's National Award for Outstanding Service on March 2 in Detroit. The presentation was made in the auditorium of the Detroit Cancer Center by Harry M. Nelson, M.D., Detroit, chairman of the Michigan Cancer Coordinating Committee and past president of the American Cancer Society.

* * *

James H. Graves, M.D., Detroit, and **Grover C. Penberthy, M.D.,** Detroit, have been appointed by Governor Williams as members of a special Inquiry Board on Organization of State Mental Health Department and

Say you saw it in the Journal of the Michigan State Medical Society



Its Hospitals. The eight-man group was appointed February 17 for a job that will keep them busy many months.

* * *

John M. Sheldon, M.D., Ann Arbor, has been invited by the Philippine Medical Association to present several lectures at its 1959 Annual Session in Manila the week of May 7. Dr. Sheldon's assembly address will be on "Asthma" and he will conduct a symposium on "Urticaria"

* * *

Three doctors of Marquette, Michigan, have offered three scholarships, each valued at $530 to qualified boys and girls who enter the school of nursing at St. Luke's Hospital in Marquette in August, 1959. The donors, members of the medical staff of the hospital, are Archie Narotzky, M.D., Matthew C. Bennett, M.D., and Warren C. Lambert, M.D.

* * *

Horace W. Porter, M.D., Secretary of the Jackson County Medical Society for the past twenty-five years, was surprised by his colleagues at the Society's January meeting when he was presented with a plaque for his outstanding services to the society. The presentation was made by G. Rex Bullen, M.D.

* * *

Max L. Lichter, M.D., Melvindale, addressed the Blue Shield Professional Relations Conference at the Drake Hotel, Chicago, February 10, on "How Our New Blue Shield Contract Was Developed."

M.D. Locations, through December 31, 1958:
Placed by Michigan Health Council—Allan S. Hubacker, M.D., Frankfort; Robert C. Rood, M.D., Ionia.
Assisted by Michigan Health Council—Gerald W. Morris, M.D., Mt. Clemens.

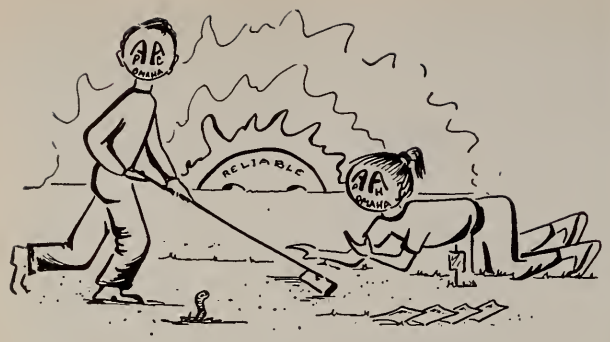
* * *

Medical Television Shows Produced by Michigan Health Council include the following:
February 1—"Nursing and Sutures"—(Film)
February 8—"Rheumatic Fever"—(Film)
February 15—"Teen-age Drinking"—(Film—"Kid Brother")
February 22—"Allergies"—(Film)

* * *

Executive Secretaries of eight Michigan county medical societies met with representatives of the MSMS Executive Office to discuss methods of improving service to doctors of medicine at an all-day meeting sponsored by MSMS at the New David Whitney House in Detroit on February 2. All phases of medical society activity were covered during round-table discussions with experts in various fields of endeavor.

William J. Burns, MSMS Executive Director, chaired the meeting at the request of L. Fernald Foster, M.D. Those present were: Mr. Howard Kahn, Bay County Medical Society; Mrs. Ruth I. Simmons, Genesee County Medical Society; Mr. John B. Kantner, Ingham County Medical Society; Mr. Roger L. Warnshuis and Mr.



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

W. G. McClimans, Kent County Medical Society; Mrs. Lucy W. Bartlett, Muskegon County Medical Society; Mrs. Mary G. Haines, Oakland County Medical Society; Mrs. Flora Mayer, Washtenaw County Medical Society, and Miss Else Kolhede, Wayne County Medical Society. Also present was Mr. J. A. Doherty, Executive Secretary of the Michigan Health Council.

Representing MSMS were: Messrs. Wm. J. Burns, Hugh W. Brenneman, Warren F. Tryloff, Jack Pardee, Dick Philleo, Robert J. Roney, Misses Helen Schulte, Jean MacDonald and Doris Jarrad.

* * *

The Adult Psychiatric Clinic, Harper Hospital, received a grant of $1200.00 from the McGregor Foundation for "Meetings or Seminars on Psychotherapy," which are open to all professional people who are interested. Louis Koren, M.D., Director of this Clinic, was the discussant at a panel on "Treatment of the Alcoholic and His Family" before the Metropolitan Detroit Chapter of the National Association of Social Workers.

* * *

The International College of Surgeons will conduct a midsummer postgraduate tour. Dr. Ross T. McIntire, executive director, will be the coordinator.

Countries to be visited are The Netherlands, Denmark, Norway, Sweden, Finland, Russia, Austria, Germany, and France. Departures will be from New York July 17 on the S.S. *Nieuw Amsterdam* or by plane July 24.

Tour participants will take in the Amsterdam meeting of the ICS, July 25-26, and the Helsinki meeting, August 8-9; spend three days in Leningrad, August 11-13, and three days in Moscow, August 15-17; and meet with the fellows of the ICS in Vienna, August 19-20.

Plane passengers will return to New York on August 27 and boat passengers will arrive September 2.

For further information, write to Dr. Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, or the International Travel Service, Inc., 119 South State Street, Chicago 3, Illinois.

NATIONAL HOSPITAL WEEK



The nation's hospitals, through the American Hospital Association, have invited their closest ally, the medical profession, to help them develop greater understanding and appreciation of their services and contributions to the American people.

This year's program, centered in a seven-day observance of National Hospital Week, May 10-16, will emphasize the theme of "More Roads to Recovery." An explanation of these "roads"—better care, improved techniques and skills, greater numbers of personnel to apply the dramatic successes of medical science—will help offset a growing myth that hospital costs are greater than the services received.

first things first

...well we keep the world's *peace* depends ...son how well we keep the world's *people.*

...reat injustices, if inequalities in health, ...oor education exist anywhere...we all face ...constant threat to peace.

...of 19 Specialized United Nations agencies ...international organizations work around ...world to eliminate these inequalities, to ...nish these basic causes of wars.

...r activities...plus the more publicized po-litical discussions...make the United Nations *mankind's last great instrument of survival.*

Be an ambassador of the United Nations in your neighborhood. Our government—officially and actively—supports the United Nations, but it is *your* good will and understanding that is its best guarantee of continued success. To receive the informative free pamphlet, "The UN in Action," write: United States Committee for the United Nations, Box 1958, Washington 13, D. C.



UN

WE BELIEVE

ADVERTISING COUNCIL · PUBLIC SERVICE ·

UNITED STATES COMMITTEE FOR THE UNITED NATIONS, BOX 1958, WASHINGTON 13, D.C.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

GYNECOLOGIC RADIOGRAPHY. By Jean Dalsace, M.D., Chief of Sterility Service, Broca Hospital, University of Paris, Paris, and J. Garcia-Calderon, M.D., Radiologist, University of Paris School of Medicine, Paris. With a Chapter on Radiography of the Breast by Charles M. Gros, M.D., and Robert Sigrist, M.D. Foreword by I. C. Rubin, M.D. Translated by Hans Lehfeldt, M.D. New York: Hoeber-Harper, 1959. Price, $8.00.

The clear, concise text of this volume makes it a joy to read. Numerous reproductions of excellent quality (both positives and negatives) are shown with adequate legends.

Techniques are briefly described including the use of oil base media, water base media, and double contrast (pneumoperitoneum with oil base media).

The authors have collected cases of their own and from other sources covering a much wider range of pathological conditions than are generally investigated by this method. They cover sterility and go on to malignancy. The majority of the cases have been proved pathologically after surgery.

This is the best and by far the most complete work on the subject the reviewer has ever seen.

The chapter on the breast is of minor significance.

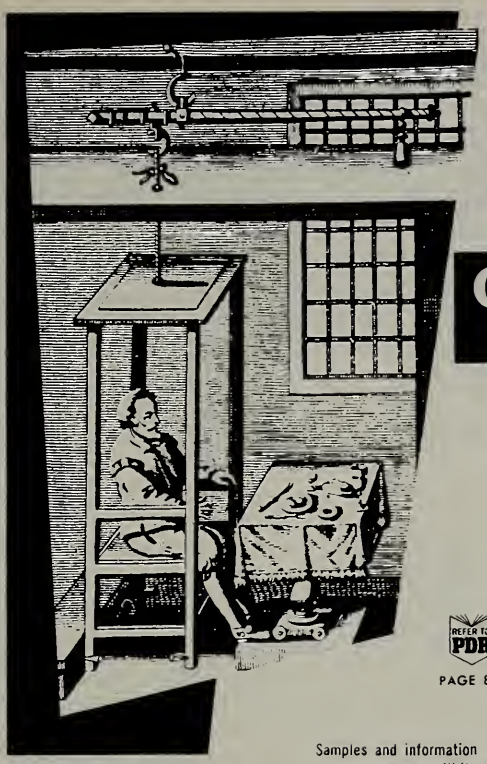
G.T.P.

TREATMENT IN INTERNAL MEDICINE. By Harold Thomas Hyman, M.D., Diplomate of the American Board of Internal Medicine; Consulting Physician, Monmouth Memorial Hospital, Long Branch, and Riverview Hospital, Red Bank, New Jersey. Formerly Assistant Professor of Pharmacology, Columbia University; Associate Attending Physician, The Mount Sinai Hospital, New York; Attending Physician, The Montefiore Hospital, New York. With a Foreword by Walter C. Alvarez, M.D. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price, $12.50.

This is a very well-organized compendium of modern treatment for both internist and generalist, exceptionally well indexed and cross referenced. It is not only useful in everyday practice, but is interesting reading, treats most concisely of the material, and is well written.

For convenience, the book is divided into ten main sections. The first five deal with infectious diseases, metabolic disturbances, neoplasms, allergies, sensitivities, poisonings and environmental hazards. Four sections following deal with disturbances of specific systems, and the final section deals with disturbances in specialty fields, such as dermatology, ear, eye, nose and throat, and urology. Each section is up to date, listing the latest drugs and modes of treatment utilizing both trade and generic names.

At appropriate places in the book are rosters of various therapeutic agents giving both generic and trade



Sanctorius on his steelyard choir in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR

PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

names, uses, dosages, and package information. Accompanying notes indicate preferred products, second choices, and possible reactions which may be encountered.

The text does not deal in generalities, but specific instructions are given for the conduct of treatment. Pertinent background material in brief form is presented where applicable.

The reviewer cannot say enough to recommend this book to every practicing physician. It should be kept within easy reach of every physician's desk. It is the best work on modern treatment that the reviewer has ever had the pleasure of using.

R.W.B.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 1, Number 4, December, 1958. Symposium on Operative Obstetrics. Edited by J. Robert Willson, M.D., and Symposium on Genital Cancer, edited by Daniel G. Morton, M.D. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1958. Price, by subscription only, $18.00 a year.

This is the fourth in a series on Clinical Obstetrics and Gynecology. This series consists of two sections: one on Operative Obstetrics; the other on Genital Cancer. The chapter on operative obstetrics is of special interest because of the detailed treatment of preventable as well as non-preventable injuries to the birth canal and allied structures. The subject of cesarean section is covered from every angle. It is concise but all inclusive.

The second part of the book detailing with genital cancer points out the most important problem in early diagnosis. The various methods of diagnosis and treatments are outlined in detail, together with the newer and more advanced findings in this field. The chapter on radioisotopes is of great interest as one of the newer approaches to a possible future cure and prevention of cancer.

Each chapter is accompanied by an excellent bibliography. This series is a step forward in summarizing the current knowledge of obstetrics and gynecology and is of special value in having such a variety of well-trained men writing the various chapters. This series should be read by all men engaged in obstetrics and gynecology.

J.R.P.

THE DOCTOR BUSINESS. By Richard Carter. Garden City, New York: Doubleday & Company, Inc., 1958. Price, $4.00.

Richard Carter and Doubleday & Company have produced a book for general sale, "The Doctor Business." The title sounds intriguing. The author is supposed to be a medical writer, but we are unable to find much that is favorable to the medical profession in this book. It emphasizes derogatory things, tells of the little boy in the 50-foot well, and implies that the charges for medical services are unjustifiable. It advocates group practice as done by the mine workers and some labor unions, but especially under a control upon which the doctor is not to have any representation. It claims Blue Shield is inadequate, also Blue Cross. The author is certainly not a friend of the AMA, though he denies any ani-

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

mosity. We have searched this book rather thoroughly, and unless our readers are willing to read page after page, searching every known and unknown source of criticism to their profession, we advise them not to buy the book and save $4.00.

CLINICAL ENDOCRINOLOGY. Second Edition. By Karl E. Paschkis, M.D., Associate Professor of Medicine, Associate Professor of Physiology, Director of the Division of Endocrine and Cancer Research, Jefferson Medical College; Chief of Endocrine Clinic, Jefferson Medical College Hospital; Attending Endocrinologist, St. Christopher's Hospital for Children, Philadelphia. Abraham E. Rakoff, M.D., Clinical Professor of Obstetric and Gynecologic Endocrinology, Jefferson Medical College; Endocrinologist to the Hospital Laboratories, Jefferson Medical College Hospital; Guest Lecturer in Gynecic Endocrinology, Department of Internal Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Abraham Cantarow, M.D., Professor of Biochemistry, Jefferson Medical College; formerly Associate Professor of Medicine, Jefferson Medical College and Assistant Physician, Jefferson Medical College Hospital, Philadelphia. 274 illustrations, 6 in full color. New York: Hoeber-Harper, 1958. Price $18.00.

This is a good standard textbook of endocrinology now in its second edition written by three distinguished members of the staff of Jefferson Medical School who have worked together and taught in this institution for a number of years.

As necessitated by rapid advances in the field, it has been completely revised, and some chapters have been completely rewritten. Much new material is presented. As in the first edition, each of the endocrine glands are covered individually, in a systematic discussion consisting of embryology, anatomy, physiology, hyperfunction and hypofunction.

The text deals practically with everyday endocrine problems. An excellent bibliography is provided, carefully selected from a host of material in the field. It is a comprehensive text for the undergraduate and provides a practical guide to treatment for the clinician as well, offering a well organized approach to diagnosis and effective therapy. It is well illustrated, attractively bound, and well printed on high grade paper.

I would recommend it for any physician or student interested in endocrinology.

R.W.B.

FIFTY YEARS OF NEUROSURGERY. A Personal Story. By Ernest Sachs, M.D. New York, Washington, Chicago, Hollywood, Toronto: Vantage Press, 1958. Price, $3.50.

For those interested in the early years of neurosurgery, this book will prove an interesting and rewarding experience. In a way, it is a brief biographical sketch of the author's own years of training and includes many anecdotes and stories of his association with the people who have made outstanding contributions to Neurology and to Neuro Surgery.

F.O.M.

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

BOOKS RECEIVED

REVIEW OF PHYSIOLOGICAL CHEMISTRY. Sixth Edition. By Harold A. Harper, Ph.D., Associate Professor of Physiological Chemistry; University of California School of Medicine, San Francisco; Biochemist Consultant to Metabolic Research Facility, U. S. Naval Hospital, Oakland; Biochemist Consultant to St. Mary's Hospital, San Francisco. Los Altos, California: Lange Medical Publications, 1957. Price, $4.50.

MEDICAL ELECTRICAL EQUIPMENT. Principles, Installation, Operation and Maintenance of Electrical Equipment Used in Hospitals and Clinics. Advisory Editor: Robert E. Molloy, M.B., F.F.A., R.C.S. Contributors: P. S. Algood, V. F. Arnold, R. H. Beckett, J. T. Burns, T. T. Diggins, B. C. Elliott, H. W. Finch, M. Garbe, G. F. Gribbin, J. Harvey, K. F. Hopkins, T. A. Marshall, B. J. Muller, E. O. Muller, D. C. Pritchard, W. Renwick, A. C. Smith, E. A. Smith, Dr. W. Summer, J. W. Taylor, F. Wilson. 238 illustrations. New York: Philosophical Library, Inc., 1958. Price, $15.00.

PHYSICAL METHODS IN PHYSIOLOGY. By W. T. Catton, M.Sc., Physiology Department, King's College, Newcastle-upon-Tyne. New York: Philosophical Library, Inc., 1958. Price, $10.00.

NEW AND UNOFFICIAL DRUGS. Containing Descriptions of Therapeutic, Prophylactic and Diagnostic Agents Evaluated by The Council on Drugs of the American Medical Association. An Annual Publication Issued Under the Direction and Supervision of the Council. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price, $3.35.

THE NEUROSES AND THEIR TREATMENT. Edited by Edward Podolsky, M.D., F.A.P.A., F.A.P.M., Department of Psychiatry, Kings County Hospital, Brooklyn, New York, Psychiatrist, Boro Medical Center, Brooklyn, New York. New York: Philosophical Library, 1959. Price, $10.00.

OUR NUCLEAR ADVENTURE. Its Possibilities and Perils. By D. G. Arnott. New York: Philosophical Library, 1959. Price, $6.00.

NEOMYCIN, ITS NATURE AND PRACTICAL APPLICATION. Selman A. Waksman, Editor. Hubert A. Lechevalier and Burton A. Waisbren, Associate Editors. Robert A. Day, Assistant Editor. Published for The Institute of Microbiology, Rutgers University. Baltimore: The Williams & Wilkins Company, 1958. Price, $5.00.

CIBA FOUNDATION SYMPOSIUM ON THE CHEMISTRY AND BIOLOGY OF MUCOPOLYSACCHARIDES. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A. 48 illustrations. Boston: Little, Brown and Company. 1958. Price, $8.50.

MODERN TREATMENT YEARBOOK 1958. A Yearbook of Diagnosis and Treatment for the General Practitioner. Edited by Sir Cecil Wakely, Bt., K.B.E., C.B., LL.D., M.Ch., F.R.C.S., F.R.S.B., F.R.S.A., F.A.C.S., F.R.A.C.S., Fellow of King's College, London; consulting Surgeon, King's College Hospital and to the Royal Navy; Senior Surgeon, Royal Masonic Hospital; Examiner in Surgery to the University of Cambridge; formerly Examiner to the Universities of London, Glasgow, Durham, Sheffield, Wales and Ireland; Editor of the *Medical Press*. Published for The Medical Press. London: Bailliere, Tindall & Cox, Ltd., 1958. The Williams & Wilkins Company, Baltimore, exclusive U. S. agents. Price, $6.00.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX ®

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Malpractice Prophylaxis

MAKING SERVICES
PERSONAL AS WELL AS
PROFESSIONAL

Specialized Service makes our doctor safer

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office
George A. Triplett and Richard K. Wind
Representatives
2405 West McNichols Road
Telephone University 2-8064

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

WANTED ASSOCIATE: Michigan growing General Practice. Fine community of 3,000, short drive from modern 80-bed hospital. Full hospital privileges can be expected, commensurate with training and ability. Easy driving distance from universities and metropolitan areas. Reply: Box 4, 606 Townsend Street, Lansing 15, Michigan.

MICHIGAN DEPARTMENT OF MENTAL HEALTH is interested in obtaining additional staff physicians who are willing to accept the challenge of providing the best medical treatment available for its charges. Excellent opportunities for energetic, talented, ambitious medical doctors. Clinical supervisory positions as well as administrative positions available to those who meet the necessary qualifications. Salary to $16,000 depending upon qualifications. Many job benefits, including sick and annual leave, retirement, longevity compensation as well as merit increases. For further information contact V. A. Stehman, M.D., Deputy Director, Cass Building, Lansing, Michigan.

FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

DIRECTOR OF INTERNAL MEDICINE—Board certified—to head department of 500-bed general hospital, located 17 miles west of downtown Detroit. Salary range $15,746-$17,066 (effective June 29, 1959). Contact: Wayne County Civil Service Commission, 628 City-County Bldg., Detroit 26, Michigan.

LOCUM TENENS WANTED—Third year resident in Internal Medicine at University Hospital would like vacation work in practice of Internal Medicine during June 1959. Write: G. Gwinup, M.D., 1461 University Terrace, Ann Arbor, Michigan.

SOUTHWESTERN MICHIGAN town of 6000, close to Chicago. $40,000 annual gross. Cost of equipment and supplies. Leaving to specialize. Will introduce. Write: Box 7, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Scanlon Morris, No. Z-420 Autoclave, exposed Type D, excellent condition. New cost $2,100; sale price $1,000. Also, hospital baby beds, new $110 each, sale $30. Methodist Children's Home Society, 26645 West Six Mile Road, Detroit 19, Michigan. KEnwood 1-1499.

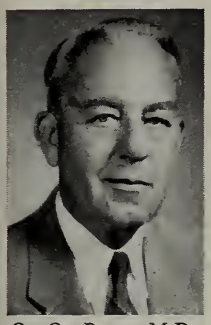
FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

WANTED—Locum Tenens, two to three weeks. Third year surgical resident. Former Michigan G.P. Michigan license. Write: B. F. Shockley, M.D., 2564 North 66th Street, Wauwatosa 13, Wisconsin.

THE JOURNAL
of the Michigan State Medical Society

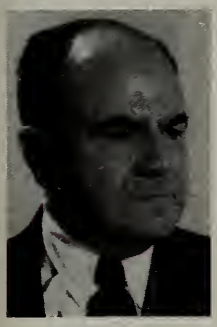
VOLUME 58 MAY, 1959 NUMBER 5

Contributors to This Issue


O. O. Beck, M.D.


E. H. Bensley, M.D.


A. H. Whittaker, M.D.


D. Adlersberg, M.D.


H. L. Bockus, M.D.


A. B. French, M.D.


R. H. Marshak, M.D.


R. J. Priest, M.D.


D. J. Sandweiss, M.D.

Table of Contents

William Beaumont and His Contribution to Medicine
Introduction — *Alfred H. Whittaker, M.D.* 735
The Beaumont Memorial Foundation — *Otto O. Beck, M.D.* 736
Alexis St. Martin — *Edward H. Bensley, M.D.* 738
Centers of Beaumont Interest — *Alfred H. Whittaker, M.D.* 742
Observations of Some Physiologists Who Preceded Beaumont — *Alfred H. Whittaker, M.D.* 751
Army Uniform of 1822 — *Alfred H. Whittaker, M.D.* 761
The Furnishings of the Beaumont Memorial — *Paul L. Grigaut* 763
A Lawyer's Dicta on Doctors — *Felix Frankfurter* 764
A 17th Century Chapel for Mackinac Island — *Eugene T. Petersen* 766
Absorption of Amino Acids from an Isolated Loop of Human Intestines — *Aline Underhill Orten, Ph.D.* 767
The Malabsorption Syndrome and Diarrhea
Introduction — *David J. Sandweiss, M.D., Moderator* 772
Pathogenesis of Primary Malabsorption Syndrome — *David Adlersberg, M.D.* 773
Absorption Tests in the Diagnosis of Intestinal Malabsorption — *Arthur B. French, M.D.* 776
Roentgen Findings in the Malabsorption Syndrome — *Richard H. Marshak, M.D.* 778
Primary Malabsorption — *Henry L. Bockus, M.D.* 781
Therapy of Primary Malabsorption — *Robert J. Priest, M.D.* 783
Questions and Answers in Discussion 786
Summary of Panel — *David J. Sandweiss, M.D.* 791
Responsibility of Hospital Trustees in the Future — *Willard C. Rappleye, M.D.* 793

Editorial 798
President's Message 799
Michigan's Department of Health 808
In Memoriam 810
News Medical 818
Communication 844
The Doctor's Library 845

It Can Be Done! *Louis M. Orr, M.D* 696
You and Your Business 706
Seal of Assurance Plan 718
Ground Broken for New MSMS Headquarters 720
Heart Beats 724
Michigan Clinical Institute 726
Michigan Association of the Professions Started 730

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 MAY, 1959 NUMBER 5

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
G. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		Term Expires
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D.....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
R. L. Novy, M.D., Detroit.....1960
W. D. Barrett, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

W. W. Babcock, M.D., Detroit.....1959
E. F. Sladek, M.D., Traverse City.....1959
O. J. Johnson, M.D., Bay City.....1959
L. R. Leader, M.D., Detroit.....1960
Wm. Bromme, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit

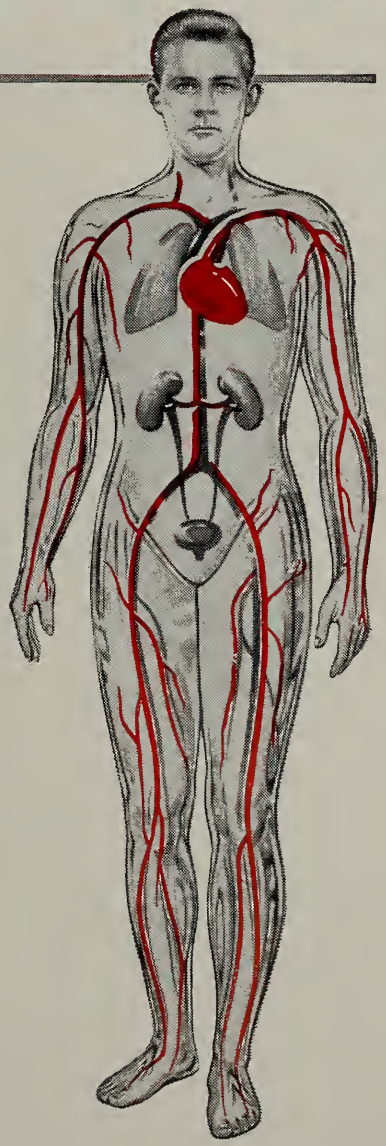
HYDRODIURIL (HYDROCHLOROTHIAZIDE)

- highly-active derivative of chlorothiazide
- qualitatively similar to DIURIL® but at least 10 to 12 times more potent by weight
- loss of potassium is clinically insignificant in the great majority of patients on normal diets

HYDRODIURIL*

NEW RELEASE

HYDROCHLOROTHIAZIDE



IN HYPERTENSION:

- effective by itself in some patients—markedly potentiates other antihypertensive agents
- provides background therapy to improve and simplify the management of all grades of hypertension
- has been reported by some investigators to have a greater antihypertensive effect in some patients than chlorothiazide at equivalent dosage
- does not lower blood pressure in normotensives
- reduces dosage requirements for other antihypertensive agents, often with concomitant reduction in their distressing side effects
- smooths out blood pressure fluctuations

precautions: It is important that the dosage be adjusted as frequently as the needs of the individual patient demand. When HYDRODIURIL is used with a ganglion blocking agent, it is mandatory to reduce the dose of the latter by at least 50 per cent, immediately upon adding HYDRODIURIL to the regimen.

HYDRODIURIL has shown no adverse effects on renal function; for this reason it may be used with excellent results even in patients for whom the organomercurials are contraindicated because of renal damage.

The excretion of potassium is much lower than that of sodium or chloride and, as is the case with DIURIL®, the loss of potassium is clinically insignificant in the great majority of patients on normal diets. If indicated, potassium loss may easily be replaced by including potassium-rich foods in the diet (orange juice, bananas, etc.).

MSD MERCK SHARP & DOHME
Division of Merck & Co., INC. Philadelphia 1, Pa.

© 1959 Merck & Co., INC.

MSMS Committee Personnel 1958-1959

RHEUMATIC FEVER CONTROL COMMITTEE

S. T. Harris, M.D., *Chairman*..27 So. Prospect, Ypsilanti
R. E. Fisher, M.D., *Vice Chairman*.....158 Capitol Ave. N.E,. Battle Creek
E. W. Adams, M.D.....517 Wildwood Ave., Jackson
R. R. Barber, M.D.....504 S. Main St., Plymouth
J. G. Bielawski, M.D.....922 Maccabees Bldg., Detroit
D. R. Boyd, M.D.....1735 Peck St., Muskegon
Carleton Dean, M.D.....252 Hollister Bldg., Lansing
D. P. Gage, M.D.....2002 Court St., Saginaw
T. B. Hill, M.D.....103 W. Main St., Lowell
C. L. Hoogerland, M.D.....303 W. Superior St., Alma
Clifford House, M.D.....1026 N. Madison St., Lapeer
J. D. Littig, M.D.....1708 Embury Rd., Kalamazoo
N. L. Matthews, M.D.....St. Luke's Hospital, Marquette
W. B. Prothro, M.D.....303 Ionia St. N.E., Grand Rapids
H. H. Riecker, M.D.....St. Joseph's Mercy Hospital, Ann Arbor
E. E. Schumacher, Jr., M.D.....833 Lake Dr. S.E., Grand Rapids
D. S. Smith, M.D.....824 Riker Bldg., Pontiac
R. M. Stow, M.D.....512 Michigan National Tower, Lansing
B. J. Sweeney, M.D.....1100 Sixth, Traverse City
R. D. Tupper, M.D.....15101 W. Seven Mile Rd., Detroit
Mr. James Gerity, Jr., *Advisor*.....Deer Park, Adrian
Mr. William A. Wiard, *Advisor*.....3919 John R, Detroit

VENEREAL DISEASE CONTROL COMMITTEE

Frank Stiles, Jr., M.D., *Chairman*.....2014 Michigan National Tower, Lansing
V. W. Cambridge, M.D.....727 N. Jefferson Ave., Saginaw
J. A. Cowan, M.D.....Michigan Dept. of Health, Lansing
A. C. Curtis, M.D.....University Hospital, Ann Arbor
R. H. Grekin, M.D.....136 E. Michigan Ave., Kalamazoo
P. J. Hettle, M.D.....Savings Bank Bldg., Marquette
H. L. Keim, M.D.....1110 David Broderick Tower, Detroit
R. I. Lurie, M.D.....2525 S. Washington Ave., Saginaw
H. C. Tellman, M.D.....706 Hackley Union Bank Bldg., Muskegon
Kornelius VanGoor, M.D.....213 Medical Arts Bldg., Grand Rapids
R. S. Breakey, M.D., *Advisor*.....520 Westmoreland, Lansing

CANCER CONTROL COMMITTEE

M. A. Darling, M.D., *Chairman*.....673 Fisher Bldg., Detroit
J. W. Hubly, M.D., *Vice Chairman*.....1407 Security National Bank Bldg., Battle Creek
R. E. Carlson, M.D.....Community Bank Bldg., Iron Mountain
E. I. Carr, M.D.....300 W. Ottawa St., Lansing
F. C. Cretsinger, M.D. ....224 E. Cedar St., Kalamazoo
M. E. Dodds, M.D.....464 S. Saginaw St., Flint
R. J. Fortner, M.D.....137 Portage St., Three Rivers
J. H. Fyvie, M.D.....202 S. Cedar St., Manistique
L. E. Holly, M.D.....878 N. Second St., Muskegon
Mr. D. E. Johnson.....211 E. Court St., Flint
H. M. Nelson, M.D.....1067 Fisher Bldg., Detroit
R. E. Olsen, M.D.....St. Joseph's Mercy Hospital, Pontiac
H. M. Pollard, M.D.....University Hospital, Ann Arbor
L. W. Reus, M.D.....226 Park Ave., Petoskey
E. M. Wright, M.D.....404 S. Warren, Saginaw
W. A. Hyland, M.D., *Advisor*.....110 E. Fulton St., Grand Rapids

MATERNAL HEALTH COMMITTEE

F. A. Jones, Jr., M.D., *Chairman*..716 Michigan National Tower, Lansing
H. A. Ott, M.D., *Vice Chairman*.....3019 N. Woodward Ave., Royal Oak
F. W. Bald, M.D.....610 Mott Foundation Bldg., Flint
C. A. Behney, M.D.....Michigan Dept. of Health, Lansing
C. M. Bell, M.D.....12-18 Monroe Ave., N.E., Grand Rapids
H. R. Brukardt, M.D.....Electric Square Bldg., Menominee
Goldie B. Corneliuson, M.D.....Michigan Dept. of Health, Lansing
A. L. Foley, M.D.....Rogers City
E. C. Galsterer, M.D.....128 S. Jefferson Ave., Saginaw
W. F. Goins, M.D.....6675 Tireman, Detroit
J. E. Harryman, M.D.....1129 Peck St., Muskegon
E. F. Hersey, M.D.....516 Whites Rd., Kalamazoo
Wm. W. Jack, M.D.....1810 Wealthy St., S.E., Grand Rapids
H. W. Longyear, M.D.....3019 N. Woodward Ave., Royal Oak
A. G. McQuaig, M.D.....719 S.W. Capitol Ave., Battle Creek
N. F. Miller, M.D.....University Hospital, Ann Arbor
H. R. Mooi, M.D.....292 E. Chicago, Coldwater
H. W. Sill, M.D.....290 W. Michigan, Jackson
C. S. Stevenson, M.D.....1405 Kales Bldg., Detroit
P. E. Sutton, M.D.....30153 Bristol Lane, Birmingham
D. W. Thorup, M.D.....610 Fidelity Bldg., Benton Harbor
J. H. Tisdel, M.D.....310 E. Water St., Port Huron
C. E. Toshach, M.D.....3655 Schust Road, Saginaw
R. F. Trescott, M.D...716 Michigan Nat. Tower, Lansing
H. R. Williams, M.D.....1950 Manchester Rd., Ann Arbor
Mary Lou Byrd, M.D.,*Advisor*....700 Kent Hills Drive, N.E., Grand Rapids 5
J. V. Fopeano, M.D., *Advisor*....815 American National Bank Bldg., Kalamazoo

TUBERCULOSIS CONTROL COMMITTEE

R. L. Rapport, M.D., *Chairman*....715 Mott Foundation Bldg., Flint
R. M. Bates, M.D.....1820 E. Michigan Ave., Lansing
Abraham Becker, M.D.....1414 David Broderick Tower, Detroit
P. T. Chapman, M.D.....1151 Taylor Ave., Detroit
M. B. Conover, M.D.....312 Paterson Bldg., Flint
W. N. Davey, M.D.....University Hospital, Ann Arbor
J. L. Egle, M.D. ....Northern Michigan T.B. Sanitarium, Gaylord
J. L. Isbister, M.D.....Michigan Dept. of Health, Lansing
A. H. Kempter, M.D.....1200 Lake Drive., S.E., Grand Rapids
E. J. Klopp, M.D.....1015 Security Tower, Battle Creek
G. H. Phillips, M.D.....Tuberculosis Sanitarium, Jackson
R. A. Rasmussen, M.D.....1810 Wealthy St., S.E., Grand Rapids
A. F. Stiller, M.D.....Southwestern Mich. T.B Sanitarium, Kalamazoo
C. J. Stringer, M.D.....401 W. Greenlawn Ave., Lansing
J. W. Towey, M.D.....Pinecrest Sanitarium, Powers
Jack Foy Wu, M.D.....810 E. Centre Ave., Kalamazoo
S. A. Yannitelli, M.D.....1331 W. Michigan Ave., Battle Creek
Stewart Yntema, M.D.....331 S. Jefferson, Saginaw
G. T. McKean, M.D., *Advisor*....1515 David Whitney Bldg., Detroit

IODIZED SALT COMMITTEE

B. E. Brush, M.D., *Chairman*....2799 W. Grand Blvd., Detroit
H. A. Towsley, M.D. *Vice Chairman*..University Hospital Ann Arbor
J. B. Blodgett, M.D.....606 Kales Bldg, Detroit
J. R. Carney, M.D.....202 N. Park St., Ludington
R. C. Moehlig, M.D.....964 Fisher Bldg., Detroit
R. L. Rapport, M.D.....715 Mott Foundation Bldg., Flint
R. L. Waggoner, M.D.....120 W. Center, St. Louis

OCCUPATIONAL MEDICINE COMMITTEE

D. F. Kudner, M.D., *Chairman*....435 Wildwood Ave., Jackson
S. E. Andrews, M.D.....224 E. Cedar St., Kalamazoo
J. G. Beall, M.D.....118½ E. Front St., Traverse City
T. I. Boileau, M.D.....2075 E. Fourteen Mile Rd. Birmingham
M. R. Burnell, M.D.....3301 Westwood Pkwy., Flint
E. B. Cudney, M.D.....Pontiac Motor Company, Pontiac
E. A. Irvin, M.D.....Ford Motor Company, Dearborn
F. E. Kolb, M.D.....128 Calumet St., Calumet
C. P. McCord, M.D.....University Hospital, Ann Arbor
G. P. Moore, M.D.....302 E. Chapin, Cadillac
R. D. Mudd, M.D.....Chevrolet Grey Iron Foundry, Saginaw
P. J. Ochsner, M.D.....Fisher Body Plant, Lansing
O. J. Preston, M.D.....300 N. Chevrolet Ave., Flint
D. M. Richmond, M.D.....314½ State St., St. Joseph
N. W. Scholle, M.D.....2500 Peck St., Muskegon Heights
M. W. Shellman, M.D...110 E. Fulton St., Grand Rapids
S. D. Steiner, M.D.....Oldsmobile Division, Lansing
W. E. VanGelder, M.D.....Hackley Union Bank Bldg., Muskegon

MENTAL HEALTH COMMITTEE

Z. S. Bohn, M.D., *Chairman*.....327 Professional Bldg., Detroit
C. P. Barker, M.D.....318 Wabeek Bldg., Birmingham
H. W. Bird, M.D..... ....1313 E. Ann St., Ann Arbor
P. N. Brown, M.D.....State Hospital, Northville
W. E. Clark, M.D.....136 W. Ash St., Mason
R. O. Creager, M.D.....909 Wheaton, Kalamazoo
J. M. Dorsey, M.D.....65 Moss St., Highland Park
T. J. Heldt, M.D.....Henry Ford Hospital, Detroit
L. N. Hershey, M.D.....Route 1, 31275 Franklin Rd., Birmingham
W. T. Hyslop, M.D.....1469 N. Harrison, Saginaw
R. A. Jaarsma, M.D.....1604 Mott Foundation Bldg., Flint
R. F. Kernkamp, M.D.....1204 David Broderick Tower, Detroit
M. H. Marks, M.D.....8233 W. Chicago, Detroit
J. J. Marra, M.D.....461 W. Huron St., Pontiac
F. O. Meister, M.D.....806 Security Tower, Battle Creek
C. J. Mumby, M.D.....1409 Pontiac State Bank Bldg., Pontiac
W. H. Obenauf, M.D.....Ypsilanti State Hospital, Ypsilanti
R. W. Waggoner, M.D.....3333 Geddes Rd., Ann Arbor
H. B. Zemmer, M.D., *Advisor*.....311 Clay St., Lapeer

CHILD WELFARE COMMITTEE

R. M. Heavenrich, M.D., *Chairman*....1107 Gratiot Ave., Saginaw
W. S. Jones, Jr., M.D., *Vice Chairman*..1146 Tenth Ave., Menominee
R. T. Blackhurst, M.D.....Blackhurst Building, Midland
C. E. Booher, M.D.....1810 Wealthy St., S.E., Grand Rapids
V. G. Chabut, M.D.....206 W. Dunlap, Northville
H. C. Comstock, M.D.....1031 E. Michigan Ave., Lansing
E. L. Cooper, M.D.....414 David Whitney Bldg., Detroit
Goldie B. Corneliuson, M.D.....Michigan Dept. of Health, Lansing
A. J. Cortopassi, M.D.....324 S. Washington, Saginaw
Carleton Dean, M.D.....252 Hollister Bldg., Lansing
N. E. Durocher, M.D.....605 Pontiac State Bank Bldg., Pontiac
R. G. Ferris, M.D.....55 W. Maple St., Birmingham
A. C. Gholz, M.D,.....208 Sperry Bldg., Port Huron
J. P. Klein, M.D.....16 W. Sheridan, Fremont
O. L. Lepard, M.D.....104 S. Lakeview, Sturgis
F. J. Margolis, M.D.....2901 S. Westnedge, Kalamazoo
Don Marshall, M.D.....252 E. Lovell, Kalamazoo
R. J. Mason, M.D.....618 N. Woodward Ave., Birmingham
J. C. Montgomery, M.D.....1810 Wealthy St., S.E., Grand Rapids
W. J. Morrow, M.D.....119 N. James St., Ludington
M. H. Pike, M.D.....224 E. Larkin, Midland
H. A. Towsley, M.D.....University Hospital, Ann Arbor
R. H. Trimby, M.D.....122 W. Hillsdale, Lansing
A. L. Tuuri, M.D.....Mott Clinic, Hurley Hospital, Flint
E. H. Watson, M.D.....280 Barton Drive, N., Ann Arbor
C. F. Wible, M.D.....Sebewaing
R. K. Wise, M.D.....15801 W. McNichols Rd., Detroit

SCIENTIFIC RADIO COMMITTEE

H. A. Towsley, M.D., *Chairman*....University Hospital, Ann Arbor
C. B. Beeman, M.D.....833 Lake Drive, S.E., Grand Rapids
S. J. Behrman, M.D.....University Hospital, Ann Arbor
J. H. Buell, M.D.....901 David Whitney Bldg., Detroit
C. G. Callander, M.D.....4418 Lake Forest Drive, Kalamazoo
R. D. Feeheley, M.D.....3521 State, Saginaw
C. T. Flotte, M.D.....University Hospital, Ann Arbor
G. H. Scott, Ph.D.....Dean, Wayne State University College of Medicine, Detroit
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
R. W. Teed, M.D.....215A S. Main, Ann Arbor
K. W. Toothaker, M.D.....930 N. Washington Ave., Lansing

GERIATRICS COMMITTEE

A. Hazen Price, M.D., *Chairman*,.....62 W. Kirby, Detroit 2
F. C. Swartz, M.D., *Vice Chairman*....215 N. Walnut St., Lansing
F. W. Baske, M.D.....923 Maxine St., Flint
H. B. Bennett, M.D.....942 Maccabees Bldg., Detroit 2
J. P. Bentley, M.D.....404 McNeal St., Jackson
J. R. Brink, M.D.....54 College Ave., S.E., Grand Rapids
S. E. Chapin, M.D.....125 N. Military, Dearborn
J. W. Clay, M.D.....1146 Tenth Ave., Menominee
E. F. Crippen, M.D.....126½ State St., Mancelona
P. C. Gittins, M.D.....732 Maccabees Bldg., Detroit 2
A. H. Hirschfeld, M.D.....829 Fisher Bldg., Detroit
Jack Rom, M.D.....8600 W. McNichols, Detroit 35
Herbert Rosenbaum, M.D.....19776 Snowden Ave., Detroit 35
C. H. Ross, M.D.....715 University Ave., N., Ann Arbor
L. F. Segar, M.D.....1410 David Broderick Tower, Detroit 26
C. W. Sellers, M.D.....2314 W. Grand Blvd., Detroit 8
V. K. Volk, M.D.....Saginaw County Hospital, Box 65, Saginaw
S. C. Wiersma, M.D.....Hackley Union Bldg., Muskegon

(Turn to Page 682)

(Continued from Page 681)

PUBLIC RELATIONS COMMITTEE

R. W. Teed, M.D., *Chairman*.....215-A S. Main St., Ann Arbor
A. B. Gwinn, M.D., *Vice Chairman*.... City Bank Bldg., Hastings
H. G. Benjamin, M.D.....72 Sheldon Ave., S.E., Grand Rapids
F. C. Brace, M.D.....1498 Lake Drive, S.E., Grand Rapids
H. F. Bradfield, M.D.....510 E. Warren, Detroit
J. W. Bunting, M.D.....110 N. First St., Alpena
F. J. Busch, M.D.....1731 N. Michigan Ave., Saginaw
S. E. Chapin, M.D.....125 N. Military, Dearborn
G. A. Drake, M.D.....1109 E. Mitchell St., Petoskey
H. D. Dykhuizen, M.D.....710 Hackley Union Bldg., Muskegon
E. H. Fenton, M.D.....15125 Grand River Ave., Detroit
R. A. Frary, M.D.....423 E. Elm Ave., Monroe
W. G. Gamble, Jr.....2010 Fifth Ave., Bay City
L. E. Grate, M.D.....112 Clinton St., Charlevoix
H. C. Hansen, M.D.....417 Post Bldg., Battle Creek
L. T. Henderson, M.D.....14814 E. Warren, Detroit
W. J. Herrington, M.D.....Bad Axe
S. L. Hoffman, M.D.....State Sanitarium, Howell
D. P. Hornbogen, M.D.....101 S. Front St., Marquette
C. N. Hoyt, M.D.....804 Huron, Port Huron
J. M. Jacobowitz, M.D.....49½ N. Main St., Three Rivers
David Kahn, M.D.....401 American State Bank Bldg., Lansing
E. G. Kiehler, M.D.....1444 W. Genesee St., Lapeer
R. C. Kingswood, M.D.....90 E. Warren, Detroit 1
J. L. Leach, M.D.....3007 Industrial Ave., Flint
E. C. Long, M.D.....2626 Rochester, Detroit
F. E. Ludwig, M.D.....916 Seventh St., Port Huron
F. E. Luger, M.D.....303 N. Jefferson Ave., Saginaw
G. E. Millard, M.D.....2900 W. Grand Blvd., Detroit 2
R. C. Peckham, M.D.....Gaylord
G. N. Petroff, M.D.....1301 Pontiac State Bank Bldg., Pontiac
A. C. Pfeifer, M.D.....11610 N. Saginaw, Mt. Morris
W. Z. Rundles, Sr., M.D.....304 First National Bldg., Flint
Sydney Scher, M.D.....132 Cass Ave., Mt. Clemens
E. W. Schnoor, M.D.....26 Sheldon Ave. S.E., Grand Rapids
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
E. L. Spoehr, M.D.....22832 Woodward, Ferndale
W. F. Strong, M.D.....800 Chippewa St., Ontonagon
C. K. Stroup, M.D.....2002 Court St., Flint
R. L. Thirlby, M.D.....711 Second St., Traverse City
C. L. Weston, M.D.....Matthews Bldg., Owosso
J. M. Wood, M.D.....815 E. Maple St., Mt. Pleasant
L. Fernald Foster, M.D., *Advisor*....441 E. Jefferson, Detroit
B. T. Montgomery, M.D., *Advisor*.....301 E. Spruce, Sault Ste. Marie
E. S. Oldham, M.D., *Advisor*.....Breckenridge
A. E. Schiller, M.D., *Advisor*....1737 David Whitney Bldg., Detroit
T. P. Wickliffe, M.D., *Advisor*.....1167 Calumet Ave., Calumet

PREVENTIVE MEDICINE COMMITTEE

B. M. Harris, M.D., *Chairman*..27 S. Prospect, Ypsilanti
I. A. LaCore, M.D., *Vice Chairman*.....Pontiac State Hospital, Pontiac
B. E. Brush, M.D.....2799 W. Grand Blvd., Detroit
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
R. R. Dew, M.D.....252 E. Lovell, Kalamazoo
S. T. Harris, M.D.....27 S. Prospect St., Ypsilanti
R. M. Heavenrich, M.D.....529 W. Genesee, Saginaw
A. E. Heustis, M.D.....Michigan Dept. of Health, Lansing
F. A. Jones, Jr., M.D.....716 Michigan National Tower, Lansing
D. F. Kudner, M.D.....435 Wildwood Ave., Jackson
W. M. LeFevre, M.D.....289 W. Western, Muskegon
A. H. Price, M.D.....62 W. Kirby, Detroit
W. B. Prothro, M.D.....303 Ionia Ave., N.W., Grand Rapids
R. L. Rapport, M.D.....715 Mott Foundation Bldg., Flint
W. S. Reveno, M.D.....958 Fisher Bldg., Detroit
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
Frank Stiles, Jr., M.D.....2014 Michigan Naticnal Tower, Lansing
H. A. Towsley, M.D.....University Hospital, Ann Arbor

LEGISLATIVE COMMITTEE

L. A. Drolett, M.D., *Chairman*....3526 W. Saginaw St., Lansing
O. B. McGillicuddy, M.D., *Vice Chairman* 1816 Michigan National Tower, Lansing
A. B. Aldrich, M.D.....503 Sheldon Ave., Houghton
J. J. Boccia, M.D.....15761 E. Warren, Detroit
J. C. Elliott, M.D.....207½ E. Front St., Buchanan
O. K. Engelke, M.D.....720 E. Catherine St., Ann Arbor
N. J. Hershey, M.D.....122 Grant St., Niles
K. H. Johnson, M.D.....1116 Michigan Natl. Tower, Lansing
T. J. Kane, M.D.....179 Strong Ave., Muskegon
P. T. Mulligan, M.D.....91 Cass St., Mt. Clemens
J. S. Rozan, M.D.....511 Bank of Lansing, Lansing
H. A. Towsley, M.D.....University Hospital, Ann Arbor
R. V. Walker, M.D.....1255 David Whitney Bldg., Detroit
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

E. H. Fuller, Jr., M.D., *Chairman*....74-88 Ionia Ave., N.W., Grand Rapids
A. B. Aldrich, M.D.....503 Sheldon Ave., Houghton
G. P. Moore, M.D.....734 E. Division St., Cadillac
J. S. Rozan, M.D.....511 Bank of Lansing Bldg., Lansing
D. A. Young, M.D.....14807 W. McNichols Rd., Detroit

ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

J. W. Rice, M.D., *Chairman*....421 McNeal St., Jackson
Ralph W. Shook, M.D., *Vice Chairman*.....136 E. Michigan Ave., Kalamazoo
L. E. Holly II, M.D.....876 N. Second St., Muskegon
D. B. Johnson, M.D.....320 Townsend St., Lansing
J. E. Manning, M.D.....815 N. Michigan Ave., Saginaw
G. E. Millard, M.D.....2900 W. Grand Blvd., Detroit
A. S. Narotzky, M.D.....Miracle Circle, Ishpeming
T. J. Trapasso, M.D.....521 Ashmun St., Sault Ste. Marie
J. A. Witter, M.D.....344 Glendale Ave., Highland Park 3

MEDIATION COMMITTEE

L. R. Leader, M.D., *Chairman* (1960)
1129 David Whitney Bldg., Detroit
D. R. Boyd, M.D. (1960).....1735 Peck St., Muskegon
A. E. Gamon, M.D. (1960)....2004 Court St., Saginaw
Jack Hoogerhyde, M.D. (1959).....124 E. Fulton St., Grand Rapids
E. B. Johnson, M.D. (1959)....412 Water St., Allegan
R. P. Lytle, M.D. (1961).....10 Peterboro St., Detroit
R. W. Teed, M.D. (1961)..215A S. Main St., Ann Arbor

(Continued on Page 684)

Clinical findings in 900 patients show the selective antihypertensive action of Singoserp

IN 735 PATIENTS, BLOOD PRESSURE FELL AN AVERAGE OF 30.7 mm. Hg:

- more than half of these patients suffered from **moderate to severe hypertension**
- more than half of the cases involved hypertension of at least 6 years' standing, with **many histories of up to 20 years' duration**

THE SIDE-EFFECTS PROBLEM WAS MINIMIZED IN MOST PATIENTS:

Chart shows gratifyingly low incidence of side effects in 233 patients given Singoserp with no other antihypertensive medication

Side Effect	Number	Per Cent
Lethargy	7	2.9
Headache	6	2.5
Gastrointestinal upset	3	1.2
Vertigo	2	0.8
Nasal congestion	1	0.4

DOSAGE: Initially, 1 to 2 tablets (1 to 2 mg.) daily.
SUPPLIED: Singoserp *Tablets*, 1 mg. (white, scored); bottles of 100.
Samples available on request. Write to CIBA, Box 277, Summit, N.J.

Singoserp®
(syrosingopine CIBA)

CIBA
SUMMIT, N.J.

2/2657 MK

a major improvement in rauwolfia

a major advance in antihypertensive therapy

(Continued from Page 682)

STUDY ON PREVENTION OF HIGHWAY ACCIDENTS COMMITTEE

J. R. Rodger, M.D., *Chairman*.....Bellaire
G. H. Agate, M.D. .....Michigan Dept. Health, Lansing
R. T. Blackhurst, M.D.....Blackhurst Bldg., Midland
H. E. DePree, M.D.....216 Bronson Medical Center, Kalamazoo
J. H. Ganschow, M.D.....10025 Nadine, Huntington Woods
C. M. Hansen, M.D.....Stanton
W. N. Herbert, M.D.....1223 S. Park, Kalamazoo
A. Z. Howard, M.D.....825 David Whitney Bldg., Detroit
Sidney N. Lyttle, M.D.....615 Mott Foundation Bldg., Flint
W. D. Peterson, M.D.....Box 58, Mesick
C. W. Sellers, M.D.....2314 W. Grand Blvd., Detroit
H. J. Meier, M.D., *Advisor*....87 W. Pearl St., Coldwater

POSTGRADUATE MEDICAL EDUCATION COMMITTEE

J. M. Sheldon, M.D., *Chairman* (1959)
University Hospital, Ann Arbor
E. I. Carr, M.D., *Vice Chairman* (1961)
300 W. Ottawa St., Lansing
H. H. Cummings, M.D. (1961).....216 S. State St., Ann Arbor
G. J. Curry, M.D. (1959).....346 S. Saginaw St., Flint
M. A. Darling, M.D. (1961)....673 Fisher Bldg., Detroit
A. C. Furstenberg, M.D. (1960)....University Hospital, Ann Arbor
J. R. Heidenreich, M.D. (1959).....Daggett
D. H. Kaump, M.D. (1959).....Providence Hospital, Detroit
R. M. McKean, M.D. (1961)....1515 David Whitney Bldg., Detroit
D. W. McLean, M.D. (1959).....1066 Fisher Bldg., Detroit
E. J. Neill, M.D. (1961)....8045 E. Jefferson, Detroit
F. P. Rhoades, M.D. (1959)....970 Maccabees Bldg., Detroit
J. M. Robb, M.D. (1960)....633 David Whitney Bldg., Detroit
G. H. Scott, Ph.D. (1961).....1401 Rivard, Detroit
R. M. Stow, M.D. (1961)....512 Michigan National Tower, Lansing
H. A. Towsley, M.D. (1960).....University Hospital, Ann Arbor
S. B. Winslow, M.D. (1960)....1509 Security Nat'l Bank Bldg., Battle Creek
E. S. Woodworth, M.D. (1959).....1200 Byron Road, Howell

ETHICS COMMITTEE

H. W. Porter, M.D., *Chairman* (1962)....505 Wildwood Ave., Jackson
W. L. Harrigan, M.D., *Vice Chairman* (1962)....408 E. Broadway, Mt. Pleasant
F. M. Doyle, M.D. (1961)....611 Howard St., Kalamazoo
R. J. Hubbell, M.D. (1959)....252 E. Lovell, Kalamazoo
F. H. Lindenfeld, M.D. (1962)....8 N. St. Joseph, Niles
F. E. Ludwig, M.D. (1959)....916 7th Street, Port Huron
J. D. Miller, M.D. (1962).....50 College Ave., S.E., Grand Rapids
E. A. Oakes, M.D. (1960).....401 River St., Manistee
E. A. Osius, M.D. (1960)....901 David Whitney Bldg., Detroit
A. H. Price, M.D. (1962).....62 W. Kirby, Detroit
P. K. Stevens, M.D. (1961)....201 Michigan Theatre Bldg., Flint
W. F. Strong, M.D. (1960).....800 Chippewa St., Ontonagon
C. E. Umphrey, M.D. (1959)....15300 W. McNichols Rd., Detroit

COMMITTEE ON DIABETES

W. M. LeFevre, M.D., *Chairman*.....289 W. Western, Muskegon
John A. Cowan, M.D.....825 Touraine, East Lansing
J. B. Rowe, M.D.....653 Saginaw St., Flint
G. W. Slagle, M.D...203 N.E. Capitol Ave., Battle Creek
Bert Van Ark, M.D.....101 W. Plain, Eaton Rapids
K. K. Vining, Jr., M.D.....833 Lake Drive, S.E., Grand Rapids
H. L. Woodburne, M.D...916 Washington Ave., Bay City

1959 Annual Session MSMS
September 29-30 October 1-2, 1959
Pantlind Hotel—Civic Auditorium, Grand Rapids

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

Say you saw it in the Journal of the Michigan State Medical Society

a new derivative of Erythromycin designed especially for children

CITRUS-FLAVORED

ERYTHROCIN®

ETHYL SUCCINATE

ORAL SUSPENSION

Never a flavor like this in an antibiotic suspension. A new achievement in pharmaceutical elegance—a ready-mixed, stable suspension so sweet and good you can't tell it's "medicine."

No bitterness, no unpleasant aftertaste—just pure, sweet citrus flavor.

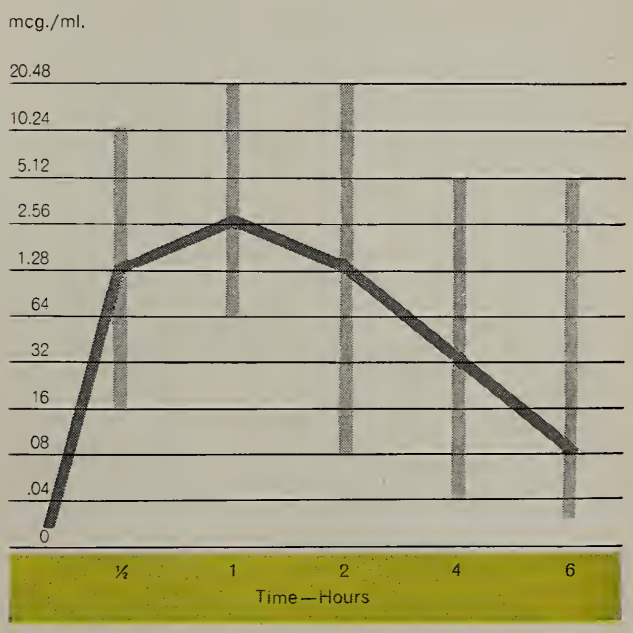
Never an antibiotic better proved against everyday coccal infections. After millions of prescriptions, an unparalleled safety record.

High, peak blood levels within one hour—plus nearly 100% effectiveness against coccal infections. And, unlike broad-spectrum antibiotics, ERYTHROCIN is classed as a bactericidal agent.

Indications: Against staph-, strep- and pneumococci. Especially useful when patients are allergic to penicillin or other antibiotics. **Dosage:** For children, 30 mg./Kg. per day. Adults, 1 to 2 Gm., depending on severity of infection. **Supplied:** In 60-cc., pour-lip bottles. Each 5-cc. teaspoonful represents 200 mg. of Erythrocin. Abbott

If you're concerned with blood levels . . .

Range of blood levels obtained from one dose of 400 mg. ERYTHROCIN SUSPENSION. Medication was administered to 30 volunteer adults, and represents a dosage of approximately 6 mg./Kg. Bars show ranges—continuous line indicates medians.



®ERYTHROCIN—ERYTHROMYCIN, ABBOTT 905105

It Can Be Done!

LOUIS M. ORR, M.D.
President-Elect, American Medical Association
Orlando, Florida

The recent visit of Soviet First Deputy Premier Mikoyan to this country and Mr. Khrushchev's announcement that the Russians will turn over all authority in their Zone of Germany to the East German regime in May once again have called America's attention to the city of Berlin—no, to the two cities of Berlin, East and West.

You and I know a great deal about these twin cities even though some of us may never have been there. One is a bleak metropolis. Life is drab and depressing. Enthusiasm and vigor are gone, and the people plod along without hope that economic, social and political matters will get any better—notwithstanding Khrushchev's plan to relinquish direct Kremlin controls.

Run by a Soviet puppet government *for* the Kremlin, East Berlin is the No. 1 example of a government-managed economy and political dictatorship.

In contrast, West Berlin is "a monument to bursting capitalism," in the words of newspaper columnist William S. White, "It is a place of food and warmth and life and even luxury."

Its free society, competitive-enterprise economy and democratic government have made it so.

In reciting these facts, and they are facts, I have no intention of delivering a lecture on foreign policy. Nor do I offer a solution to the complex German problem.

But I do believe that this contrasting picture of the two cities is quite similar to the two stories of medicine in the world today.

One is the tale of government-managed medicine and medical dictatorship by bureaucratic rule. The other is the account of medicine in a competitive free-enterprise economy where medical practice is run to please patients, not government personnel.

Like East and West Berlin, government medicine and private practice medicine are on open exhibit in our world today. Just as West Berlin is a radiant contrast to East Berlin, so private practice medicine is a radiant contrast to government-controlled medicine.

Just as the Kremlin now seeks to close off the free society of West Berlin, there are those who hope to end the private practice of medicine in this country through legislation which would place the control in the hands of big government or non-medical agencies.

Ironically, even in West Germany we see how badly medical conditions can get in a free society that adopts a government system of medicine. Last month the news magazine *Der Spiegel* revealed that the system is in serious trouble with ballooning costs, physician protests and revolts, and general dissatisfaction.

The present course of government medicine in West Germany is thus no different than in other countries where it has been tried.

The conclusion once again is obvious: Politics and medicine are no more compatible than water and oil; they simply won't mix.

But naive indeed is the person who thinks that all United States legislators have learned lessons from the past or the present about trying to mix politics and medicine. Past defeat on health schemes and current bungling by government medicine around the world apparently have made, and will make little or no impression on those determined to do-something-for-someone and damn-the-cost-or-the-consequences.

This is especially true in election years. Although 1959 is not an election year 1960 is, and we can be sure that the proponents of government medicine will spend the next eleven months in tooling-up and laying the groundwork for the big push next year. We may expect those who support the idea of placing the government into the medical care field to rally their forces, collect data, survey the problem and gather favorable testimonials.

The Forand Bill

Specifically, as you perhaps know, the legislative health measure to receive all this attention is—and will be—an expansion of Social Security to include hospital and perhaps medical benefits to all Social Security beneficiaries. Although the proposal died last year in the 85th Congress, it is due to emerge again in the 86th Congress at any hour. Its form undoubtedly will not be the same as the 85th Congress, for there will no doubt be a variety of limitations on benefits and age of eligibility.

These changes will be designed primarily to make the bill more attractive from the standpoint of *economy, freedom of choice* and perhaps *free enterprise.*

Backers of the measure thus hope to eliminate or minimize many of the strong arguments against the bill. They would like many outspoken opponents of the original Forand Bill to say: "Well, this new proposal isn't so bad." Or, "It's not so expensive." Or, "It's acceptable now."

(Continued on Page 699)

(Continued from Page 696)

Making the measure more attractive and acceptable is not the only effort to push and promote Forand-type legislation. Just a week ago a new Senate subcommittee of the Labor and Public Welfare Committee was authorized to conduct a broad, year-long study of problems of the aged and aging.

Established at the request of Sen. Pat McNamara and subsequently headed by the Michigan Democrat, the subcommittee apparently will be out to assess the feeling of the public on the proposed entrance of the federal government into the medical care field. This, of course, will not be one of the avowed purposes, but the intentions of the subcommittee chairman are not subtle at all, for he says that the group will seek "the exact nature of the problems, the role of the federal government in the field, the ability of existing public and private agencies to provide solutions, and recommendations at a later date of specific legislation."

Certainly by now the dangers of such legislation should be apparent. Here briefly and quickly are some of them:

—For the first time in history legislation of the Forand-type would add health benefits to a Social Security program that now pays cash benefits based on the "floor-of-protection" concept. This new principle would completely alter the nature of the program, and would open the door for evolution of a system of tax-paid health care for the entire nation. Indeed, it would establish the principle that provision of medical care for any segment of the population, or all of it, is a federal function.

—The cost would be exorbitant. So-called "free" hospital care and medical and surgical care for millions of senior citizens would necessitate raising the Social rates for all, regardless of need, religious scruples or desires. And the first raise would be only the beginning.

Commenting on the whole Social Security problem recently, the Wall Street Journal stated editorially that "the boost in Social Security taxes on January 1 from $94.50 to $120 (maximum) is just a hint of what is to come. By 1969 the tax will be up to $216, an increase of 80 per cent in the next ten years. The original law in 1937, incidentally, called for a maximum tax of $30. The government, it would seem believes that by 1969 the cost of living will have risen more than seven times what it was in 1937."

This experience with our own Social Security system, plus the revealing stories of government medicine in European nations, is evidence enough that the initial tax for so-called "free" medical care will be just a drop in the bucket compared to what will be required in ten or twenty years.

—This type of legislation represents the "shot-in-the dark" method of lawmaking which might nick one small part of an unseen target. Moreover, it violates the very basic approach to meeting the problems of the aging as outlined by President Eisenhower when he said that we must "place maximum emphasis on individual freedom and responsibility and to foster maximum use of existing programs and agencies."

There are other dangers, of course, and I am sure you can each name at least a half dozen more.

In meeting the health needs of our older citizens medicine has done a fair job in the past. It currently is doing a better job, and it is preparing to set in motion a positive program for older citizens that will take into consideration all the facets of the aged and aging problem. Here we include not only the health and physical needs but the social, economic, occupational and psychological requirements. And I need not remind you that no huge federal spending will solve these special considerations.

Needless to say, medicine needs the help of every member of the health team in this country if it is to suceed in a two-fold campaign to (1) provide leadership and imagination for a multi-phased approach to health care of the aged and (2) to defeat an unsound bill in Congress which would put an important segment of the senior citizen entirely under a bureaucratic system.

I am gratified that Blue Shield has been one of the first to pledge its all-out cooperation in working with the medical profession to do an effective job in providing medical care for the aged, especially the lower income groups.

As you may know, the AMA House of Delegates two months ago approved by unanimous action a proposal calling for physicians to provide medical services at adjusted rates to persons over sixty-five years of age with reduced incomes and modest resources.

Physicians have been urged to accept a level of compensation that will permit the development of insurance and prepayment plans at a reduced premium. Again Blue Shield has expressed and demonstrated its desire to work with physicians now to bring this about immediately so that more senior citizens can be covered and protected.

I could recite to you eight or ten other constructive actions taken by the AMA—separately or jointly with allied medical groups—that will help bring about sound, positive solutions to various problems of our senior citizens. These include the establishing of a Joint Council to Improve the Health Care of the Aged . . . setting forth a basic six-point program designed to provide the best for the aged and the aging . . . blueprinting for state and county societies suggested guides for action in the aging field . . . promoting and establishing high standards of nursing home care . . . and supporting changes in laws to stimulate the construction of more nursing homes and chronic illness facilities.

Likewise, Blue Shield has been consistently aware of the need to plan and to act more and

more in the field of aging and the aged. Your achievements are equally as impressive in the field.

You have developed a model contract for insurance for persons over sixty-five in following the recommendations of the AMA resolution on behalf of a reduced premium rate prepayment plan.

You have sought an increase in the number of Blue Shield plans with no age limitation on non-group enrollment and the number with coverage especially designed for older persons.

You are developing patterns of benefits considered to be basic coverage especially for older citizens.

These efforts plus many, many more by Blue Shield, Blue Cross and private insurers assure us in the medical profession that voluntary enterprise can do the best job of financing the cost of illness for senior citizens.

That we all have done much no one can question. That we all are capable of even more no one can deny. That we will go on to complete the task with speed and soundness I have no doubt.

Already more than 40 per cent of the persons over sixty-five are covered by voluntary health insurance. And this coverage has been attained largely in the past five or six years.

Thus, rapid progress is being made *without* the direct help of government.

Despite all this, a word of warning is necessary. Let's not live on past accomplishments. Let's not have America's health team become a mutual-admiration society in which each member periodically lauds the other fellow for his plans, his surveys, and his continuing studies of the aged problems.

Our individual jobs are *to think* and *to create, to develop* programs and then to put our sound ideas into *action.*

In addition, let's offer suggestions to each other. Let's be critical if necessary, not with the thought of splitting the health team but of strengthening it and making the best use of our combined talents.

For example, the AMA Committee on Insurance and Prepayment Plans agrees in general with Blue Shield's special program for medical care coverage for the aged. However, it suggests that a major effort must be made to provide an alternative to hospitalization.

This alternative might well be a specified number of office and home calls per year, which would permit calls to nursing homes as an alternative to hospitalization.

This suggestion has been made because the future of medicine and voluntary enterprise may well be determined largely by the extent to which Blue Shield and other voluntary financing mechanisms expand their coverage of the older citizen.

Yes, medicine is determined to work programs of all types. And here I also include construction of additional nursing homes, convalescent wings in hospitals, higher standards for non-hospital institutions, and experimentation with progressive hospital care.

Medicine is equally determined to fight proposals for compulsory health insurance in any form. No issue will arouse the vast majority of physicians as will proposals for nationalized medicine, in toto or by piecemeal.

American medicine holds that the principles under which voluntary prepayment plans, independent hospitals and private practice of medicine operate are *too important, too valuable* to throw away. On the contrary, we believe that *every* avenue should be exhausted in defense of the inherent freedoms on which they are based.

The AMA's executive vice president, Dr. "Bing" Blasingame, in an address to hospital administrators only last week, called upon all members of the health team to meet the challenge of government medicine for the aged. He said:

"When we turn to the federal government in this area, we are running away from the problem. Instead of running, we should recapture the pioneering spirit, the willingness to assume risks ourselves, which was the foundation on which Blue Cross and Blue Shield were built.

"When Blue Cross and Blue Shield began, many said, 'It can't be done.' But we refused to accept these predictions. The results, in which you played such a magnificent role, are history.

"We must join together in a similar crusade today. This crusade calls for a re-examination of techniques for financing hospital and medical service, for thorough study of ways in which costs of adequate care for our older citizens may be lowered, for promotion of programs which will reduce demands on hospitals and other medical facilities, and for a wide variety of other positive activities which get to the heart of the patient's needs."

Again the proponents of social medicine are saying "it can't be done." They are being joined by persons who should know better. In fact, recently a well-known economic news analyst stated that there is no practical substitute for federally financed health insurance for old people.

Let's not yield to any such cult of inevitability and defeatism.

Not long ago President Eisenhower wisely summed up the Far Eastern situation and his remarks are appropriate for us as we face the government medicine problem once again.

"Shall we," he said, "take the position that, submitting to threat, it is better to surrender a piece of free territory in the hope that this will satisfy the appetite of the aggressor and we shall have peace?

"Do we not still remember that the name of 'Munich' symbolizes a vain hope of appeasing dictators?

(Continued on Page 718)



accelerate convalescence with nutritional therapy

Sustagen®

Complete food, Mead Johnson

powder

When you prescribe Sustagen during convalescence, you help fulfill the critical needs of your patients for increased amounts of calories, protein and vitamins. "In some instances of acute illnesses, injury, or surgery, intensive nutritional therapy may be the deciding factor in the outcome."[1] Sustagen, because it generously supplies all known essential nutrients in convenient concentrated form, helps speed recovery.

Mead Johnson
Symbol of service in medicine

SU-159M

[1]Halpern, S. L.: Ann. New York Acad. Sc. 63: 147-164 (Oct. 28) 1955.

You and Your Business

TAX COURT RULING

A Doctor of Medicine, an internist from Worthington, Ohio, underwent psychoanalysis and studied psychiatric techniques so that he might be a better practitioner of internal medicine. In 1954-55, training and travel expenses approximated $9,000, which he deducted as a business outlay. This was disallowed by the Commissioner of Internal Revenue. Dr. Watson appealed to Tax Court.

Before the Tax Court, the Commissioner held that it is not "customary" for a doctor to spend money for analysis and psychiatric training, therefore Dr. Watson's expenditure did not qualify as an ordinary and necessary expense for tax purposes. But this did not impress court, which said in part:

"It is in the realm of common knowledge that many physicians ordinarily continue to enlarge their medical education after their fundamental training has been completed and they have embarked on their practice. . . . He (Dr. Watson) took the course, not for the purpose of becoming a specialist as a psychiatrist, but for the purpose of better carrying on his own practice. . . . We hold the claimed deductions should be allowed." And that, it might be added, is final.—WRMS.

PUBLIC WELFARE MEDICAL RELIEF

How can six million Americans obtain adequate medical care, and pay for it, when they already depend on public welfare for the essentials of food, clothing and shelter? This is a question of growing importance for social agencies and taxpayers in general.

An answer may lie in more than 20,000 individual records now being studied at The University of Michigan School of Public Health.

Over the past seventeen months, field workers collected the data from welfare departments in Connecticut, Illinois, Maryland and Rhode Island. They hope to gain information from this sample that will apply to the nation as a whole.

Nationwide, there are an estimated six million persons on public relief rolls.

Solomon J. Axelrod, M.D., professor of public health economics, University of Michigan, said, "The problem of providing medical care for these people is immensely complex. Many of them were forced onto relief in the first place because they were sick."

Dr. Axelrod is principal investigator in the project which is supported by the American Public Welfare Association.

The University of Michigan researchers are concentrating at present on the amount and kind of medical care received by persons drawing Old Age Assistance (OAA).

"We're starting here," Axelrod reported, "because of the increasing number of older people in our population, and because the cost of their medical care uses an increasing share of the tax dollar spent for relief.

"We already know that Social Security payments in many cases do not provide enough money for medical attention. More and more of the aged are depending on OAA for medical care, even while drawing Social Security.

"Secondly, we wish to clarify some of the administrative problems said to exist. It appears, for example, that more money in the OAA medical care program is spent on prescribed drugs than for physicians' services.

"Another administrative problem is that of providing adequate care for long-term illnesses. Often our older people undergo long periods of hospitalization for social—rather than medical—reasons: they simply have no other place to stay."

The research project was launched at The University of Michigan in September, 1957. Last month, the American Public Welfare Association gave the researchers an additional grant of $27,903 to support detailed analysis of the information gathered so far.

Preliminary findings on this phase of the project are expected to be ready in July of this year.

SPEEDING MEDICAL COMMUNICATIONS

The W. K. Kellogg Foundation of Battle Creek has made a donation for research to expedite a quicker translation of Medical Research findings into improved medical practice. A five-year commitment is made to the Association of American Medical Colleges of $500,000 which is to be used for comprehensive studies of the administration, financial structure, curricula, research and medical services of the nation's 86 medical schools. Such studies are essential to the improved preparation of physicians—the key to shortening the time-lag between the discovery and application of knowledge to the people's health problems.

Subsidies for the great surge of medical research have increased tremendously in recent years, but comparatively little support has been tendered to medical education which has the major responsibility for improvement of the whole health service problem. In between the increasing effectiveness of medicine and the public's enlarged demand for medical care are the institutions concerned with the training of health personnel. Now the grant of a half million dollars will enable the Association of American Medical Colleges further

(Continued on Page 708)

only one Schering Repetab will give your patient

NONSTOP RELIEF FROM NEW YORK TO ISTANBUL



When you prescribe medication in convenient REPETAB form, one REPETAB taken just before his jet flight leaves New York's Idlewild Airport will give your patient the benefits of the first full dose almost as swiftly as his plane soars up and out over the Atlantic. He'll enjoy a single, sustained high therapeutic level for up to 12 hours as his modern plane carries him smoothly over the 5,009 miles. And he can relax until he settles down to shish kebab at Pandeli's 12 hours later....That 12-hour flight to Istanbul is just over the horizon. Modern, dependable REPETABS are here now!

You can prescribe these Schering products in REPETAB *form*

CHLOR-TRIMETON® REPETABS, 8 and 12 mg.
Chlorprophenpyridamine Maleate

TRILAFON® REPETABS, 8 mg.
perphenazine

POLARAMINE* REPETABS, 6 mg.
dextro-chlorpheniramine maleate

PRANTAL® REPETABS, 100 mg.
diphemanil methylsulfate

GYNETONE® REPETABS, .02 and .04 mg.
combined estrogen-androgen

DEMAZIN® REPETABS, 4 mg.
Chlor-Trimeton plus phenylephrine

symbol of the one-dose convenience you want for your patient

REPETABS,® Repeat Action Tablets.

PROMPT REPETAB RELIEF • LASTS ALL DAY OR NIGHT •

Schering

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

*T.M.

S-111

SPEEDING MEDICAL COMMUNICATIONS

(Continued from Page 706)

to develop its services to member schools and other health agencies.

The Association's services of the past have focused upon more effective recruitment of able students, curriculum experimentation, improvement of teaching methods, continuing education for physicians, and maintaining communication between medical educators, other health personnel and the American public.

There is a growing belief that health and medical care, as concerns of society, are fast approaching a par with food, clothing and shelter. And, as a result of this concern, health as a public activity is perhaps among the top five "business enterprises" of our nation.

The study will concern itself with problems of establishing new medical schools; the inadequacy of existing faculties and exploration of future needs; supply of students for the medical schools; keeping up with new research which continues to open new knowledge channels. The "Bayne-Jones Report," an advisory study prepared at the request of the Secretary of the Federal Department of Health, Education and Welfare, recommends tripling present expenditures for medical research, to reach perhaps one billion dollars by 1970 . . . an increase in the number of medical researchers from 20,000 to 45,000 by 1970 . . . that the ratio of physicians should not be permitted to fall below the present 132 for each 100,000 persons in the population . . . that this ratio be maintained by the building of some fourteen to twenty new medical schools by 1970 at a cost of between $500,000,000 and $1,000,000,000 (one-half this cost to be provided by the Federal Government and the balance by industry and private philanthropy) . . . that a great deal more money be provided by the Federal Government for the expansion of existing medical schools.

A report of a Committee of Consultants on Medical Education to the Surgeon General of the U. S. Public Health Service, due in July, 1959, is expected to bring forth strong recommendations for expanded and improved medical education. The studies financed by the Foundation should provide guidelinks for these expansions and improvements. However, the task will be no simple one.

MULTIPLE SCLEROSIS RESEARCH

A consulting and diagnostic service for multiple sclerosis patients has been established at Wayne State University College of Medicine, according to John S. Meyer, M.D., professor and chairman of the department of neurology.

The service is sponsored by a $20,000 grant from the Michigan Chapter of the National Multiple Sclerosis Society, a United Fund-Torch Drive Agency.

John T. McHenry, M.D., associate professor of neurology and director of the new Multiple Sclerosis Clinic said, "Under the terms of the Society's affiliation, the Department of Neurology will provide neurological supervision and clinical evaluations for the referring physician. The ultimate responsibility for patient care rests with the family physician and it is he who should initiate those community resources available and medically approved."

Research projects into the cause of multiple sclerosis, a disease of the central nervous system, will also be conducted by the Department of Neurology.

Physical therapy and related treatments will be administered at the Rehabilitation Institute of Metropolitan Detroit and other community rehabilitation agencies.

Detroit patients will be seen Thursday mornings at Receiving Hospital. Wayne county and others from out-state will be seen at Detroit Memorial Hospital on Tuesday afternoons. Patients will be seen only on referral of their physician.

Abraham Brickner, executive director, of the Michigan Chapter, National Multiple Sclerosis Society said an estimated 250,000 young adults between the ages of twenty to forty have this affliction. There are 20,200 in Michigan, he said.

Multiple Sclerosis branch chapters and evaluation centers are located in Battle Creek, Grand Rapids, Lansing and Marquette.

YOUR ADVICE NEEDED FOR 1960 WHITE HOUSE CONFERENCE ON CHILDREN

Recommendations about health and children which might reach the 1960 White House Conference on Children and Youth will be formulated this spring on the local level. All the recommendations for the national conference will have their inception at the many regional meetings this year across the nation.

The eleven Michigan regional meetings, which eagerly seek the participation of leaders from the medical profession and other fields, are directed by the Michigan Youth Commission.

County chairmen and committees are conducting studies to look into the changing conditions under which children are growing up and to determine the most pressing problems. These findings will provide the basis for the one-day regional meetings. The regional recommendations then will become the basis for the state report used by the Michigan delegates to the Washington Conference and for possible state follow-up planning and action.

The national conference, held each decade, has been called by President Eisenhower for March 27-April 1, 1960. President Eisenhower has declared that "the purpose of the 1960 White House Conference is to promote opportunities for children

(Continued on Page 710)



. . . and one to grow on

A tiny tablet of REDISOL to stimulate the appetite — to help in the intake of food for growth.

REDISOL is crystalline vitamin B_{12}, an essential vitamin for growth and the fundamental metabolic processes.

Ideal for the growing child, the REDISOL tablet dissolves instantly on contact in the mouth, on food or in liquids.

Packaged in bottles hermetically sealed to keep the moisture out and to retain vitamin potency in 25 and 50 mcg. strengths, bottles of 36 and 100 — in 100 mcg. strength, bottles of 36, and in 250 mcg. strength, vials of 12.

Also available as a pleasant-tasting cherry-flavored elixir (5 mcg. per 5-cc. teaspoonful) and as REDISOL injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

REDISOL®

cyanocobalamin, Crystalline Vitamin B_{12}

MSD

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

REDISOL IS A TRADEMARK OF MERCK & CO., INC.

YOUR ADVICE NEEDED FOR 1960 WHITE HOUSE CONFERENCE FOR CHILDREN

(Continued from Page 708)

and youth to realize their full potential for a creative life in freedom and dignity."

Medicine's voice in this national movement is most important—and can be heard only through active participation at the eleven regional conferences in Michigan.

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of March 9, 1959

- **Report on AMA Commission on Medical Care Plan** (see JAMA, special edition of January 17, 1959).—J. S. DeTar, M.D., Milan, Chairman of the MSMS Ad Hoc Committee presented report and recommendations. The Executive Committee instructed that the Ad Hoc Committee report be published in an MSMS Secretary's Letter with the request that reactions, if any, of component county societies be given by them to MSMS before April 1 so that the Executive Committee of The Council, meeting on that date, may take appropriate action based on the wishes of the component societies. Doctor DeTar was thanked for his excellent report.
- **Medicare.**—The Medicare contract, up for renewal effective April 1, 1959, was signed by the MSMS President and Secretary.
- **President-Elect M. A. Darling, M.D.,** Detroit, reported that the MSMS Group Life Insurance carrier had requested the Michigan Commissioner of Insurance to authorize March 1 as effective date for the MSMS Group Life Plan—and it is anticipated that this request will be granted.
- **Ground breaking ceremonies at site of new MSMS Headquarters Building** (Saginaw Street—M-78—and Abbott Road, East Lansing).—Plans for the simple ceremony scheduled for April 1, were outlined by Secretary L. Fernald Foster, M.D., Detroit. Ground breaking is one of three ceremonies connected with the new building, the others and more important being the corner stone laying, and the final dedication. It is anticipated that the new building will be ready for occupancy about June 1, 1960.

  Acoustical Consultants, as recommended by Architect M. Yamasaki & Associates, and interior design services, using Yamasaki & Associates for an integrated design, were authorized by the Executive Committee of The Council.

  Sale of the present MSMS building at 606 Townsend, Lansing, was discussed briefly and referred to the Committee on Big Look, for consideration on April 1.
- **Increased office space for MSMS** in the David Whitney House (Wayne County Medical Society Building) in Detroit has been approved by the Board of Trustees of WCMS. Cost of alterations and a maintenance contribution are to be paid by the State Society. The Wayne County Medical Society was thanked for its favorable consideration of the State Society's request for more space for its Detroit office.
- **The second quarterly report** on Progress of Blue Shield was authorized to be sent immediately after approval of same by the Executive Committee on April 1.
- **The Executive Committee of The Council approved** proposal of Blue Cross-Blue Shield to televise four health programs from the University of Michigan Medical Center, same to be filmed on magnetic tape in advance of actual viewing on television. This program already had received the approval of the Washtenaw County Medical Society and the University of Michigan.
- **The Executive Committee of The Council approved** in principle the proposition of pilot studies of specifically designated medical benefit structures applied to selective groups, a study proposed by Professor J. McNerney, Director of the study of Hospital and Medical Economics, University of Michigan. The Executive Committee requested presentation of the final plan to the MSMS Council including recommendation on just what is to be done.
- **The Executive Committee of The Council approved** the proposed epidemiological study of leukemia as proposed by Thomas Francis, Jr., M.D., of the University of Michigan, Ann Arbor.
- **The Executive Committee of The Council approved** the proposed program in nutritional training of the Michigan Heart Association.
- **1959 Annual Session.**—(a) Numerous requests for presentation of scientific exhibits at the 1959 MSMS Annual Session in Grand Rapids were referred to a special subcommittee on Scientific Exhibits, with power to act. The personnel of the Committee: W. W. Babcock, M.D., Detroit, Chairman; W. M. LeFevre, M.D., Muskegon; D. Bruce Wiley, M.D., Utica; and Executive Director Wm. J. Burns, Lansing.

  (b) Theme of 1959 Annual Session was decided as "Pearls of Medical Wisdom."

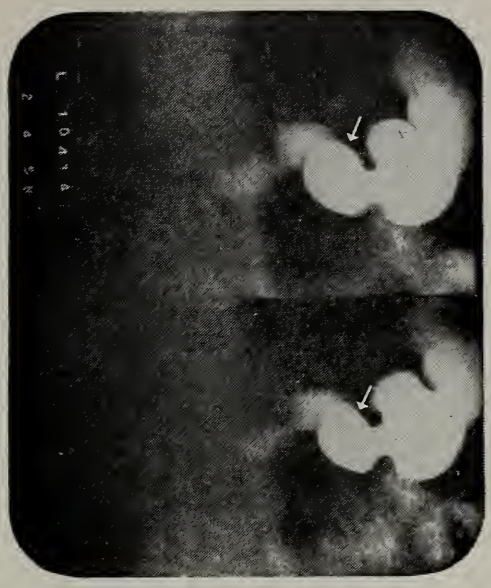
  (c) The two Press Committees for Annual Session for the 1959 Annual Session were appointed by the Executive Committee of The Council:

  1. House of Delegates Press Committee: K. H. Johnson, M.D., Lansing, Chairman; L. Fernald Foster, M.D., Detroit; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; and D. W. Thorup, M.D., Benton Harbor.

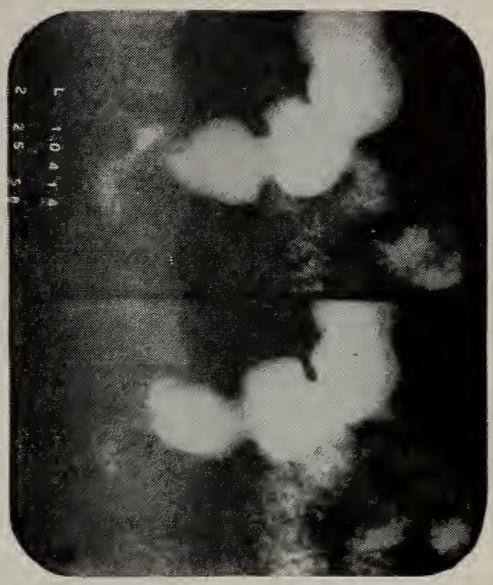
  2. Scientific Press Committee: Howard G. Benjamin, M.D., Grand Rapids, Chairman; A. B. Gwinn, M.D., Hastings; C. L. Weston, M.D., Owosso; Noyes L. Avery, Jr., M.D., Grand Rapids; and Felix S. Alfenito, M.D., Grand Rapids.

(Continued on Page 714)

—and control its G.I. sequelae



Patient A.S., age 53.
Intermittent crises of severe pain over 2 year period; hospital management with Sippy regimen provided relief of symptoms; however, symptoms recurred after each sojourn.



PATHIBAMATE *(Tabs. j t.i.d. and H.S.)*; prompt relief of symptoms. Radiograph (21 days later) confirms healing of minute lesser curvature gastric ulcer crater.

predictable results in the control of tension and G.I. trauma

Pathibamate

Meprobamate with PATHILON® Tridihexethyl Chloride* LEDERLE

Used prophylactically in anticipation of periods of emotional stress, or therapeutically to relieve tension and curb hypermotility and hypersecretion, PATHIBAMATE is particularly well-formulated for the control of gastrointestinal disorders.

PATHIBAMATE combines Meprobamate (400 mg.) — the noted tranquilizer-muscle relaxant widely accepted for safe management of tension and anxiety states — and PATHILON (25 mg.) — an extremely well-tolerated anticholinergic, long noted for prompt symptomatic relief based on peripheral atropine-like action with few side effects.

Indications:
Duodenal ulcer, gastric ulcer, intestinal colic, spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis with gastrointestinal symptoms, gastric hypermotility.

Supplied:
Bottles of 100 and 1,000. Each tablet (yellow, ½-scored) contains Meprobamate, 400 mg.; PATHILON Tridihexethyl Chloride, 25 mg.

Administration and Dosage:
1 tablet three times a day at mealtimes and 2 tablets at bedtime. Adjust dosage to patient response. Contraindicated in glaucoma, pyloric obstruction, and obstruction of the urinary bladder neck.

Also Available: PATHILON in four forms — *Tablets* of 25 mg., plain (pink) or with *phenobarbital*, 15 mg. (blue); *Parenteral* — 10 mg./cc. — 1 cc. ampuls; *Pediatric Drops* — 5 mg./cc. — dropper vials of 15 cc.

*PATHILON is now offered as tridihexethyl chloride instead of the iodide, an advantage permitting wider use, since the latter could interfere with the results of certain thyroid function tests.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 710)

- **Appointments.**—(a) Herbert H. Harris, M.D., Lansing; William S. Reveno, M.D., Detroit; and George W. Slagle, M.D., Battle Creek, were nominated for two places on the Board of Trustees of Blue Cross (Michigan Hospital Service). (b) Robert M. Heavenrich, M.D., Saginaw, Chairman of the MSMS Child Welfare Committee, was appointed to attend as MSMS representative the AMA Conference on Physicians in Schools, to be held in Chicago, October 13-15, 1959.
  (c) World Medical Association, Montreal, September 7-12. Elmer C. Texter, M.D., Detroit, was appointed as official MSMS representative. (d) Blue Shield Medical Care Plan, April 12-16. President G. B. Saltonstall, M.D., Charlevoix, was authorized to attend as official MSMS representative.
- **Proposed conference or institute on alcoholism** for Michigan physicians, sponsored by the State Board of Alcoholism: the Executive Committee of The Council authorized co-sponsorship of such a conference and requested that the program be referred to the MSMS Committee on Alcoholism for advice and timing.
- **Legal Reports.**—Lester P. Dodd, MSMS Legal Counsel, Detroit, gave interim reports on two legal questions that had been laid before him by two component societies. Final report is to be made at next meeting.
- **Committee Reports.**—The following Committee Reports were considered: (1) Public Relations Committee, meeting of February 1; (2) Committee on Selection of Medical Care Insurance Secretary, meeting of February 4, which reported the selection of Herbert A. Auer, East Lansing, whose duties will begin March 16, 1959. (3) Committee to Arrange Residents, Interns, Senior Medical Students Conference, meeting of February 11; (4) Relative Value Studies Committee, February 14—the Executive Committee of The Council accepted this Committee's recommendation for a new Uniform Fee Schedule for Governmental Agencies, as an interim report for reference to the Permanent Advisory Committee on Fees, and extended a vote of thanks to the Committee for the Completion of this monumental work. (5) Medical Care Insurance Committee, February 18; (6) Preventive Medicine Committee, February 25; (7) Geriatrics Committee, March 4; (8) Maternal Health Committee, March 5; (9) Reports on organizational meetings of Councilor District Medical Care Insurance Committees in six Districts was reported.
- **Report on the Workshop** of Executive Secretaries of component societies, held in the David Whitney House, February 2, was presented by Executive Director Wm. J. Burns and approved.
- **Ingham County Medical Society's resolution** re State of Michigan's financial situation and possibility of an income tax was considered and referred to the MSMS Legislative Committee.



The results of administering Delalutin before the 12th week of gestation to 82 women with habitual abortion were reported recently by Reifenstein.[1] Every patient had experienced at least three consecutive abortions immediately preceding the treated pregnancy. More than 68% of these women were delivered successfully and uneventfully following Delalutin therapy.

Boschann,[2] in a study of pregnancies with threatened abortion, found that:

37% of 73 pregnancies were carried to term without progestational therapy
64% of 42 pregnancies were salvaged by progesterone
83% of 73 pregnancies were salvaged by Delalutin

Eichner,[3] found that with Delalutin fetal salvage of infants below term weight (1000 to 2000 gm.) was significantly improved.
108 (76%) of 142 babies of this birth weight survived without progestational therapy.
16 (100%) of 16 babies of this birth weight survived with Delalutin therapy.
A comparison study was made of a group of repeated aborters treated with Delalutin, and a group with a similar history treated with bed rest and sedation.[4] Pregnancy salvage with Delalutin was twice that of the control group. Delalutin was found to be "highly active," well-tolerated and long-acting.

Delalutin offers these advantages over other progestational agents:

- longer-acting and more sustained therapy
- more effective in producing and maintaining a completely matured secretory endometrium
- no androgenic effect
- more concentrated solution requires injection of less vehicle
- unusually well-tolerated, even in large doses
- requires fewer injections
- low viscosity makes administration easier

DELALUTIN is also potent and safe therapy for: threatened abortion; postpartum after-pains; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated with genital malignancy; infertility with inadequate corpus luteum function; production of secretory endometrium and desquamation during estrogen therapy; premenstrual tension; dysmenorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

Administration and Dosage: Because of its low viscosity, Delalutin may be administered with a small gauge needle (deep intragluteal injection). Complete information on administration and dosage is supplied in the package insert.

Supply: Delalutin is available in vials of 2 and 10 cc., each cc. containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

References: 1. Reifenstein, E. C., Jr.: *Annals N. Y. Acad. Sci.* 71:762 (July 30) 1958. 2. Boschann, H-W.: *ibid.*, p. 727. 3. Eichner, E.: *ibid.*, p. 787. 4. Hodgkinson, C. P.; Igna, E. J., and Bukeavich, A. P.: *Am. J. Obst. and Gyn.* 76:279, 1958.

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Delalutin'® is a Squibb trademark

Seal of Assurance Plan

The 1958 House of Delegates instructed that quarterly reports be sent to House members informing them on the progress made in the continuing development of the Seal of Assurance Plan. This is the second report.

1. *Participation in the MSMS Seal of Assurance Plan.* Since the December 31 QUARTERLY REPORT there has been a net gain of 235 Enrollment Authorizations bringing the total number of participating physicians to 4,294.

2. *Councilor District Medical Care Insurance Committees.*—Since January 1, eleven of the fifteen CDMCI Committees have held organizational meetings at which the background, purpose and responsibilities of the committees were explained. These councilor districts which have held meetings to date are: Districts 2, 3, 4, 5, 6, 8, 10, 12, 13, 14, 1-16-17-18. The remaining four meetings will be scheduled as soon as possible.

3. *Study of Alternative Methods of Payment to Physicians.*—Instructed by the 1958 House of Delegates to study alternative methods of paying physicians for services rendered to subscribers of prepayment plans, the Medical Care Insurance Committee set up a method of study and obtained from Legal Counsel a legal opinion of the Enabling Act which will serve as a guide to the feasibility of plans presented to the Committee for consideration. The MCIC has considered this matter at two recent meetings and next month will review specific methods submitted for committee study.

The report, when completed, will be presented at the next Session of the House of Delegates.

4. *Development of Contract for Over-Sixty-fixe Age Group.*—By resolution, the AMA House of Delegates in December asked State Medical Societies to develop a special medical-surgical coverage program for the over-sixty-five age group. The AMA urged that the contract be at a low premium level and that this be accomplished as quickly as possible to combat Forand-type legislation being introduced in Washington.

The task of working out such a program was given to the MCIC by the MSMS Council. In its study, the MCIC developed a report containing available data on cost and utilization experience for this over-sixty-five group. Based on this, the Committee has been able to report to The Council that it estimates the contract, when available, will be purchased by approximately 100,000 Michigan persons—half of these currently covered by Blue Shield as retirees.

It also tentatively recommended that contract benefits conform to the standard as outlined in the MSMS Statement of Principles.

The Committee also reports that it is studying several methods of reducing the subscription rate, while attempting to maintain as nearly as possible the present Plan A ($2,500) fee schedule.

It is hoped that a final recommendation as to benefits, coverage, premium cost, and eligibility requirements will be forwarded to The Council and to the Permanent Advisory Committee on Fees in early May.

5. *Revised Uniform Fee Schedule for Governmental Agencies.*—The revision of the Michigan State Medical Society's Uniform Fee Schedule for Governmental Agencies has been under study for many months. In November, 1958, The Council of MSMS approved the adoption of M-75, Plan A benefits and those unit values applicable to Plan A as the basis for the revised Uniform Fee Schedule.

This action was referred to the Medical Care Insurance Committee's Subcommittee on Relative Value Study since many items in the Uniform Fee Schedule were not benefits under M-75 and the establishment of relative values for these non-benefit items was necessary. This monumental task is now completed.

Upon final approval by the Permanent Advisory Committee on Fees, The Council will authorize printing of the revised schedule.

D. Bruce Wiley, M.D.
Chairman, The Council

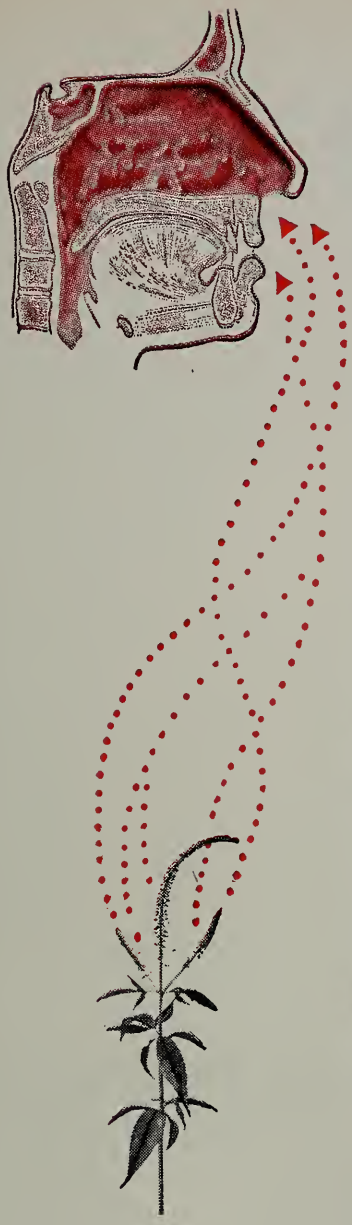
IT CAN BE DONE!

(Continued from Page 700)

"At that time, the policy of appeasement was tried and it failed."

Yes, Quemoy and Matsu would not have satisfied the aggressors any more than legislation calling for hospital care for eligible, retired Social Security beneficiaries will satisfy the proponents of compulsory national health insurance.

Therefore, let's *stand together and stand united* against the thrusts of big government into the medical care field. And equally as important, let's step up the current vigorous program to provide realistic, positive approaches to all phases of health care among all people, young and old.



when pollen allergens attack the nose...

Triaminic provides more effective therapy in respiratory allergies because it combines two antihistamines[1, 2] with a decongestant.

These antihistamines block the effect of histamine on the nasal and paranasal capillaries, preventing dilation and exudation.[3] *This is not enough;* by the time the physician is called on to provide relief, histamine damage is usually present and should be counteracted.

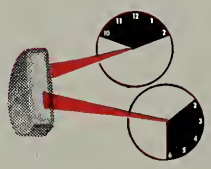
The decongestive action of orally active phenylpropanolamine helps contract the engorged capillaries, reducing congestion and bringing prompt relief from nasal stuffiness, rhinorrhea, sneezing and sinusitis.[4, 5]

TRIAMINIC is orally administered, systemically distributed and reaches *all* respiratory membranes, avoiding nose drop addiction and rebound congestion.[6, 7] TRIAMINIC can be prescribed for prompt relief in summer allergies, including hay fever.

References: 1. Sheldon, J. M.: Postgrad. Med. **14**:465 (Dec.) 1953. 2. Hubbard, T. F. and Berger, A. J.: Annals Allergy p. 350 (May-June) 1950. 3. Kline, B. S.: J. Allergy **19**:19 (Jan.) 1948. 4. Goodman, L. S. and Gilman, A.: Pharmacol. Basis Ther., Macmillan, New York, 1956, p. 532. 5. Fabricant, N. D.: E.E.N.T. Monthly **37**:460 (July) 1958. 6. Lhotka, F. M.: Illinois M.J. **112**:259 (Dec.) 1957. 7. Farmer, D. F.: Clin. Med. **5**:1183 (Sept.) 1958.

Triaminic®

TRIAMINIC provides around-the-clock freedom from hay fever and other allergic respiratory symptoms with just one tablet q. 6-8 h. because of the special timed-release design.



Each TRIAMINIC timed-release tablet provides:
Phenylpropanolamine HCl.....50 mg.
Pheniramine maleate.....25 mg,
Pyrilamine maleate.....25 mg.

Also available: TRIAMINIC SYRUP for those patients of all ages who prefer a liquid medication. Each 5 ml. teaspoonful is equivalent to ¼ Triaminic Tablet or ½ Triaminic Juvelet. TRIAMINIC JUVELETS provide half the dosage of the Triaminic Tablet with the same timed-release action for prompt and prolonged relief.

STOP *running noses*  *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

Ground Broken for New MSMS Headquarters



President Saltonstall turns first spadefull of earth as Speaker Johnson and Council Chairman Wiley look on.

Armed with a silvered spade, topcoats and umbrellas, a brigade of medical officialdom descended on the site of the new MSMS headquarters and with due ceremony broke the ground on which will be erected a building symbolizing Medical Service to the profession and the public.

The honor of turning the first spadeful of earth was given to President G. B. Saltonstall, M.D., Charlevoix.

The ceremony was part of a special meeting of the Executive Committee of The Council on April 1, 1959. This marked the first official meeting on the new MSMS property. The Executive Committee, which met in Lansing earlier that day, adjourned its regular meeting two hours earlier than usual in order that the special meeting could be called on the new site during the daylight hours.

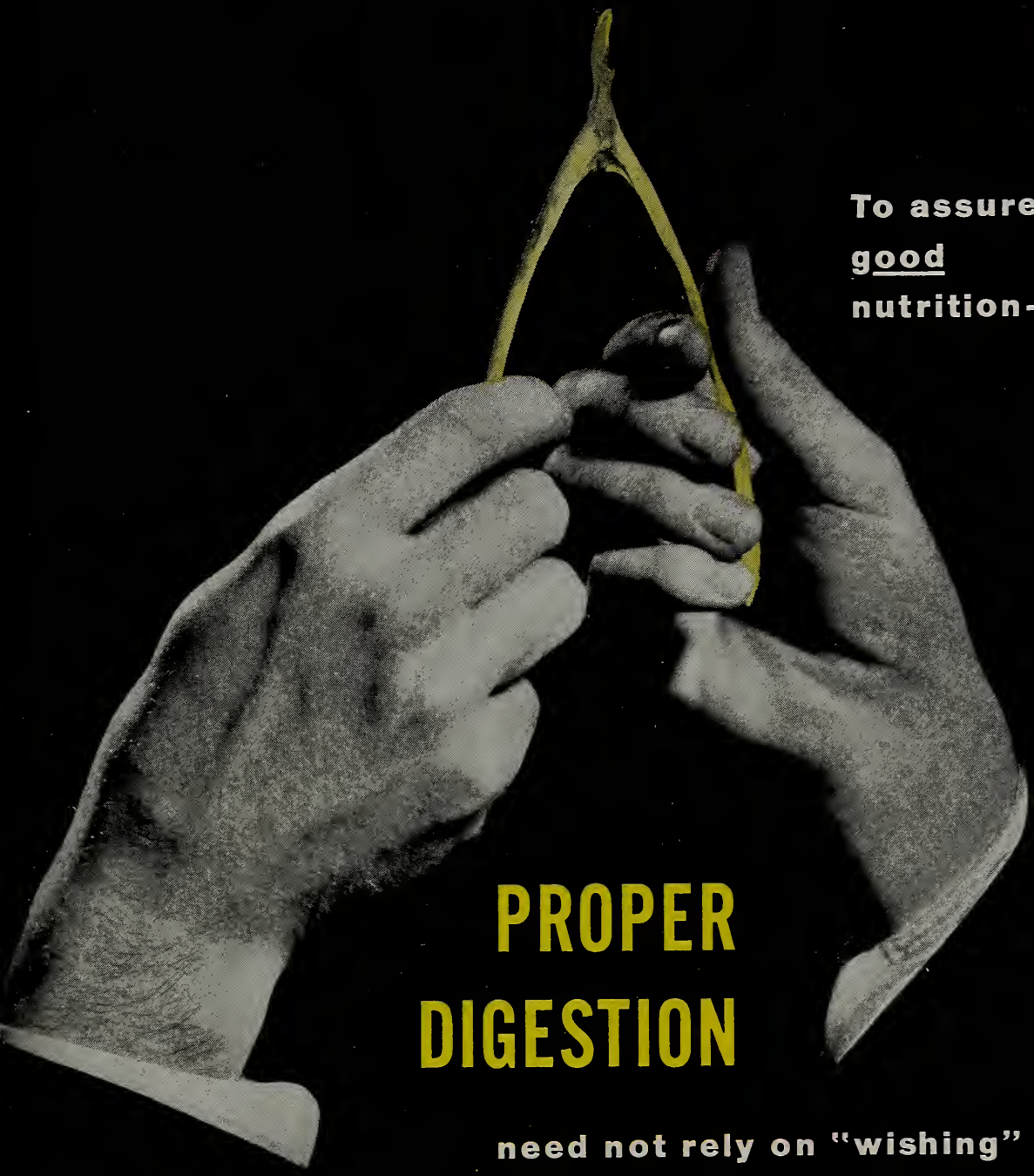
In his address to the fifty-one assembled guests, Dr. Saltonstall said in part, "To better serve its 7,000 members and, through them, the public, the Michigan State Medical Society is providing a modern building for the administration of its many services. The increased space and facilities will permit additional emphasis in several service areas including postgraduate medical education, medical journalism, survey and opinion research and audiovisual production. By these and other means MSMS will more efficiently serve medicine of today and tomorrow."

Architects for the project are Minoru Yamasaki and Associates of Birmingham, Michigan. The firm is known worldwide for its fresh approach in adapting design to building function. The two-story MSMS structure will be modern in design but in harmony with its surroundings, through use of expanses of glass and pre-cast concrete-marble squares. The building will provide 20,000 square feet of floor.

The headquarters will be completed about June 1, 1960.



As guests watch, a Special Meeting of the Executive Committee of The Council is held on the site of the new MSMS headquarters building in East Lansing on April 1, 1959. From left, B. M. Harris, M.D., Ypsilanti; K. H. Johnson, M. D., Lansing; Wilfrid Haughey, M.D., Battle Creek; A. E. Schiller, M.D., Detroit; G. B. Saltonstall, M.D., Charlevoix; D. Bruce Wiley, M.D., Utica; W. M. LeFevre, M.D., Muskegon; Ralph W. Shook, M.D., Kalamazoo; Mr. William R. Jarrett, of office of M. Yamasaki & Associates, Architects, Birmingham; M. A. Darling, M.D., Detroit; and J. J. Lightbody, M.D., Detroit.



To assure **good** nutrition—

PROPER DIGESTION

need not rely on "wishing"

Each double-layered Entozyme tablet contains:

Pepsin, N.F. ..... 250 mg.
—released in the stomach from gastric-soluble outer coating of tablet.

Pancreatin, U.S.P. ..... 300 mg.

Bile Salts ..... 150 mg.
—released in the small intestine from enteric-coated inner core.

A. H. ROBINS CO., INC.
Richmond 20, Virginia
Ethical Pharmaceuticals of Merit since 1878

As a comprehensive supplement to deficient natural secretion of digestive enzymes, particularly in older patients, ENTOZYME effectively improves nutrition by bridging the gap between adequate ingestion and proper digestion. Among patients of all ages, it has proved helpful in chronic cholecystitis, post-cholecystectomy syndrome, subtotal gastrectomy, pancreatitis, dyspepsia, food intolerance, flatulence, nausea and chronic nutritional disturbances.

For comprehensive digestive enzyme replacement—

ENTOZYME®

Robins

Heart Beats

MICHIGAN HEART ASSOCIATION ELECTS OFFICERS

Donald S. Smith, M.D., Pontiac internist, took office as President of the Michigan Heart Association at the meeting of the Board of Trustees in Detroit, March 13. Mr. Frank N. Isbey, Detroit, was re-elected Chairman of the Board of Trustees. B. I. Johnstone, M.D., Detroit, heads the slate of other officers elected to the following posts: Vice-Presidents—Muir Clapper, M.D., Detroit, John Littig, M.D., Kalamazoo, and Mrs. James McEvoy, Detroit; Secretary—Sidney E. Chapin, M.D., Dearborn; Treasurer—Mrs. Alfred T. Wilson, Detroit.



Pictured left to right are: Donald S. Smith, M.D., newly elected President; F. D. Dodrill, M.D., outgoing President; George E. Wakerlin, M.D., Medical Director of the American Heart Association and guest speaker at the Michigan Heart Association annual meeting; Mr. Frank N. Isbey, Chairman, Board of Trustees.

Dr. Smith is a graduate of the University of Michigan School of Medicine and is affiliated with Pontiac General and St. Joseph Hospitals. In addition he is a consultant at Pontiac State Hospital and Oakland County TB Hospital. Dr. Smith has played an active rôle in advancing the association since the early days of its organization. For the past four years he has been Chairman of the Research Committee of the Michigan Heart Association.

Dr. Smith made the following standing committee appointments:

Executive Committee.—Donald S. Smith. M.D., Pontiac, *Chairman;* M. S. Chambers, M.D., Flint; Sidney E. Chapin, M.D., Dearborn; Muir Clapper, M.D., Detroit; Warren B. Cooksey, M.D., Detroit; F. D. Dodrill, M.D., Detroit; E. A. Irvin, M.D., Dearborn; Mr. Frank N. Isbey, Detroit; Mr. George A. Jacoby, Detroit; F. D. Johnston, M.D., Ann Arbor; B. I. Johnstone, M.D., Detroit; John Littig, M.D., Kalamazoo; Mrs. James McEvoy, Detroit; L. Paul Ralph, M.D.. Grand Rapids; Henry L. Smith, M.D., Detroit; Frank Van Schoick, M.D., Jackson; Silas Wiersma, M.D., Muskegon; Mr. Alfred T. Wilson, Detroit.

Research Committee.—F. D. Dodrill, M.D., Detroit, *Chairman;* F. D. Johnston, M.D., Ann Arbor, *Vice Chairman;* Robert S. Ballmer, M.D., Midland; Bert M. Bullington, M.D., Saginaw; M. S. Chambers, M.D., Flint; Muir Clapper, M.D., Detroit; F. A. Coller, M.D., Ann Arbor; John Littig, M.D., Kalamazoo.

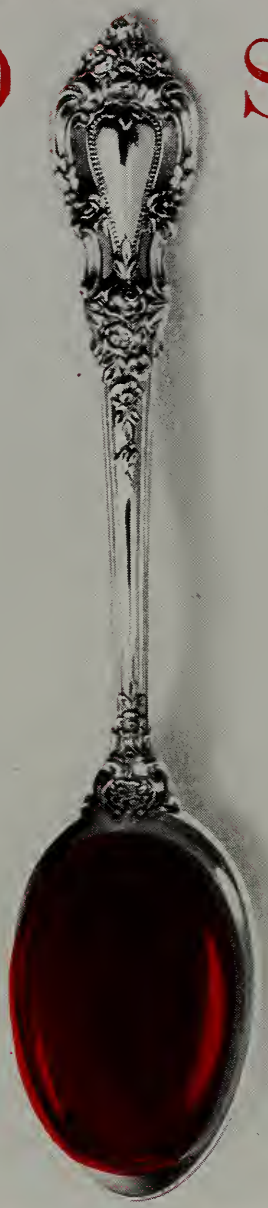
Community Service and Education Committee.—B. I. Johnstone, M.D., Detroit, *Chairman;* Sidney E. Chapin, M.D., Dearborn, *Vice Chairman;* M. S. Chambers, M.D., Flint; Muir Clapper, M.D., Detroit; H. M. Golden, M.D., Flint; E. A. Irvin, M.D., Dearborn; L. Paul Ralph, M.D., Grand Rapids.

Finance Committee.—Mr. Frank N. Isbey, Detroit, *Chairman;* Mr. J. William Hagerty, Detroit. *Vice Chairman;* F. D. Dodrill, M.D., Detroit; Walter C. Folley, Sc.D., Detroit; Mr. George A. Jacoby, Detroit; B. I. Johnstone, M.D., Detroit; Mr. Alfred T. Wilson, Detroit.

George E. Wakerlin, M.D., Medical Director of the American Heart Association, was featured speaker at the Annual Dinner-Meeting of the

(Continued on Page 728)

A SPOON LICKIN' GOOD SULFA!



it's delicious cherry-flavored for children

KYNEX®

ACETYL PEDIATRIC SUSPENSION

N^1 Acetyl Sulfamethoxypyridazine Lederle

just 1 dose a day . . . achieves rapid therapeutic levels . . . sustained for 24 hours . . . extremely low incidence of sensitivity reactions and renal complications . . . convenient, highly economical . . .

ALWAYS ACCEPTABLE . . . WHENEVER SULFAS ARE INDICATED

Recommended dosage: first-day dose is 1 teaspoonful (250 mg.) for each 20 lbs. body weight up to 80 lbs. For each day thereafter, ½ teaspoonful for each 20 lbs. For 80 lbs. and over, use adult dosage of 4 teaspoonfuls (1.0 Gm.) initially, and 2 teaspoonfuls (0.5 Gm.) daily thereafter. Administer immediately after a meal.

Supplied: Each teaspoonful (5 cc.) contains 250 mg. of sulfamethoxypyridazine activity. Bottles of 4 and 16 fl. oz.

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Michigan Clinical Institute

A MILLION TV VIEWERS SEE EYE SURGERY

An estimated 1,000,000 TV watchers saw a cataract extracted from a patient's eye at Providence Hospital in Detroit on April 9 as a prelude to the 1959 Michigan Clinical Institute.

The surgical team which performed the operation was headed by Paul L. Cusick, M.D., assistant professor of ophthalmology at Wayne State University and a member of the staffs of three major Detroit hospitals.

His assistants were Drs. Michael J. Michael and Horace L. Weston and the anesthesiologist was Norbert J. Bittrich, M.D.



Paul L. Cusick, M.D., greets Mrs. Rogan on the morning following the removal of a cataract in her right eye before a state-wide television audience. On hand to express appreciation for her "performance" are D. H. Kaump, M.D., MSMS TV Co-ordinator, and MSMS President G. B. Saltonstall, M.D.

The patient was Mrs. Ethel Rogan, seventy-one, of Pontiac.

The surgery was telecast as an educational project of the MCI to show that modern medicine can remedy eye problems and that persons with cataracts need not live permanently with clouded vision.

State-Wide Coverage

The TV presentation was transmitted over a state-wide network of stations by special arrangement of the Michigan State Medical Society.

As in previous years, the mobile TV facilities of Smith, Kline & French Laboratories, Philadelphia, and its specially trained 13-man team handled the actual televising. Special equipment transmitted the picture from the hospital to WWJ-TV which co-operated in the venture.

The operation was hailed by newspapers and viewers as a major accomplishment by the medical profession in encouraging utilization of available medical techniques. It was pointed out at the MCI that the nation's greatest health problem is to get people to make use of the miraculous medical advances that are available. (A case in point is public apathy toward polio protection.)

Panelists Explain

Since the operation only required about half of the one-hour period, plenty of time was allowed for explanation of cataracts by a panel of four ophthalmologists: Drs. E. L. Cooper, Detroit; H. W.

(Continued on Page 728)



Doctors, too, like "Premarin"®

THE doctor's room in the hospital is used for a variety of reasons. Most any morning, you will find the internist talking with the surgeon, the resident discussing a case with the gynecologist, or the pediatrician in for a cigarette. It's sort of a club, this room, and it's a good place to get the low-down on "Premarin" therapy.

If you listen, you'll learn not only that doctors like "Premarin," but *why* they like it.

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen. Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms due to estrogen deficiency, "Premarin" takes care of that, too.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

A MILLION TV VIEWERS SEE EYE SURGERY

(Continued from Page 726)

Henderson, Ann Arbor; G. H. Mehney, Grand Rapids; and J. G. Beall, Traverse City.

To dramatize the benefits of eye surgery, three former cataract patients appeared on the program. Each illustrated a different type of optical aid that substitutes for the removed lens of the eye.



Harry M. Nelson, M.D., Detroit, chairman of the Michigan Cancer Co-ordinating Committee, presents a scroll of appreciation to Wendell G. Scott, M.D., of St. Louis, at the Cancer Luncheon of March 11 during the 1959 Michigan Clinical Institute. Dr. Scott was the MCCC lecturer appearing that morning. The luncheon was attended by doctors of medicine and lay persons prominently interested in the problem of cancer control.

Daytime Closed Circuit for M.D.'s

During the MCI, closed circuit telecasts originated from Providence Hospital and were seen by doctors assembled in the grand ballroom of the Sheraton-Cadillac Hotel.

Medical co-ordinator for all MSMS TV activities was Donald H. Kaump, M.D., Detroit.

GAIN AT MCI—1511 M.D.'s

Blessed with good weather and an outstanding scientific program, the thirteenth annual Michigan Clinical Institute rang up a total registration of 2,975, with 1,511 being doctors of medicine.

Highlights of the meeting were the live closed-circuit color TV programs, the Awards Luncheon and the Cancer Luncheon. Photo of the Awards Luncheon will appear in the next number of THE JOURNAL MSMS.

The color telecasts were shown for a two-hour period each morning. A huge new TV screen contributed greatly to the acceptance of the clinical information originating from the operating rooms of Providence Hospital. TV medical co-ordinator for the Institute was Donald H. Kaump, M.D., Detroit.

The excellence of the program and the technical exhibits drew acclaim from many M.D.'s who attended. As a result of the program, unprecedented media coverage was given to the meeting. From Monday to Friday, the Press Room was abuzz with reporters, news photographers, and radio and TV people who wished an opportunity to chat with the guest speakers.

While more than 1,500 M.D.'s were receiving postgraduate information, a group of doctors volunteered to tell the story of how medicine has progressed under the free enterprise system. More than 40 luncheon clubs entertained medical speakers during the week.

MICHIGAN HEART ASSOCIATION ELECTS OFFICERS

(Continued from Page 724)

Michigan Heart Association in Detroit, March 12. Dr. Wakerlin cited the large part the Heart Association has had in the advances made in the last decade. He stressed the importance of supporting basic research and emphasized the need for support of young medical investigators. There will have to be an increase in funds available for research to carry out the plans now being formulated, he added.

Two Organizations Merge

The American Society for the Study of Arteriosclerosis recently merged with the American Heart Association. The Society has become the Council on Arteriosclerosis of the American Heart Association.

This brings to eight the number of Councils now active in the Heart Association's program. The other councils cover such areas as clinical cardiology, cardiovascular surgery, circulation, high blood pressure, rheumatic fever and congenital heart disease, basic science and community service and education.

Although arteriosclerosis has always been a primary concern of the Heart Association, until now, it has not had a formal council covering that area.

The new Council on Arteriosclerosis will hold a scientific session and a symposium as part of the Heart Association's thirty-second annual scientific sessions in Philadelphia, next October 23-25.

Despite sharp drops in the incidence of polio since the development of the Salk vaccine, many persons in the most susceptible age groups remain unprotected. Only 45 per cent of the preschool children in this country, and only 30 per cent of the adults twenty to thirty-nine years old have been fully vaccinated, according to Health Information Foundation.

re-evaluating tranquilizers?

READ WHAT CLINICIANS ARE NOW SAYING ABOUT ATARAX®

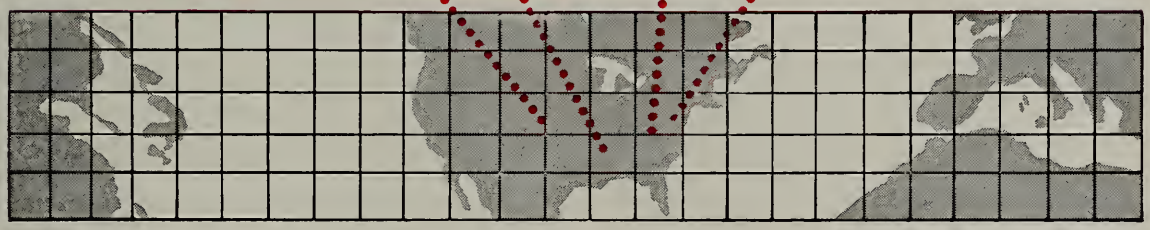
(brand of hydroxyzine)

IN GERIATRICS
"ability to decide correctly has increased, while the illogical response to anxiety has diminished."[1]

IN WORKING ADULTS
"especially well suited for ambulatory patients who must work, drive a car, or operate machinery."[3]

IN PEDIATRICS
"ATARAX appeared to reduce anxiety and restlessness, improve sleep patterns and make the child more amenable to the development of new patterns of behavior...."[2]

IN GENERAL
ATARAX is "effective in controlling tension and anxiety.... Its safety makes it an excellent drug for out-patient use in office practice."[4]



INVESTIGATORS AGREE ON OPTIMAL ATARAX DOSAGES

For childhood behavior disorders	10 mg. tablets Syrup	3-6 years, one tablet t.i.d. over 6 years, two tablets t.i.d. 3-6 years, one tsp. t.i.d. over 6 years, two tsp. t.i.d.
For adult tension and anxiety	25 mg. tablets Syrup	one tablet q.i.d. one tbsp. q.i.d.
For severe emotional disturbances	100 mg. tablets	one tablet t.i.d.
For adult psychiatric and emotional emergencies	Parenteral Solution	25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Smigel, J. O., et al.: J. Am. Ger. Soc., in press. 2. Freedman, A. M.: Pediat. Clin. North America 5:573 (Aug.) 1958. 3. Ayd, F. J., Jr.: New York J. Med. 57:1742 (May 15) 1957. 4. Menger, H. C.: New York J. Med. 58:1684 (May 15) 1958. 5. Coirault, M., et al.: Presse méd. 64:2239 (Dec. 26) 1956. 6. Bayart, J.: Presented at the International Congress of Pediatrics, Copenhagen, Denmark, July 22-27, 1956.

ATARAX®

ROERIG Rx

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

Michigan Association of the Professions Started

W. M. LeFevre, M.D., Elected First President



W. M. LeFevre

Michigan Association of the Professions, incorporated as a non-profit organization, December 1, 1958, has opened executive offices in East Lansing, President William M. LeFevre, M.D., Muskegon, announced this month.

The membership in MAP, an association specifically designed to serve, promote and enhance the professions, is made up of persons engaged in the professions of architecture, dentistry, engineering, law and medicine. To be eligible for membership in the statewide organization, the professional person must be a member of the individual state society of his profession.

Bylaws of MAP, at present, provide that the five state professional organizations shall be elected to state association membership. These include the Michigan Society of Architects, the Michigan Society of Professional Engineers, the Michigan State Dental Association, the Michigan State Medical Society and the State Bar of Michigan. All members of these five societies are eligible for individual memberships; however, it is *not* necessary that a state organization be a member in order for the individual member to apply for membership.

Such other state professional organizations as shall apply for membership will subsequently be declared eligible for membership by a vote of not less than three-fourths of the whole Board of Directors.

MAP will serve the various professions in fields of Legislation, Public Relations, Education, Business Services and Techniques. It is to be emphasized that MAP will be bi-partisan, serving its members as a communication medium between the professions and their legislative bodies on matters directly affecting professionalism. It will seek to place Professions in the same category of "molders of public policy" as business, labor, and farming.

In the field of Public Relations every effort will be made by MAP to educate the public as to what constitutes professionalism. The public must be convinced that professionalism is vital to progress and research. MAP will strive to explain what a professional man is and why—in order that the professions can continue to have freedom of action to serve and receive public support of their procedures of private practice.

In educational efforts it has been found that below the professional school level, talented students need information on the potential that exists for them in professional and related vocational fields. Co-operative effort is mandatory if the professions are to continue to attract top quality persons and give increasingly superior service to the public. MAP will supply this co-operative effort.

MAP also is exploring, and if feasible, will offer group programs in retirement funding, medical insurance, group term life, health and accident insurances, group leasing, purchasing, et cetera. Business advices of particular interest to the professional man will be found in the *Journal* of MAP now being planned.

These business services and techniques are not intended to be the main purpose of MAP but rather should be considered as "fringe benefits" of membership.

At the present time, invitations are being mailed to professional people to become Charter Members of MAP. Interest is widespread and applications for the membership are being received from all over the state. Members who for reasons of change of address, misdirected mail, or other reasons do not receive an invitation are urged to contact the executive office of MAP so that every eligible person may be affiliated with the organization.

The executive offices are located at 712 Abbott Road, East Lansing. Mrs. A. H. Loomis has been named administrative assistant of the new organization.

Officers of MAP are Wm. M. LeFevre, M.D., Muskegon, President; Floyd D. Ostrander, D.D.S., Ann Arbor, Vice President; Elmer J. Manson, A.I.A., Lansing, Secretary and Frederick Von Voigtlander, P.E., Ann Arbor, Treasurer.

Additional members of the Board of Directors are James B. Morison, A.I.A., Detroit; N. O. Saulter, P.E., Detroit; John G. Nolen, D.D.S., Lansing; and G. B. Saltonstall, M.D., Charlevoix. Lester P. Dodd, Detroit, is the Legal Counsel, and Hugh W. Brenneman, Lansing, the executive director.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 MAY, 1959 NUMBER 5

William Beaumont and His Contribution to Medicine

By Alfred H. Whittaker, M.D.

IN THE following pages there is a presentation of material concerning William Beaumont and his contribution to medicine which is intended to summarize current information available regarding the clinical and the historical knowledge of the field of investigation in which Beaumont gained world-wide recognition and in so doing brought great credit to Michigan Medicine.

The hundreds of doctors and citizens who are members of the Beaumont Foundation vouch for the keen interest that is evident in the Beaumont saga.

The doctors of the State, in restoring the old American Fur Company retail store on Mackinac Island and making a gift to the people of Michigan of the building as the Beaumont Memorial, emphasize the importance attached to the physiological experiments and observations carried out on Alexis Bidagan dit St. Martin.

The presentation by text and illustration reflects the effort which has been made to evaluate the work of Beaumont, the many centers in the United States and Canada of Beaumont interest, and it reiterates, especially for the younger physicians, the principles which Beaumont valued so highly—namely, the importance of careful observation, accurate recording of the observations and after careful interpretation of the findings, the expediting of the clinical and therapeutic regimen.





The Beaumont Memorial on Mackinac Island, Michigan

The Memorial, originally the Retail Store of the American Fur Company, in process of restoration, Summer, 1953.

The Beaumont Memorial, just after completion.

The Beaumont Memorial Foundation

By Otto O. Beck, M.D.
Birmingham, Michigan

"OUR age is notorious for its want of piety or sense of the past. Up-to-date men have been too busy making gadgets, automobiles, depressions and wars to care much about anything older than the immediate present." Very aptly put. We tend to forget how important the past is to the present. This also applies to the project on Mackinac Island which the Doctors of Michigan started nine years ago.

Although the Beaumont Memorial was built in 1953, it is a far from finished project. From the time of its dedication on July 17, 1954 until the present time, relatively little progress has been made toward its completion. This has been due, for the most part, to the lack of funds. To overcome this deficiency and to assure a steady income, the House of Delegates of the Michigan State Medical Society at its annual meeting in 1957 authorized the formation of a William Beaumont Memorial Foundation.

Soon after the Foundation was organized, a letter was sent to every member of the Michigan State Medical Society inviting them to become dues paying members of the Foundation. Two classes of memberships were offered, namely—Life and Sustaining. In 1958, the first year of its existence, 364 doctors joined. Of these, fourteen are Life members. If an equal number join in 1959, there will then be sufficient funds in the treasury to resume progress in the Memorial. Furthermore, if the present rate of dues received from the membership is maintained, it is estimated that ten years will be required to complete the project.

Originally, the plans were to reproduce as nearly as possible an early Frontier Trading Post, such as existed in the building at the time that Alexis St. Martin was shot. A number of factors influenced the Board of Trustees to change the plans. To reproduce a frontier store presented many difficulties, besides the main purpose was to honor Dr. Beaumont.

In the past five years, the Foundation has acquired through gifts and purchase some of Dr. Beaumont's furniture, which he used in his home in St. Louis. To display his furniture requires an entire room.

The ground floor is divided into two rooms. In the smaller room will be placed Dr. Beaumont's furniture which consists mostly of bedroom pieces, his bed, a marble topped table, four chairs a book case, and a secretary desk. With proper period draperies on the windows, a few rag rugs on the floor, and an early period stove connected to the chimney, an attractive Beaumont Room will be created.

The larger room is already furnished with early French Canadian habitant living room pieces. These were purchased for the Foundation in Montreal by the Detroit Institute of Art. The French Colonial style is shown in this room. This is something unique in the story of Michigan, and until this restoration was done there was absolutely nothing in the State of Michigan, except that in the galleries of the Detroit Institute of Art, to represent the two centuries of French Colonial life before the American immigration into this State.

The upper floor consists of one large room. Here will be developed a medical museum. At present there are in possession a few surgical instruments which were in use a hundred or more years ago besides a number of various kinds of medical curios. A friend of the medical profession has willed his large collection of rare, antique surgical instruments to the Beaumont Memorial Foundation. This collection consists of over 500 pieces and took more than thirty years to collect. Also in this room will be portrayed the romantic life of William Beaumont, M.D., while on Mackinac Island. This will be done in a series of dioramas. The first one will depict the scene of the inside of the frontier trading post at the time of the accidental shooting of Alexis St. Martin. Assembled in the

store will be shown figures of fur traders, Indians, voyageurs and clerks. One of the voyageurs will be holding a shotgun, and the prostrate figure of Alexis St. Martin will be shown lying on the floor, having just received the full load of shot in his side.

Other dioramas will show Alexis St. Martin in Dr. Beaumont's home, helpless, homeless, and sick, without friends or loved ones, being fed, nursed, treated and provided with all the necessities of life by Dr. and Mrs. Beaumont. Later dioramas will show a healthy Alexis St. Martin on whom Dr. Beaumont is conducting experiments through the gastric fistula.

The first two dioramas may be completed this year for display in 1960. The shortage of funds prevents doing more this year.

When completed, this Memorial will be a contribution from the Doctors of Medicine of Michigan for the enlightenment and pleasure of the people. It preserves a heritage that is ours.

BEAUMONT MEMORIAL FOUNDATION

Officers

President—Otto O. Beck, M.D., Birmingham
Vice President—Wm. LeFevre, M.D., Muskegon
Secretary-Treasurer—Mr. Wm. J. Burns, Lansing
Consultant—Dr. Eugene T. Petersen

Board of Trustees

Otto O. Beck, M.D., Birmingham
M. A. Darling, M.D., Detroit
J. H. Fyvie, M.D., Manistique
W. S. Jones, M.D., Menominee
L. R. Leader, M.D., Detroit
W. M. LeFevre, M.D., Muskegon
G. B. Saltonstall, M.D., Charlevoix
C. E. Umphrey, M.D., Detroit
A. H. Whittaker, M.D., Detroit

Incorporators

Otto O. Beck, M.D., Birmingham
W. S. Jones, M.D., Menominee
C. T. Ekelund, M.D., Pontiac
J. H. Fyvie, M.D., Manistique
Louis J. Hirschman, M.D., Traverse City
W. M. LeFevre, M.D., Muskegon
Alfred H. Whittaker, M.D., Detroit
G. B. Saltonstall, M.D., Charlevoix
D. Bruce Wiley, M.D., Utica
Luther R. Leader, M.D., Birmingham



View of Town of Mackinac Island
From Ballou's *Pictorial Drawing Room Companion,* May 5, 1855.

Alexis St. Martin

By Edward H. Bensley, M.D.
Montreal, Quebec, Canada

IN OCTOBER, 1957, the Canadian Physiological Society appointed a committee to seek ways and means of memorializing the grave of Alexis St. Martin at St. Thomas, a small village in the Province of Quebec about 40 miles northeast of Montreal. This was done at the suggestion of Dr. Charles A. Mitchell who for many years has been keenly interested in the history of science in Canada. The composition of the committee is as follows: Dr. E. H. Bensley (Chairman), Dr. Roméo Boucher, Dr. Guy E. Joron, Dr. Charles A. Mitchell, Dr. Eugène Robillard, Dr. James A. F. Stevenson and Dr. Lloyd G. Stevenson.

Readers will recall that Alexis St. Martin was the famous patient of a famous doctor. Grievously injured in the chest and abdomen by the accidental discharge of a shotgun on June 6, 1822, at Mackinac Island in northern Michigan, Alexis made a miraculous recovery under the care of Dr. William Beaumont, a United States Army Surgeon. After his wounds had healed, Alexis was left with a permanent gastric fistula and became the subject of Beaumont's pioneering work on the physiology of digestion.

Our committee decided that its first task must be to collect as much information as possible about Alexis St. Martin. Knowledge of the man is essential to the planning of an appropriate memorial. Therefore, although some thought has been given to the form which this memorial may eventually take, most of our efforts to date have been directed to reconstructing the details of Alexis St. Martin's life. I must emphasize at the outset that our work is far from complete and this article should be regarded only as a report on progress.

Some of the facts of Alexis' life are to be found in Beaumont's account of his experiments and observations[2] and in the writings of Sir William Osler[9] and Dr. Jesse Myer,[7,8] Beaumont's biographers. Additional data are contained in papers by Janowitz,[4] Luckhardt[6] and Peckham.[10,11] Parish records have provided details of Alexis' birth, marriage, death and burial and have enabled us to trace some of his ancestors and descendants. In this we have been ably and generously assisted by M. Gabriel Drouin, Président, Institut Généalogique Drouin, Montreal and Paris. We have located one of Alexis' granddaughters, now living in Montreal, and are attempting to get in touch with other surviving relatives. The personal contacts with the family are being made by Dr. Eugène Robillard, without whom the committee could accomplish very little. From these various sources we are able to present the following incomplete and fragmentary account of Alexis St. Martin.

Parish records show that Alexis was born and baptized in the Roman Catholic faith on April 18, 1794 at Berthier, Lower Canada (now the Province of Quebec). He was thus born earlier than has been assumed previously. Other records, including that of his burial, underestimate his age. His father was Joseph Bideguin dit St. Martin. Later documents show Alexis' full name to have been Alexis Bidagan dit St. Martin, Bidagan being a variant of Bideguin. The family was French in origin, Alexis' paternal grandfather having come to Canada from Masparraute, a village in the extreme southwest of France within the old province of Navarre.

We know nothing of Alexis from his birth and baptism on April 18, 1794 to the day of June 6, 1822 when, at Mackinac Island as a voyageur in the employ of the American Fur Company, he was wounded by the accidental discharge of a

---

Presented in part at a meeting of the Osler Society of McGill University, November 6, 1958.

Dr. Bensley is chairman, Committee on the Memorialization of Alexis St. Martin, Canadian Physiological Society; Director, Department of Metabolism and Toxicology and Secretary of the Medical Board, Montreal General Hospital; Associate Professor of Medicine, McGill University; Past President, Canadian Society for Clinical Chemistry; Honorary Secretary, Canadian Federation of Biological Societies; Consultant in Nutrition, Canadian Forces Medical Council.

shotgun. Presumably his home had remained in the vicinity of Berthier, for it was there he returned when in later years he left Dr. Beaumont. The story of the accident and the subsequent course of the wound are too well-known to require repetition here. He was treated by Dr. Beaumont at Fort Mackinac and, when declared a "pauper upon the Town and County of Mackinac" and threatened with deportation to Lower Canada, he was taken into Beaumont's family. In May 1825, while still at Mackinac, Beaumont commenced his experiments, although he had made and reported important observations before then.[5] The following month, Beaumont was transferred to Fort Niagara, taking Alexis with him. Then in August of the same year, Beaumont, having obtained furlough, took Alexis to Plattsburgh, New-York. They had been in Plattsburgh "but a very short time, when the close proximity of the Canadian border and the scenes of his boyhood proved an irresistible temptation to St. Martin, and he took 'French leave' of his benefactor."[7] At the expiry of his furlough, Beaumont had had no news of Alexis and was compelled to return to duty at Niagara without him.

Alexis had gone back to his Canadian home and, as shown by parish records, on October 9, 1826 he married Marie Joly at Ste. Elizabeth, a few miles from Berthier in Lower Canada. The next year he was engaged as a voyageur by the Hudson Bay Fur Company and made at least one trip west to the Indian country, going out in 1827 and returning in 1828. Meanwhile Beaumont was trying to get in touch with Alexis through agents of the American Fur Company. Through them he learned in 1828 that Alexis was living about twelve miles from Berthier at La Chalaupe.

In August 1829, Beaumont's efforts to obtain the services of Alexis met with success. The American Fur Company engaged Alexis and transported him from Lower Canada, with his wife and two children, to Fort Crawford, Prairie du Chien on the Upper Mississippi, where Beaumont was now stationed. Beaumont resumed his experiments on Alexis, who now stayed with him for almost two years. Then in the spring of 1831, Alexis and his family returned to Lower Canada with Beaumont's consent. The description of the trip is of interest since it shows Alexis' skill as a voyageur. Traveling in an open canoe with his family, Alexis paddled down the Mississippi passing by St. Louis, Missouri, to the mouth of the Ohio, ascended that river, branched off on one of its northern tributaries, portaged to Lake Erie and then, by way of Lake Ontario and the St. Lawrence River, reached their home beyond Montreal.

Alexis had promised to rejoin Beaumont and he kept his promise. In the fall of 1832, Beaumont went to Plattsburgh on furlough. Here he was met by Alexis who had left his family at home in Lower Canada. Beaumont resumed his experiments and again Alexis stayed with him for almost two years. The greater part of Beaumont's furlough was spent in Washington where Alexis was made a sergeant of a detachment of orderlies stationed at the War Department. This was done to ease the financial burden on Beaumont. The "descriptive Role of Sergeant Alexis St. Martin" stated that "he is twenty-eight years old, has dark eyes, dark hair, dark complexion, and is five feet five inches high, that he was born in Berthier, Lower Canada, that his occupation is that of laborer, and that he enlisted on December 1, 1832, for a period of five years."[7] On the expiry of his furlough in 1833, Beaumont was ordered to New York City and later to Plattsburgh. Alexis went with him and the experiments continued.

In the spring of 1834, Beaumont and Alexis separated. They had just completed a short trip during which Alexis had been exhibited to medical societies in a number of cities, including Boston. Beaumont's book[2] had been published. Alexis was permitted to return to Lower Canada to visit his family, having promised that he would rejoin Beaumont at Plattsburgh in June. This time he failed to keep his promise. He and Beaumont never met again.

Over the next nineteen years, from 1834 to 1852, repeated attempts were made to persuade Alexis to go to Beaumont. Agents of the American Fur Company did their best to accomplish this, but all efforts were in vain. During most of this time Alexis was living with his family at or near Berthier. Beaumont was anxious to have Alexis without his family. Alexis wished to bring his family with him and his wife was unwilling to let him go without her. This led to much argument and frustration. Moreover, it was reported that Alexis had fallen into dissolute and dissipated habits and could not be trusted with money. In 1852, Beaumont made his last appeal to Alexis; the following year Beaumont died.

After Beaumont's death in 1853, Alexis becomes more difficult to trace. It seems that in about 1856

he was exhibiting himself at medical schools in the eastern United States. In 1870 he was in Cavendish, Vermont with his wife and their four married children, earning his living by chopping wood. From 1876 to 1879 they were in Oakdale, Massachusetts, where some of the family were working in a cotton mill. Early in 1879 Alexis returned to Canada and settled at St. Thomas with one of his children. Here he spent his last days. His wife and the other children remained in Oakdale.

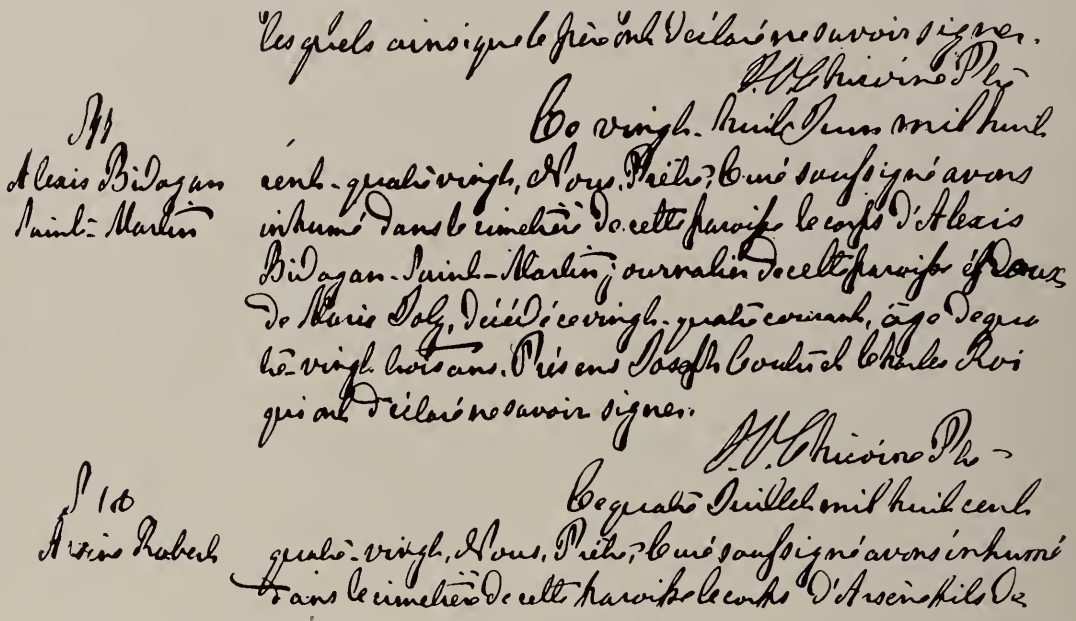


Fig. 1. Record of burial of Alexis St. Martin.

During 1879, Rush Medical College—after locating Alexis at St. Thomas—bargained for his services as an experimental subject. This episode has been described in detail by Peckham.[10] Alexis refused to accept the conditions offered and added that he was too old and sick to make the trip to Chicago. This may well have been true; he was then eighty-five years of age. However, the *Canada Medical and Surgical Journal* of August 1879[1] recorded that Alexis' health was good. This note was published anonymously; probably it was written by Osler.[3] Since it is not widely known, I reproduce it here in full:

> Alexis St. Martin, famous in physiological works for the experiments of Dr. Beaumont, is still alive, and at present a resident of St. Thomas, Joliette county, Province of Quebec, Canada, and is seventy-eight years old. The wound in his stomach has never closed, and at present the opening in his side is nearly an inch in diameter. His general health appears not to have been in any way affected by the curious wound in his side, but has always been excellent. For his age he is now quite strong and hearty. He has been the father of twenty or more children, of whom four are now living. He has always been a hard worker, and never suffered from lack of digestion.

During his last days at St. Thomas, Alexis spoke of his travels in Europe and in a letter written in 1879 he said he had been to Europe with Beaumont.[10] These statements cannot be believed. It is certain that Beaumont never took him abroad and there is no evidence that he went abroad after Beaumont's death. It is true that when Beaumont obtained a furlough in the fall of 1832, his stated purpose was to go to Europe with Alexis. However, Beaumont changed his mind and spent most of his leave in Washington. Also proposals were made in England and France to bring Alexis to those countries but nothing came of them. Perhaps in his old age the memory of these plans led Alexis to believe he had been to Europe.

On June 24, 1880, Alexis St. Martin died at the age of eighty-six. Osler, who was then in Montreal, tried to obtain permission for an autopsy and secure the stomach for the Army Medical Museum in Washington. The family refused. On the day of Alexis' death a warning telegram came to Osler from the local doctor, saying "Don't come for autopsy; will be killed."[3] The body was kept at home for four days during a spell of hot weather to allow decomposition to set in. As a result, the

coffin had to be left outside the church at the funeral service on June 28. The corpse was buried eight feet below the surface of the ground and it was rumoured that the coffin was covered with stones. The warning telegram to Osler was followed by an announcement that the grave was being guarded every night by men armed with rifles.

Burial was in the cemetery of the Roman Catholic Parish Church at St. Thomas. The record of burial, signed by the Reverend Curé Chicoine, is shown in Figure 1. Translated into English, it reads as follows:



Fig. 2. Parish Church and Cemetery at St. Thomas from the front.

The twenty-eighth of June, 1880, we Priest and Curé undersigned have buried in the cemetery of this parish the body of Alexis Bidagan Saint Martin, labourer of this parish, husband of Marie Joly, died the twenty-fourth of this month, aged 83 years. Presence of Joseph Coutruel Charles Roi who have declared that they do not know how to sign.

As in other records, Alexis' age was underestimated.

Photographs of the present Parish Church at St. Thomas and a part of its cemetery are shown in Figures 2 and 3. Alexis St. Martin's grave is in this cemetery but its exact location is unknown. It is not marked and the parish records give no clue. In view of the fears that the body might be disinterred, perhaps the grave was never marked. We hope to obtain information about this from



Fig. 3. Parish Church and Cemetery at St. Thomas from the back.

surviving relatives. If the grave can be located, the Canadian Physiological Society may be able to erect a memorial over it. If it cannot be located, we may seek permission to place a tablet on the wall of the church.

Much has been written of Dr. William Beaumont and his pioneering studies. He justly has many memorials. Alexis St. Martin, too, deserves to be remembered. Some historians have dealt unkindly with him. Luckhardt, referring to a letter from Alexis to Beaumont, described it as "written by the surly, irresponsible, pecunious, ungrateful ward and human guinea pig to his solicitous, merciful, and generous benefactor."[6] Surely this is unfair. Alexis was a voyageur, one of that hardy breed of men who could take a canoe anywhere there was water and, when water ended, carry it to the next place where water began. He was uneducated and was even unable to write; in all his correspondence, others wrote for him and often he signed by making his mark. He could hardly be expected to understand the importance of Beaumont's work. Certainly he had reason to be grateful to Beaumont, who had saved his life and

(Continued on Page 765)

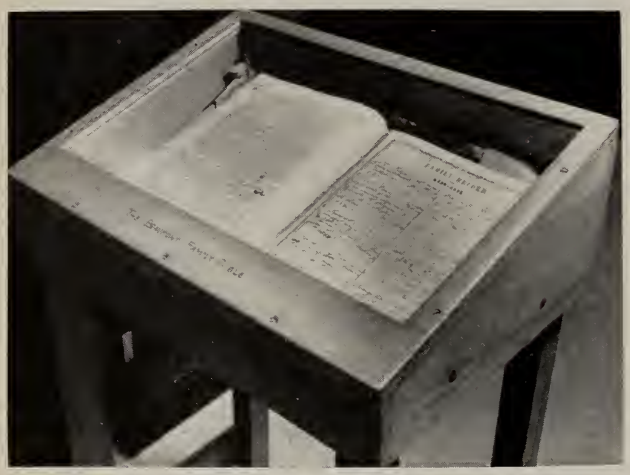
Centers of Beaumont Interest

By Alfred H. Whittaker, M.D.
Detroit, Michigan

THE importance of Dr. William Beaumont's studies of the physiology of digestion is emphasized by the number of historic collections, societies, hospitals, and army medical facilities named in his honor.

As an army medical officer, he was stationed in many localities, leaving in each one an imprint of his character and personality.

The experiments were carried on during the several two-year periods during which St. Martin remained in this country, and each locality in which these two men, Beaumont and St. Martin, collaborated continues to treasure the brief period of their stay.



The William Beaumont Family Bible, protected by a special exhibit case, designed and constructed in native pine wood by William M. LeFevre, M.D., Muskegon, Michigan, is a gift of May Beaumont Brotherton of Elkhorn, Wisconsin, and is on exhibition in the Beaumont Memorial on Mackinac Island.

Beaumont Memorial, Mackinac Island, Michigan

At Mackinac Island, Michigan, the doctors of Michigan have restored the building which was the American Fur Company's retail store, in which Alexis St. Martin was accidentally injured and the famous gastric fistula produced. This is the Beaumont Memorial and is part of an extensive historic restoration.†

The Beaumont Memorial is architecturally French habitant in flavor. The lower floor consists of two rooms, the larger furnished with authentic French-Canadian furniture of the 1822 period. There are maps, ceramic objects, the Dean Cornwell painting of Beaumont and St. Martin. The second room is equipped with Beaumont furniture as a bedroom. On the upper floor is a medical history museum with Beaumont instruments and equipment used by early American physicians, a birch bark canoe and the Beaumont family Bibles.



On July 10, 1900, at a joint meeting of the Upper Peninsula Medical Society and the Michigan State Medical Society, a monument was erected and dedicated to the memory of Dr. William Beaumont. The monument is in Fort Mackinac, facing over the Straits, just to the West of the officers' quarters and not far from the Fort Hospital.

Inscription

Near this spot Dr. William Beaumont, United States Army, made those experiments upon Alexis St. Martin which brought fame to himself and honor to American medicine. Erected by the Upper Peninsula and the Michigan State Medical Societies, July 10, 1900.

In Fort Mackinac, on the Island, is a monument to Beaumont given to the State of Michigan by the Michigan State Medical Society and the Upper Peninsula Medical Society, dedicated in 1900.

Also in the Fort Museum, there is a Beaumont exhibit which is visited by thousands of visitors annually.

†See page 735.



WILLIAM BEAUMONT, M.D.
1785-1853

Painted by Mr. Deane Keller
for the Beaumont Room
of the
Wayne County Medical Society
Detroit

Beaumont Room, Wayne County Medical Society, Detroit

In Michigan, at the Beaumont and Medical History Room of the Wayne County Medical Society, Detroit, is one of the country's finest collections of material of Beaumont association interest. In this collection are contemporary portraits on ivory of Dr. and Mrs. Beaumont, instruments used by the doctor, copies of the first editions of books dealing with the experiments and a fine collection of works on physiology.

In 1922, the Beaumont Lecture Series was founded and each year a lecturer reports original research which he has carried out, usually in the field of applied science. There is a fine portrait of Beaumont* painted by Mr. Deane Keller of the Fine Arts Department of Yale University.

William L. Clements Library, Ann Arbor, Michigan

In nearby Ann Arbor, at the University of Michigan, due to the interest of Dr. Frederick A. Coller, Dr. C. Thomas Flotte and Mr. Howard Peckham, Director of the Clements Library, there has for years been created in the Medical School an active interest in the Beaumont History. Doctor Coller obtained for the Clements Library, some years ago, *(Bulletin XXVI* of the William L. Clements Library, 1937) four letters of St. Martin. These cover the efforts of Rush Medical College to secure the services of St. Martin for experimental purposes and his replies.

Fort Crawford I, Prairie du Chien, Wisconsin

Beaumont having been transferred to Fort Crawford at Prairie du Chien, Wisconsin, St. Martin returned from Canada and the experiments were continued.

In Prairie du Chien, there is a foundation dedicated to raising of funds for a Beaumont Museum. The present Museum, Prairie des Chiens at the Villa Louis on the site of Fort Shelby, Fort McKay and Fort Crawford I contains material relating to Dr. Beaumont who at one time was stationed at the Fort Crawford I Hospital. The interest in this exhibit is enhanced by a diarama depicting Beaumont and St. Martin, painted and constructed by the artist Cal Peters. Enthusiastic supervision by the curator, Miss Florence Bittner, insures continued interest in the fifty-six experiments performed at Fort Crawford I.

Recently, the William Beaumont Memorial Foundation was consolidated with the History Section of the Wisconsin State Medical Society.



Portraits of Dr. and Mrs. William Beaumont, painted on ivory by a contemporary artist. . . . History Room of the Wayne County Medical Society, Detroit.

The first edition of Experiments and Observations on the Gastric Juice and the Physiology of Digestion by William Beaumont, M.D., was published at Plattsburgh, New York, in 1833. There was a reissue in 1834 published at Boston, Massachusetts.

Old Fort Howard Museum, Green Bay, Wisconsin

At the Old Fort Howard Museum, Kellogg and North Chestnut Streets in Green Bay, Wisconsin, a two-room exhibit of Beaumont furniture and other

*See insert photograph in color.

A COLLATERAL LINEAGE

JOHN BEAUMONT (BROTHER OF DR WILLIAM BEAUMONT)
DARWIN BEAUMONT 1793-1871 m EMMA BUDDINGTON
- LIZZIE BEAUMONT SMITHINGELL 1846-1935
  - LUCILE SMITHINGELL YOUNG
  - ADDIE SMITHINGELL STOKES
- MINNIE BEAUMONT COLEMAN 1868-1942
  - HAZEL COLEMAN LANDIS
  - ROBERTA COLEMAN BAKER
- LILLIE BEAUMONT CULVER 1870-1935
  - EARL CULVER
- FLORENCE BEAUMONT 1877-1955
- LOUIS BEAUMONT 1878-1892
- BEULAH BEAUMONT 1880-1892
- DARWIN OSCAR BEAUMONT 1880-1892
- NINA BEAUMONT 1885-1952
- RUTH BEAUMONT WILSON 1887-1959
  - DAWANE WILSON
- WALTER BUDDINGTON BEAUMONT 1889-1889

ANCESTORS AND DESCENDANTS OF WILLIAM BEAUMONT, M.D.

WILLIAM BEAUMONT B - - D - - 1638 M - - LYDIA DANFORTH B - - D - -
CAME TO SAYBROOK, CONN. 1640

SAMUEL BEAUMONT B - - D - - M - - HESTER BUCKINGHAM B - - 1668 D - -

SAMUEL BEAUMONT B - - D - - M - - ABIGAIL DENNISON B 1-27-1716 D - -

WILLIAM BEAUMONT B - - D - - M - - SARAH EVERETT B - - D - -

SAMUEL BEAUMONT B - - D - - M - - LUCRETIA ABEL B - - D - -

WILLIAM BEAUMONT, M.D. B - - 1785 D 8-21-1853 M - - 1821 DEBORAH GREENE PLATT D - - 1870

THE BEAUMONTS WERE OF FRENCH (HUGUENOT), NORMAN, AND ENGLISH STOCK.

SIR ROGER de BEAUMONT CREATED EARL OF WARWICK ABOUT 1085 A.D. BY WILLIAM THE CONQUEROR.

GENEALOGY OF WILLIAM BEAUMONT BASED ON EARLIER STUDIES BY ARNO B LUCKHARDT, M.D.

COLLATERAL LINEAGE AND MORE RECENT DESCENDANTS' RECORDS BY ALFRED M. WHITTAKER, M.D.

THE LINE OF ANCESTORS AND DESCENDANTS HERE DEPICTED IS THE IMPORTANT BEAUMONT LINEAGE. FOR DETAIL AND SOURCE MATERIAL SEE RECORDS ON FILE IN THE BEAUMONT MEMORIAL ON MACKINAC ISLAND.

CHART DRAWN BY MARGARET ANN GRANT

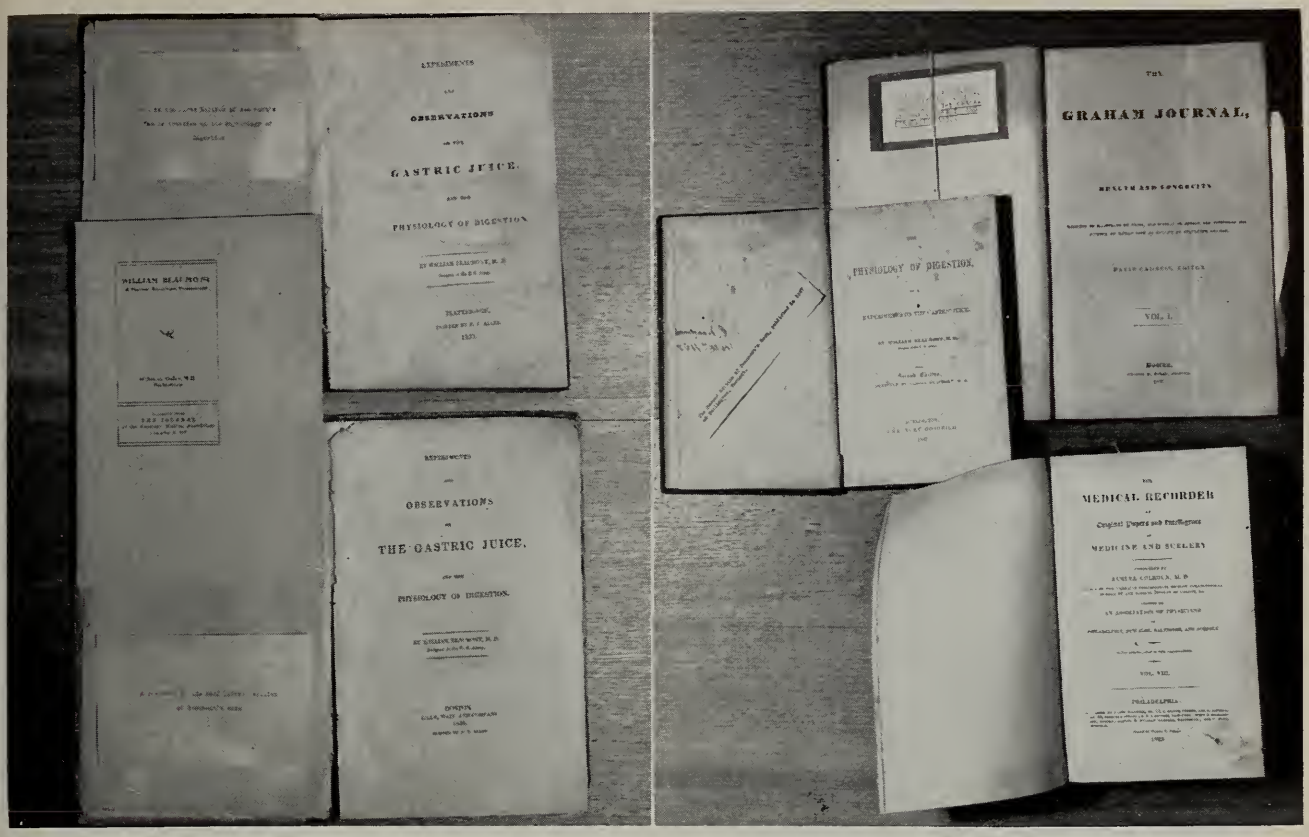
SARAH BEAUMONT B 6-8-1822 D 2-16-1913
- M. 1844 (1) LIEUT. DOUGLAS S. IRWIN D. 1846
  - LUCRETIA IRWIN B 2-9-1845 D 2-27-1916
    - M. LIEUT. YATES D. 1876
      - MARGARET RUTH BEAUMONT B 6-19-1886
        - M 1-29-1912 OTTO M. BROWN
          - JULIA ANN BROWN B 11-9-1914
            - M 7-26-1941 LAWRENCE G. BATTLE
              - LAWRENCE BEAUMONT BATTLE B 1-9-1943
- M 10-28-1857 (2) ISAAC KEINE

WILLIAM W BEAUMONT B. 3-16-1824 D. 10-19-1826

ISRAEL GREENE BEAUMONT B 8-31-1823 D 10-16-1901
- M - JULIA PELTON
  - MAY BEAUMONT B 5-20-1855 D. 11-28-1934
  - ETHAN ALLEN BEAUMONT B 5-7-1861 D. 9-21-1938
    - M 3-13-1887 KATHERINE RHODE D 5-16-1942
      - KATHERINE LILLIAN MAY BEAUMONT B 2-13-1892
        - M 5-9-1912 G. A. BROTHERTON
          - GEORGE BEAUMONT BROTHERTON B 4-28-1913 D 5-2-1950
            - M 18-5-1940 ANNA DOGARIN
              - JO ANN BROTHERTON B 8-7-1942
              - GEORGE CLARE BROTHERTON B 8-6-1944
                - JOHN BEAUMONT BROTHERTON B 2-15-1966
          - RICHARD W. BROTHERTON B 10-6-1915
            - M 18-25-1940 DOLORES Mc CANN
  - SOPHIE BEAUMONT B 11- -1863 D 1-1-1934
  - WILLIAM BEAUMONT B 7-19-1857 D 10-31-1878
  - JULIA BEAUMONT B 10-19-1871 D 9-6-1933
  - DOUGLAS IRWIN BEAUMONT B 9-2-1859 D 1-17-1891

LUCRETIA BEAUMONT B 7-26-1827 D 1-2-1850
- M 2-22-1848 HERMAN D CANFIELD
  - WILLIAM BEAUMONT CANFIELD B 1848 D. 1850

M 1-29-1900 WILLIAM NICHOLAS CUMMINGS D 6-8-1940
- WM. B. CUMMINGS B 12-16-1900 D 10-19-1903
- MARGARET CUMMINGS B 6-3-1902
  - M 6-3-1934 KENNETH KESSLER
    - DEBORAH BEAUMONT KESSLER B 2-12-1937
    - DOUGLAS WAYNE KESSLER B. 8-8-1941
    - WILLIAM BEAUMONT KESSLER B 11-4-1942
- JOHN CAMPBELL CUMMINGS B 6-2-1904
  - M 3-1-1934 DOROTHY ISABELLA MOIR ADAM
    - NANCY CAROLINE CUMMINGS B 9-8-1940
    - MARY RUTH CUMMINGS B 5-22-1942
- JULIANA BEAUMONT CUMMINGS B 8-9-1909
  - M 1934 JAMES H. WILLIAMS
    - JAMES HENRY WILLIAMS B 2-28-1937
    - JOHN WILLIAMS B 1-30-1941
- DOUGLAS CUMMINGS B 11-15-1905
  - M 4-10-1938 MARGARET WILSON



The first report of Beaumont's experiments appeared in the *Medical Recorder*, 1825. A series of articles on Beaumont's experiments appeared in the Graham Journal of Health and Longevity, 1837. The second edition of The Physiology of Digestion was published in Burlington, Vermont, in 1847.

possessions of Dr. Beaumont represents probably the most extensive collection in existence. There are two desks, office furniture, the doctor's book plate and rare books. At the Kellogg Public Library is a collection of books and bulletins of Beaumont interest. The Board of Regents of the Museum is custodian; Miss Katherine E. Byram is secretary to the Board.

Washington University, St. Louis, Missouri

In St. Louis, Missouri, at the School of Medicine of Washington University Library, at Euclid Avenue and Kingshighway, is the collection of manuscripts, letters and books of Dr. Beaumont collected by Dr. George Dock, and given to the Medical School in 1914 by Miss L. Beaumont Irwin, a granddaughter. There is also the manuscript of Mr. Myer's biography of Beaumont.

There are many manuscripts and notebooks kept by Beaumont as a student and during the War of 1812, his license to practice medicine and a letter from St. Martin.

All students, both graduate and undergraduate, are given instructions in the use of the library and are introduced to the Beaumont documents and history. Much of this material is presented in a cabinet in a room conveniently located in the main reading room, where students, faculty and visitors may browse.

Many of the local students are already acquainted with Beaumont if they are graduates of the high school bearing his name. There is also a street and a medical building named after him.

An annual event on November 21, the anniversary of his birth, is the pilgrimage to Dr. Beaumont's grave in Bellefontaine Cemetery, directed by the William Beaumont Memorial Committee of the St. Louis Medical Society. This Society presented a bed of Beaumont's to the Beaumont Memorial at Mackinac Island.

Participating in the ceremonies with the officers and members of the Society are students from the Beaumont High School and various choruses, bugle corps and color guards. A short address is given.

The collection at the Library is under the direction of Miss Elaine Harvey, acting librarian.

Mrs. Marion A. Murphy, former librarian, deep-

ly interested in Beaumont history, presented the *Annals of Medical History* file to the Beaumont Room of the Wayne County Medical Society, Detroit.



The William Beaumont commemorative medallion designed and distributed XIII International Physiological Congress, Boston, 1929, was presented as a gift to the History Room of the Wayne County Medical Society, Detroit, by Owen H. Wangensteen, M.D., Director, Department of Surgery, Medical School of the University of Minnesota.

The Osler Library, McGill University, Montreal

Dr. Osler was at McGill University in Montreal when St. Martin died. He contributed greatly to the appreciation of Beaumont. His nephew, Dr. W. W. Francis, librarian of the Osler Library, on October 20, 1958, wrote:

"Perhaps Osler's review of Myer's book might be worth reprinting in whole or in part, 'William Beaumont,' no. 16 in his series "Men and Books" in the *Canadian Medical Association Journal*, 2:1136-8, 1912. He is very landatory, but in the last paragraph points out what 'one misses' in Myer's book.

When Harvey Cushing sent me the 1929 facsimile of Beaumont I pointed out to him that the camera or editor had lied in leaving out from the back of the title page the hyphen which New-York sported up to the middle of last century. On January 15, 1930, Cushing wrote me an amusing letter classing me with my friend, L. L. Mackall, of quaint and blessed memory, whom Garrison called Osler's bibliographic sleuth-hound:

"You are certainly a sleuth with Mackallian powers of observation. The facsimile was made from John Fulton's copy, not from mine, thank heaven. The press so mutilated his *editio princeps* that it was no longer of any value. New York is hyphenated in my copy and I can only imagine that the Harvard Press may have been sufficiently punctilious to have removed the hyphen as a misprint. But why shouldn't New York be hyphenated? I think it should be spelled 'Gnu-York.' . . ."

Mrs. Worthington of the Saranac Lake Free Library sent me two copies of a photo of a page from *The Essex County Republican Annual* (Keeseville, N. Y.) 1893, with accounts of William and Samuel Beaumont below their pictures, the only one I remember to have seen of Sam. I can let you have one of these copies, if you need it.

With warmest regards,
W. W. Francis, M.D., *Librarian*

Beaumont Medical Club, New Haven, Connecticut

At Yale University, in New Haven, there is a fine portrait of Beaumont hanging over the fireplace in the Beaumont Room of the Cushing Medical Library. This is the headquarters of the Beaumont Medical Club, of which L. L. Waters, M.D., is secretary-treasurer. The Club is seeking to acquire the birthplace of Beaumont, which is located on a farm in nearby Lebanon, Connecticut.

Saranac Lake Free Library

On June 4, 1955, Miss Ruth Worthington of the Saranac Lake Free Library, Saranac Lake, New York, who is interested in the history of Dr. Beaumont wrote the following letter, which not only reflects her interest but also that of Mr. Hugh McClellan of the *Moorsfield Press*, Champlain, N. Y.

SARANAC LAKE FREE LIBRARY

Saranac Lake, N. Y.

4 June 1955

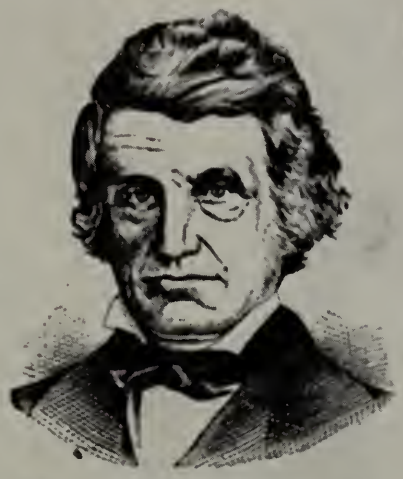
Over the Memorial Day week-end, I journeyed to Montreal, for another visit to the Osler Library and, on my way back, stopped off to chat a few moments with Hugh McClellan, of The Moorsfield Press, Champlain, on the subject of Beaumont. Friends were with me and Mr. McClellan showed them his valuable folder of Beaumont items and told us many interesting things concerning the early days in Champlain. His great great grandfather was Pliny Moore, first settler of Champlain. William Beaumont's uncle, also William, came to settle in Champlain shortly after Pliny Moore arrived, and, as I

believe I told you, previously, that was the reason that the younger William stopped off there at the end of his long journey up from Connecticut.

Sincerely yours,
RUTH WORTHINGTON

P.S.: Mr. McClellan greatly appreciates all the Beaumont material you have sent him. He is very old, and being in his shop finds correspondence difficult, I imagine. He is official historian of the Town of Champlain.

SKETCHES AND PORTRAITS OF NOTED MEN AND WOMEN



Dr. William Beaumont.

AN EMINENT AUTHORITY ON THE SUBJECT OF DIGESTION, WHOSE MARVELOUS EXPERIMENTS IN THE STOMACH OF ALEXIS ST. MARTIN GAVE HIM A WORLD-WIDE FAME.

The story of Alexis St. Martin ranks among the most interesting in modern scientific literature, and has been read by gentlemen of the medical profession throughout the civilized world Probably there is not a physician, young or old, or a medical student, well advanced, reading this article, that has not become familiar with the name of Dr. Beaumont on account of the scientific data which he gave to the world by his experiments on the stomach of St. Martin.

Born in Connecticut in 1796. Practiced two years in Burlington, Vt., and one year with Dr. Chandler of Champlain. Went to Plattsburgh early in the century, appointed surgeon in the U. S. Army in 1812, in which position he served some 25 years. He died in St. Louis in 1853

His book entitled "Experiments and Observations on the Gastric Juice and the Physiology of Digestion," is a standard work, and acknowledged authority all over the civilized world, as he was enabled to make experiments and discoveries which no other man ever made



Dr. Samuel Beaumont.

ASSISTANT TO HIS COUSIN, DR. WILLIAM BEAUMONT, IN THE ST MARTIN EXPERIMENTS—"BELOVED PHYSICIAN."

[Contributed.]

The subject of this sketch was the son of William and Mary Beaumont, and was born at Champlain, Clinton Co., N. Y., on March 1st, 1791.

During the interval between the years 1815 and 1819, Samuel Beaumont undertook the study of medicine and was a student with and under the direction of his cousin, Dr. William Beaumont, a surgeon in the U. S. army.

In the year 1832, Dr Beaumont devoted some portion of his time to the work of assisting Dr William Beaumont, in continuing a series of remarkable experiments (which had been commenced by Dr. William Beaumont in 1825), on the action of the gastric juice in the human stomach. The subject of these experiments was one Alexis St. Martin, the contents of whose stomach could be viewed through an opening in his side, resulting from a gunshot wound, which had healed without closing. The history of these novel experiments were embodied in a very interesting and valuable work, the first edition of which was published by Dr. William Beaumont, in the year 1833.

In the arrangement and preparation of this work for publication, Dr William Beaumont was largely assisted by Dr. Samuel Beaumont, of which assistance a handsome acknowledgement appeared in the preface of the work

Sketches of Dr. William Beaumont and Dr. Samuel Beaumont as published in *The Essex County Republican Annual* in 1893. W. Lansing & Son, McKeesville, N. Y.

The University of Chicago Library, Chicago, Illinois

Miss Eleanor Johnson, bio-medical librarian of the University of Chicago, on September 30, 1958, supplied the following information concerning the Beaumont Collection of the University of Chicago.



Birthplace of William Beaumont, Lebanon, Connecticut

THE UNIVERSITY OF CHICAGO LIBRARY
Chicago, Illinois

September 30, 1958

Dr. Arno B. Luckhardt's article, "The Dr. William Beaumont Collection of the University of Chicago," donated by Mr. and Mrs. Ethan Allen Beaumont of DePere, Wisconsin, in the *Bulletin of the History of Medicine,* VII (May, 1939), 535-563, is completely exhausted.

Mr. Robert Rosenthal, the Head of the Department of Special Collections, has prepared a check list of the Beaumont Collection.

The portraits of Dr. William Beaumont and his wife, Mrs. Deborah Beaumont, hang in the Billings Medical Library, where portions of the collection are displayed in rotating exhibits. The bulk of this treasured collection is maintained in the Department of Special Collections, where it serves to remind historians and medical men alike of a remarkable achievement which originated in the Middle West but which remains a landmark in international medical history.

Sincerely,
Eleanor Johnson
Bio-Medical Librarian

The William Beaumont Collection

The William Beaumont Collection contains the correspondence and various artifacts of Dr. William Beaumont (1789-1853), pioneer American physician and physiologist, and of the Beaumont family. The correspondence includes thirty-six letters dating from 1834 to 1853 of Dr. Beaumont's and twenty-one letters of the Beaumont family post-dating his death. Of particular interest in the correspondence are three letters from Alexis St. Martin to Dr. Beaumont and to Israel Greene Beaumont, the doctor's son, and letters to Dr. Beaumont and to the Beaumont family from Ethan Allen Hitchcock pertaining to events of the Mexican and Civil Wars. Miscellaneous material includes printed and mansucript memorabilia of Dr. Beaumont, various legal documents of the doctor and his family, photostats of Beaumont manuscripts in the William L. Clements Library and the Washington University Medical School of St. Louis, three books including a first edition of Beaumont's "Experiments and Observations on the Gastric Juice," and paintings and photographs of Dr. Beaumont, his family and friends, and various places associated with him. Also included are twenty-nine artifacts, including Dr. Beaumont's surgical instruments, pistol, and watch.

This collection was presented to the University of Chicago Library by Mr. and Mrs. Ethan Allen Beaumont of DePere, Wisconsin, in 1936. For other descriptions of the collection, see: Arno B. Luckhardt, "The William Beaumont Collection of the University of Chicago," in *Bulletin of the History of Medicine,* Vol. VII, no. 5, May, 1939, pp. 535-563; "The Beaumont Meeting," *The Courier,* Number 7, January, 1937.

In England, Dr. Donald Hunter of 132 Harley Street, London, W.I. has expressed deep interest in the history of Beaumont and St. Martin.

Dr. Pedro Salles, Tymbiras, 1272 Bello Horizonte, Brazil, has carried the Beaumont story to South America.

Middlebury College Library, Middlebury, Connecticut

In the Library of Middlebury College, there is a collection of Beaumont material, and the staff is interested in everything associated with Dr. Beaumont and Alexis St. Martin.

Observations of Some Physiologists Who Preceded Beaumont

By Alfred H. Whittaker, M.D.
Detroit, Michigan

IN writing of Dr. William Beaumont's studies on Alexis St. Martin, authors are found usually to attribute great originality to Beaumont in devising his experiments. Thus Beaumont in his first series of experiments concludes, "These demonstrate, at least, that the stomach secretes a fluid which possesses solvent properties. The change in the solid substances is effected too rapidly to be accounted for on the principle of either maceration or putrefaction."

The second series is dated at Fort Crawford, Upper Mississippi, June 20, 1829. St. Martin had left Beaumont four years before and had now returned from Canada. The experiments were resumed. "Twenty minutes after eating, the stomach contents were removed and in a 90 degree water bath, in a vial, digestion was observed to continue at the same rate as in the stomach. After five hours the food was completely digested."

Although it is common knowledge that there had been previous gastric fistulae, no physiologist had taken advantage of the condition to study the physiology of digestion.

A conclusion is reached in Beaumont's "Experiments and Observations," page 158: "These experiments (thirty-seventh and thirty-eighth) are continued proofs of the solvent action of the gastric juice."

Earlier physiologists used a method of numbering their experiments, and in their reports refer to numerous physiologists. Because of the similarity of Beaumont's methods, it can be accepted that he was familiar with the work of at least several investigators, and by their reports and references, the work of many others.

Reference to the attached bibliography will supply the names of physiologists, whose studies of digestion were available to physicians in the early nineteenth century.

Three of these series of experiments antedating Beaumont are those of Spallanzani, Reaumur, and Spencer.

Abbé Lazaro Spallanzani

(Spallanzani, Abbé (lazaro), 1729-1799, Dissertations/relative to the/Natural History/of/Animals and Vegetables./London, 1784).

Spallanzani, a great Italian anatomist and physiologist, was Royal Professor of Natural History in the University of Pavia, Superintendent of the Public Museum, and Fellow of various learned societies.

His work is a confutation of the doctrine of spontaneous generation which he was "one of the first to dispute" with conclusions "similar to those expressed by Pasteur nearly a century later."†

Spallanzani, in speaking of his course of public demonstrations in 1777, repeated "those celebrated experiments of the Academy of Cimento, that show the astonishing force with which the stomach of fowls and ducks pulverize empty globules of glass in the space of a few hours."

"Finding them exact I conceived the design of extending them to other classes of birds and then to animals, not neglecting Man, the noblest and most interesting of all. . . . But these physiological researches laid me under the necessity of examining the most celebrated systems concerning Digestion, and of inquiring whether it is effected by trituration, by a solvent, by fermentation, or by an incipient putrefaction: or whether, according to the opinion of the great Boerhaave, it rather depends upon all these causes operating in conjunction. Thus I was obliged to enter anew upon a question of very ancient date, and though discussed at great length by many physiologists, yet not in my opinion sufficiently elucidated; since most writers have chosen to follow the delusive invitation of theory and hypothesis, rather than the unerring direction of decisive experiments."

Spallanzani, in writing of his experiments and observations dealing with gastric physiology, first refers to the work of Reaumur whom he points out had invented and carried out methods of determining if the comminution and solution of food is effected by the gastric muscles. This great

†A Medical Bibliography. Fielding H. Garrison, M.D., and Leslie T. Morton, M.D. London: Grafton and Co., 1943.

naturalist, in his two excellent memoirs on this subject, devised metallic tubes, open at both ends, filled the natural foods, as grains, were introduced into the stomach of "gallinaceous fowls." No change in the grain occurred in twenty-four hours, even when perforations were added to the metal tubes. If not strong, however, the tubes and even "hollow globules of glass" were crushed, with no injury to the mucosa. A long series of experiments followed using sharp and hard substances with the same results.

The conclusion was that food must be broken down by muscular action before digestion takes place.

The tubes were then filled with food which had undergone crushing and mixture with stomach contents. Spallanzani remarks:

"Are we to suppose, that digestion depends on this action (mechanical action of the gastric muscles) and that simple trituration converts the ailment into that pultaceous mass denominated Chyme? Or rather, that this mass is generated by means of juices either prepared or collected in the stomach, and that trituration is a co-operating, but not the immediate cause of digestion?"

The tubes were then filled with bread which had been moistened with "chyme" and which had undergone "trituration," to determine if the gastric juices convert into "chyme" the food which trituration had prepared for digestion. After fourteen hours no bread remained in the receivers (tubes).

Later experiments demonstrated that bread and beef placed in the gastric juice of a crow in a phial exposed to the sun resulted in digestion of the food.

The first series of experiments (102 various types) included a study of many types of birds and included different sections of the alimentary tract, temperature and types of food, leading to the conclusion that a mechanical apparatus capable of breaking, triturating, and thus pre-disposing food for digestion was necessary "and such in reality are the gastric muscles in fowls."

The experiments were then extended to frogs and water-newts, two species of small carnivorous animals, to snakes and fish, and then to larger animals. It is pointed out that ruminating animals by regurgitating food provide the mechanical trituration in the mouth provided by the stomach of fowl.

Spallanzani in discussing experiment No. 234 states:

"Modern chemists have distinguished three degrees or species of fermentation, the vinous or sweet, the acetous, and the putrid. . . . It remains to be inquired, whether this function (an intestine motion excited by heat and a proper degree of moisture) is connected with a principle of acidity, as some suppose, or of putrefaction, according to others."

A series of experiments followed on animals and on Spallanzani, himself, to investigate the presence of acid and the findings, "prove the presence of an acid principle in the stomachs of some animals and man himself."

After 264 experiments, the following conclusions are reached: (1) of the three species of fermentation, none takes place in digestion; (2) though this function is sometimes accompanied with an acid, this principle disappears entirely toward the conclusion of it; (3) putrefaction never in health attends digestion; (4) the gastric fluid is a real antiseptic.

Concluding, Spallanzani states:

"I only pretend to shew (sic), that not the smallest sensible fermentation takes place in the stomach of animals or man."

René Antoine Ferchault de Reaumur

(Reaumur, Rene Antoine Ferchault de, 1683-1757. French Natural Philosopher and Inventor of the thermometer. Sur la Digestion des Oiseaux Mémoires de l'Académie Royale, Paris, 1752, pages 266-307; 461-495.)

The experiments of Reaumur were carried out and recorded in sequel, not designated by number. The devising of metal and glass containers for food introduced into the stomach is described, the anatomical parts of the digestive apparatus of fowl and birds and the possible function of each is considered with accurate description of the appearance of the gastric contents and changes produced in food. No conclusions were recorded.

In the "Memoires" trituration is considered and attention is paid to the muscle coats of the digestive area.

The importance of chewing is emphasized and fowl having no teeth are provided with a gizzard to crush food to prepare it for digestion. The effect of gastric fluids is noted on food protected by tubes, exposed to the fluids for various length of time.

In the second "Memoir," digestion of meat in voracious birds such as the buzzard is considered. The experiments progress to dogs and then to sheep in 1752. Since the gastric juice did not

penetrate into the food in tubes, a slightly salty taste was noted and litmus paper was not changed so it was concluded there was no acid present.

Thus the information was not accurate but the experiments were valuable as a starting point for future research. It seems probable that Beaumont was familiar with this work and no doubt was helped in his observations made from his experiments on St. Martin.

Oliver H. Spencer

(Spencer, Oliver H., New Orleans physician; honorary member of the Phila/delphia Medical and Chymical Societies. Experiments and Observation/on/Digestion:/ an Inaugural Essay,/for the degree of/Doctor of Medicine./Printed at the office of the Gazette of the/United States./Philadelphia: 1802.)

Spencer in presenting his observations followed the methods of numerous earlier physiologists by listing experiments by number accompanied by the deductions derived from the findings.

The studies by Spencer were made twenty years before the first Beaumont experiment. References are made to the work of Reaumur, Spallanzani, Cullen of Edinburgh, Fordyce, Roebuck of the Island of St. Croix, Boerhaave, Bartholin, Stevens, and Hunter the translator of the Dissertations of Spallanzani, which would indicate the availability of a considerable body of knowledge in the field of gastrointestinal physiology.

Spencer opens his essay by reviewing the Anatomy of the Stomach remarking:

"Its arteries are derived, principally, from the coeliac; and as no glands are to be met with in the substance of the stomach, agreeable to Morgagni, Haller, and Sabbatier, it is probable that the gastric juice is poured out by the minute branches of these arteries which are interspersed throughout the coats of this organ. . . . Much controversy has prevailed in every age, respecting the manner in which digestion is begun and carried on in the stomach."

Discussion follows of trituration or the mechanical forces and reference is made to fermentation and putrefaction. Detailed description follows of the experiments of Reaumur and Spallanzani, and Spencer introduces his own experiments by stating:

"In order to determine whether an acid is always, or even frequently, present in the stomach, upon the establishing or contradiction of which the whole doctrine which we are examining depends, I had recourse to the following experiments."

Then follows a series of six experiments.

In experiment No. 1 and No. 2 several hours after eating, in male adults, emesis was produced. The stomach contents did not change the color of blue litmus paper. In experiments No. 3 to No. 6, dog stomachs were removed several hours after eating and the tests used showed no acid to be present.

The Doctor concludes:

"From the result of these experiments, conducted with much care and attention, we infer, that when the stomach is in a state of health, the appetite good, and proper food only employed, digestion goes on rapidly, without the aliment undergoing any fermentation by which an acid is produced. . . : In the diseased state of the stomach, called dyspepsia, we suppose, that the action of the vessels pouring out the gastric liquor for the purpose of digestion, is sometimes excessive."

The arguments in favor of the theory of animal putrefaction are next considered. Putrefaction occurring during and constituting a part of the process of digestion, in the opinion of Doctor Spencer, required but little labor to refute, and he states his reasons for this view.

The essay is continued with references to the work of other physiologists, both old and contemporary. The absence of digestion of the stomach wall is noted until there is lost "the vital principle of life" and the destruction of all animals of various kinds except those generated in the alimentary tract. These too when they lose the living principle become subject to the digestive powers of the stomach.

Spencer concludes:

"It is only by the aid of facts and experiments that we can arrive at truth, particularly in researches connected with natural philosophy and medicine. The physiologist, who would instruct himself, or teach others, by conjecture alone, had better do nothing, but leave the subject for others, possessed of more industry or more leisure than himself."

From the conclusions of these investigators and of many others, it is evident that Beaumont provided the first real proof that digestion takes place as the result of several factors in various parts of the alimentary tract and that a chemical function is essential.

George Rolleston, M.D., in his exhaustive review of advances in physiology, before the thirty-sixth annual meeting of the British Medical Association in 1870, did not refer to Beaumont although he did refer to the Meisner-Auerbach plexus. However, Beaumont's contribution to the knowledge of the physiology of digestion remained the most important until supplemented by the work of Pavlov.

Bibliographic Notes of Beaumont Interest

Adelon, N.—P., D.M.P. Physiologie de L'Homme (3 vol.) Compere Jeune, Libraire-Editeur. Paris 1829.

Alvarez (Walter Clement). (1884- .) The mechanics of the digestive tract. New York, P. B. Hoeber, 1922.

Auerbach (Leopold). (1828-97.) Uber einen Plexus gangliosus myogastricus. Jahresb. d. schles. Gesellsch. f. vaterl. Cultur, 1862, Breslau, 1863, xl, 103.
Auerbach's plexus.

Baird, D. Georgü, SS. T. P. Disputatio Medica Inauguralis de Hepatitide. Ercudebat Joannes Moir, 1820.

Baird, D. Georgü, SS. T. P. Disputatio Medica Inauguralis quaedam de Hepatitide Acuta. Excudebat P. Neill: Edinburgi, 1820.

Baird, D. Georgü, SS. T. P. Dissertatio Medica Inauguralis. Excudebat Joannes Moir, 1820.

Bargen, J. Arnold, M.D. Twenty-Fourth Annual Beaumont Lecture. Wayne County Medical Society. Detroit Medical News vol. 36, No. 26, Feb. 1945.

Bartholin (Thomas). (1616-80.) De medicis poetis dissertatio. Hafniae, D. Paulli, 1669.
——. De morbis biblicis miscellanea medica. Francofurti, D. Paulus, 1672. A study of the diseases mentioned in the Bible.

Bartholin, Thomas Vid. Epist. de mot. chyl. et sang. ad.

Beaumont (William). (1785-1853.) Experiments and observations on the gastric juice and the physiology of digestion. Plattsburgh, F. P. Allen, 1833. Alexis St. Martin, a Canadian half-breed who had sustained a gastric fistula, was treated and investigated by Beaumont. With his human medium, Beaumont was the first to study digestion and the movements of the stomach *in vivo*. His work on the subject was the most important before Pavlov.

Beaumont, Dr. William. Citizen of the Month Bul., Detroit Historical Society, vol. x, No. 6, April 1954.

Bernard, Claude M. Lecons de Physiologie Experimentale Applique a la Médecine (2 vol.) Chez J.-B. Bailliere. A Paris, 1855.

Bernard, (Claude). (1813-78.) De I'origine du sucre dans I'économie animale. Arch. gén. de. Méd., Paris, 1848, 4 sér., xviii, 303-19. Bernard's first communication regarding his investigation of the glycogenic function of the liver, reprinted, with translation, in Med. Classics, Baltimore, 1939, iii, 552-80.
——. De suc pancréatique et de son role dans les phénoménes de la digestion. C. R. Soc. de Biol., 1849, Paris, 1850, i, 99-115.
Discovery of the digestive action of the pancreatic juice. Reprinted with translation, in Med. Classics, Baltimore, 1939, iii, 581-617.

Bidder (Friedrich Heinrich) (1810-94) and Schmidt (Carl) (1822-94). Die Verdauungssäfte und der Stoffwechsel. Mitau u. Leipzig, G. A. Reyher, 1852.
Even after the work of Prout and Beaumont, some physiologists thought that the free acid of the gastric juice was lactic acid; Bidder and Schmidt finally proved that normally the gastric juice always contains HCL in excess.

Blemenbach, Jo. Fred., M.D. Elements of Physiology (2 vol.) Philadelphia, 1795.

Boerhaave (Hermann). (1668-1738.) Opera omnia medica. Venetiis, apud L. Basilium, 1742.
Boerhaave had a great reputation as a clinician; he was, in fact, the creator of the modern method of clinical teaching. His writings had an enormous influence during his lifetime. Haller, Cullen, Pringle, van Swietan, and de Haen were among his pupils. His greatest work was his Elementa Chemiae, published at Leyden in 1732.

Brinton, William, M.D. Lectures on the Diseases of the Stomach. Leau and Blanchard. Philadelphia 1865.

Brodie, Sir Benjamin Collins, Bart. (1783-1862.) Experiments and observations on the influence of the nerves of the eight pair on the secretions of the stomach. Phil. Trans. Roy. Soc., London, 1814, civ, 102-06.
Before turning to surgery, Brodie did important work in physiology. Above is his study of the influence of the pneumogastric nerve on gastric secretion.

Broussais, F. J. V., M.D. Translation from the French by John Bell, M.D. A Treatise on Physiology, Carey, Lea and Carey. Philadelphia 1828.

Brunton, T. L., M.D. On Disorders of Digestion. Macmillan and Company, London, 1886.

Budd, George, Organic Diseases and Functional Disorders of the Stomach. Samuel S. and William Wood, New York, 1856.

Cannon, Walter Bradford, (1871- .) The mechanical factors of digestion. London, E. Arnold. 1911.

Carlson, Anton Julius, (1875- .) Contributions to the physiology of the stomach. Amer. J. Physiol., Baltimore, 1912-13, xxxi, 151-68, 175-92, 212-22, 318-27; 1913, xxxii, 245-63.
Carlson recorded stomach movements by means of a balloon inserted through a gastric fistula. Much of his important work on gastric physiology is summed up in his book.

Carlson, Anton Julius, (1875- .) The control of hunger in health and disease. Chicago, Univ. Press, 1916.

Chambers, T. K., M.D. Digestion and Its Derangements. S. S. and William Wood, New York, 1856.

Chittenden, Russell Henry, (1856- .) Physiological economy in nutrition. New York, F. A. Stokes Co., 1904.
Chittenden, founder of the first laboratory of physiological chemistry in the U.S.A., made many important experiments in nutrition, especially in connection with the low protein diet advocated by him.

Chittenden, R. H. The Heritage of Connecicut Medicine. The Whaples-Bullis Co., New Haven, Conn., p. 100, 1943.

Chomel, Le Professeur. Des Dyspepsies. Librarie de Victor Masson. Paris, 1857.

Combe, Andrew, M.D. The Physiology of Digestion. Howe and Bates. New York, 1836.

Cullen, William. (1712-90.) The works. 2 vols. Edinburgh, W. Blackwood, 1827.
Cullen was the most conspicuous figure in the history of the Edinburgh Medical School during the eighteenth century. He was an inspiring teacher and was instrumental in founding the Glasgow Medical School in 1744. His clinical lectures were notable as being the first given in the vernacular instead of in Latin. Cullen was also celebrated for his purely scientific knowledge; his chemical lectures were as renowned as his clinical ones.

Many references are to material in the History Library of the Wayne County Medical Society, Detroit. Others are from the Check List of Fielding H. Garrison, M.D., as revised and annotated by Leslie T. Morton. Grafton and Company, London, 1943.

Dalton, John C., M.D. A Treatise on Human Physiology. (Fifth Edition) Henry C. Lea Phil. 1871.

Daubenton, Mr. Observations on Indigestion. (Third Edition) J. Callow, London 1809.

Dick, Robert, M.D. Derangements——of the Organs of Digestion. Barrington and Haswell, Phil. 1842.

Dittrick, Howard, M.D. Medical Agents and Equipment Used in the Northwest Territory. Ohio State Medical Journal, Vol. 48, No. 8, July, 1952.

Dujardin, Beaumetz, Prof. Diseases of the Stomach and Intestines. Translated by E. P. Hurd, M.D., William Wood and Company, New York, 1886.

Edkins, John Sidney. (1863-1940.) On the chemical mechanism of gastric secretion. J. Physiol., London, 1906, xxxiv, 133-44.
Gastric secretin (gastrin) was first described by Edkins. A preliminary communication is in Proc. Roy. Soc., London, 1905, Series B, lxxvi, 376.

Ewald, C. A., M.D. Lectures on Diseases of the Digestive Organ—(2vol.) Vol. 2 Lectures on Diseases of the Stomach. The New Sydenham Society, London, 1892.

Ewald, C. A., M.D. Lectures on Diseases of the Digestive Organs (2vol.) The New Sydenham Society, London, 1891.

Eyre, Sir James, M.D. The Stomach and Its Difficulties. Second Edition, John Churchill, 1852.

Faithhorn, John, M.D. Facts and Observations on Liver Complaints and Bilious Disorders. Hickman and Hozzard, Philadelphia, 1820.

Fick, Adolf, M.D. Compendium der Physiologie des Menschen. Wien, 1874.

Flint, Austin, Jr., M.D. The Physiology of Man. D. Appleton and Company, New York, 1871.

Flint, Austin, Jr., M.D. (vol. 4). The Physiology of Man, —. —The Existing State of Physiological Science. D. Appleton and Company, New York, 1872.

Fothergill, J. M., M.D. Indigestion, Biliousness. William Wood and Company, New York, 1881.

Graham, Sylvester. A Lecture on Epidemic Diseases Generally—and a Review of Beaumont's Experiments on the Gastric Juice.

Griscom, J .H., M.D. Animal Mechanism and Physiology. Harper and Bros., New York, 1840.

Habershon, S. O., M.D. Pathological and Practical Observations on Diseases of the Alimentary Canal, Blanchard and Lea, Phil., 1859.

Halsted, O. New Method of Curing Dyspepsia, with Some Observations on Diseases of the Digestive Organs. O. Halsted, New-York, 1830.

Hunter, John, F.R.S. Surgeon to St. George's Hospital. Philosophical Transactions, 1772, lxii, 447.

Italia, S. R. The William Osler Essay: Elisha North: Experimentalist, Epidemiologist, Physician. Bul. Hist. Med. Vol. 31, No. 6, Nov., 1957, p. 505.

Ivy, Andrew Conway (1893-), and Farrell, James Irving (1900-). Contributions to the physiology of gastric secretion. The proof of a humoral mechanism. A new procedure for the study of gastric physiology. Amer. J. Physiol., Baltimore, 1925, lxxiv. 639-49.

Johnson, James, M.D. A Treatise on Derangements of the Liver, Internal Organs. Horatio Hill and Company, Concord 1832.

Johnson, James, M.D. An Essay on Morbid Sensibility of the Stomach and Bowels. Benjamin and Thomas Kite. Phil. 1827.

Jones, C. H., M.B. Observations Respecting Morbid Conditions of the Stomach. John Churchill, London, 1855.

Kosaka, T. and Lim, Robert Kho-Seng, (1897-). Demonstration of the Humoral agent in fat inhibition of gastric secretion. Proc. Soc. Exper. Biol. and Med., New York, 1930, xxvii, 890-91.
The work of Kosaka and Lim led to the discovery of a hormone inhibiting gastric secretion ("enterogastrone").

Kühne, Willy, (1837-1900) and Chittenden, Russell Henry, (1856-1943). Über die nächsten Spaltungsproducte der Eiweisskörper. Ztschr. f. Biol. München, 1883, xix, 159-208.
Kühne and Chittenden isolated and named several new substances during their investigation of the products of digestion. See also the same journal, 1884, xx, 11-51; 1886, xxii, 409-58; 1889, xxv, 358-67.

Kühne, Willy, (1837-1900) Über das Typsin. Verhand. d. naturh.-med. Ver. zu Heidelberg, 1874-77, n. F., i, 194-98. Isolation of Trypsin.

Lancisi, Giovanni Maria, (1654-1720) Opera quae hactenus prodierunt omnia. Genevae, J. A. Cramer et fil. 1718.
Lancisi, great Italian clinician, was the first to describe cardiac syphilis; he was also notable as an epidemiologist, with a clear insight into the theory of contagion. He was Physician to Pope Clement XI, who turned over to him the forgotten copper plates executed by Eustachius in 1552. Lancisi published these with his own notes in 1714 (see No. 512).

Luckhardt, Arno B. M.D., The William Beaumont Collection of the University of Chicago. Bul. Hist. of Med. (May) 1939, vii, 535.

Magendie, Francois, (1783-1855) Mémoire sur le vomissement. Paris, Crochard, 1813.
Physiologists still consult Magendie's classical description of the physiology of deglutition and vomiting. A translation of the above is in Ann. Phil., London, 1813, i, 429-38.

Magendie, F. An Elementary Treatise on Human Physiology. Translated by John Revere, M.D. (2 vol.) Harper and Brothers. New-York, 1844 (Fifth edition).

Magendie, F. Summary of Physiology Translated by John Revere. Edward J. Coale, Baltimore, 1824.

McCollum, Elmer Verner (1879-) The newer knowledge of nutrition. New York, Macmillan Company, 1918.

Miller, Genevieve. William Beaumont's Formative Years. Schuman's, New York, 1946.

Muller, D. Johnson, B. Physiologie oder Lehre vondem Gesünden Zustand Bes Menschlichen Korpers fur Vertze und Nichtarzte. Maniz 1790.

Myer, Jesse S. Life and Letters of Doctor William Beaumont. C. V. Mosby Co. St. Louis 1912.

Nicolet Day on Mackinac Island. Bul. No. 6, Michigan Historical Commission 1916.

Owen, Richard, F.R.S. Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals. Longman, Brown, Green and Longmans. London, 1843.

Paschutin, Victor, Vasilyevich, (1845-1901) Einige Versuche mit Fermenten, Welche Starke und Rohrzucker in Traubenzucker verwandein. Arch. f. Anat., Physiol. u. wissensch. Med., Leipzig, 1871, 305-84.

Pasteur, Louis, (1822-95) Oeuvres de Pasteur, réunies par Pasteur Vallery-Radot. 7 vols. Paris, Masson, 1922-39.
One of the founders of bacteriology, Pasteur is at the same time one of the greatest figures in the history of medicine. His work on fermentation, the doctrine of spontaneous generation (which he finally exploded), virus diseases, and preventive vaccinations, were fundamental.

Pavlov, Ivan Petrovitch, (1849-1936) Lektsii o rabotie glavnikh pishtshevaritelnikh zhelyoz. (Lectures on the work of the principal digestive glands. St. Petersburg, I. N. Kushnereff) 1897.
Pavlov made perhaps the greatest contribution to our knowledge of the physiology of digestion. Especially notable was his method of producing gastric and pancreatic fistulae for the purpose of his experiments. A translation of his description of the stomach pouch devised by him is in J. F. Fulton's Selected Readings in the History of Physiology, 1930, pages 170-74. His book was translated into English, a second edition appearing in 1910.

Prout, William (1785-1850). On the nature of the acid and saline matters usually existing in the stomachs of animals. Phil. Trans. Roy. Soc., London, 1824, cxiv, 45-49.
Proof that the gastric juice contains free hydrochloric acid. Prout, of Guy's Hospital, London, is of importance as initiating the applications of chemistry to medicine and physiology.

Reaumur, Rene Antoine Ferchault de. Sur la Digestion des Oiseaux. Memoires de l'Academic Royale, Paris, 1752.
Using a pet buzzard, de Reaumur succeeded in isolating the gastric juice and demonstrating its solvent effect on foods.

Richerand, A., Elements of Physiology. Translated by G. J. M. DeLys, M.D., W. E. Dean, New York, 1825.

Rolleston, George, M.D. (Linacre Professor of Anatomy and Physiology, Oxford) Address in Physiology. T. Richards. London, 1870.

Rolleston, George, M.D. Scientific Papers and Addresses, (vol. 1) Clarendon Press. Oxford, 1894.

Rosen, George, M.D., The Reception of William Beaumont's Discovery in Europe. Schuman's, New York 1942.

Rubner, Max, (1854-1932) Die Gesetze des Energieverbrauchs bei der Ernahrung. Leipzig and Wien, F. Deuticke, 1902.
Rubner's classical work on the influence of foodstuffs on metabolism. In it he introduced the term "specific dynamic action of the foodstuffs."

Schwann, Theodor, (1810-82) Versuche um auszumitteln, ob die Galle im Organismus eine für das Leben wesentliche Rolle spiclt. Arch. f. Anat., Physiol. u. wissensch. Med., Berlin 1844, 127-59.
Proof of the indispensability of bile to digestion.

Spallanzani, Lazaro, (1729-99) Della digestione degli animali. In his "Fisica Animale," Modena, 1780, i, 1-275.
Spallanzani confirmed earlier doctrines of the solvent property of the gastric juice and discovered the action of the saliva in digestion. He stated that gastric juice can act outside the body and can prevent or inhibit putrefaction. He obtained gastric juice by tying a sponge on a piece of string, then allowing it to be swallowed.

Spallanzani, Lazaro. Dissertations Relative to the Natural History of Animals and Vegetables. London 1784.

Spencer, Oliver H., Experiments and Observations on Digestion: An Inaugural Essay. Printed at the Office of the Gazette of the United States. Philadelphia 1802.

Spencer, Oliver H., Experiments and Observations on Digestion. Office of the Gazette of the U. S. Philadelphia, 1802.

Stenn, Frederick, M.D., William Beaumont. Pioneer Physiologist. Centennial of His Death (1785-1853) The Journal of the A.M.A. July 4, 1953, vol. 152, pp. 915-917, 1953.

Stevens, Edward. Dissertatio physiologica inauguralis de alimentorum concoctione. Edinburgi, Balfour et Smellie, 1777.
First isolation of human gastric juice. Stevens was also the first successfully to perform an *in vitro* digestion, proving the presence in the gastric juice of the active principle necessary for the assimilation of food. An

English translation is included in Spallanzani's Dissertation Relating to the Natural History of Animals, 1784.

Stevens, Edward, Dr. Lectures on the Materia Medica. Dissertation, Experiment 23, (Experiments on Digestion) Edinburgh, 1777.

Stenson, Niels, (Steno.) (1638-86) Observations anatomicae. Lugduni Batavorum. J. Chouet, 1662.
Includes the first account of the excretory duct of the parotid gland (Steno's duct), discovered by Stensen.

Starling, E. H. M.D., Physiology of Digestion, W. T. Keener and Co. Chicago, 1906.

Thiry, Ludwig, Über eine neue Methode den Dunndarm zu isolieren. Sitzungsb. der k. Akad, der Wiss., Wien, 1865, Math.-nat. Klasse, Abt. I, i, 77-96. Thiry-Vella fistula (see also No. 1081).

Thompson, William, M.D., A Practical Treatise on the Diseases of the Liver. Barrington and Haswell Phil, 1842.

Tiedemann, Friedrich, (1781-1861) and Gmelin, Leopold, (1788-1853) Die Verdauung nach Versuchen. 2 vols. Heidelberg, K. Groos, 1826-27. Confirmation of the work of Prout.

Todd, T. Wingate, M.D. Beaumont Lectures-Detroit Medical News, Vol. 21, No. 22, Jan. 28, 1930.

Vaughan, Victor, C., M.D. William Beaumont and His Work. Presidential Address, Thirty-first annual meeting of the Michigan State Medical Society at Mt. Clemons, June 4, 1896.

Vella, Luigi (1825-86) Nuovo metodo per avere il succo enterico puro, e stabilirne le proprietá fisiologiche. Mem. R. Acad. Sci. 1st. Bologna, 1881, ii 515-38.
(See No. 1075)

Whittaker, A. H., M.D., The Beaumont Memorial on Mackinac Island. Bul. Hist. of Med. Vol. 28, No. 4, July 1954 p. 385.

Whittaker, A. H., M.D., The Doctor William Beaumont Memorial on Mackinac Island. Michigan History, vol. 37, no. 1, March 1953.

Whittaker, A. H., M.D., The Doctor William Beaumont Memorial on Mackinac Island. Jour. Mich. State Medical Society Vol. 52, No. 2, Feb. 1953, p. 165.

Williams, Meade C. Early Mackinac. Buschart Brothers, St. Louis, 1903.

Wood, Edwin O. Historical Mackinac. The Macmillan Co. 1918, p. 11.

Young, J. R. (1782-1804) An experimental inquiry into the principles of nutrition, and the digestive process. Philadelphia, Eaken & Mecum, 1803.
Young, one of the first American experimental physiologists, showed the solvent principle in the gastric juice to be an acid, but wrongly inferred that it was phosphoric acid. He also deduced the association and synchrony between gastric juice and saliva.

Army Uniform of 1822

By Alfred H. Whittaker, M.D.
Detroit, Michigan

BECAUSE of the many portraits of Beaumont, contemporary and modern, most of which portray him in uniform, there has been a keen interest as to whether the uniforms are authentic in appearance.

The following proves the Keller portrait,* composite in design, to be accurate:

Letter from Charles Roos, Head Document Section, Armed Forces Medical Library, April 21, 1954.

Sections from the General Regulations for the Army dated 2 March 1821, dealing with uniform.

The Medical Officer was a Commissioned Officer in the Regular Army.

There were, at the period of Beaumont service, Staff Officers not having lineal rank. For purposes of pay and for other purposes "a regimental full surgeon" was equitable with a major or captain, a "post surgeon" or "assistant surgeon" with a captain or first lieutenant.

There were provisions for "contract surgeons," not members of the Regular Army, but Beaumont was commissioned in the Regular Army.

Uniforms

1. Dark blue is the national colour. When a different one is not expressly prescribed, all uniform coats, whether for officers or enlisted men, will be of that colour.

Chapeaux de bras and Caps

2. Chapeaux de bras will be of the following form:—the fan not less than six and a half, nor more than nine inches deep in the rear, and not less than fifteen, nor more than seventeen and a half inches, from point to point; the edge bound round with black binding, an inch wide. Loop, button, and cockade, black; the latter four and a half inches in diameter, with a gold eagle in the centre; the eagle one and a half inches between the tips of the wings.

Chapeaux, etc. Plumes, etc. Tassels, etc.

3. Caps of company officers will be of leather; bell crown; gift scales; yellow eagle, in front, three inches between the tips of the wings, with the number of the regiment cut in the shield; black leather cockade, one and a half inch in diameter, having a small yellow button in the centre, with an eagle impressed on it. Those of the enlisted men will be of leather, and of the same form as those prescribed for officers; brass scales.

4. Chapeaux de bras will be worn by all officers in uniform, whether of the line or the staff, except company officers. Caps will be worn by all company officers, when on duty with their companies, and by all enlisted men.

Plumes and Pompons

5. No plumes nor pompons will be worn with chapeaux de bras.

6. The company officers of artillery will wear yellow pompons, five inches in length; those of the light artillery to be white, with red tops. The officers of infantry will wear similar pompons, except in colour, which shall be white; those of the light infantry companies to be yellow. The officers of rifle companies will wear like pompons, except in colour, which shall be green.

7. Yellow worsted pompons, five inches in length, will be worn by the enlisted men of the artillery; those of the light artillery to be white, with red tops. The enlisted men of the infantry will wear similar pompons, except in colour, which shall be white; those of the light infantry companies to be yellow. The enlisted men of the rifle companies will wear like pompons, except in colour, which shall be green.

8. Pompons will be worn in front of the cap.

Tassels for Caps

9. Those of the officers of the artillery and rifle companies will be of gold cord and bullion. Those of the officers of infantry will be of silver cord and bullion.

10. Those of the enlisted men of artillery will be of yellow worsted; those of the enlisted men of infantry will be of white worsted; and those of the enlisted men of the rifle corps will be of green worsted.

156 Stocks, Epaulettes, Wings, Chevrons, Art. 65

Stocks

11. The stock will be of black leather, or silk; and nothing white shall be seen above it, round the neck, but the collar of the shirt.

Epaulettes

12. Major generals and brigadier generals will wear two gold epaulettes. Those of the major general will have on the gold ground of each strap, two silver stars; those of the brigadier general will have on each strap, one star. All other officers of the general staff will wear gold epaulettes, as follows:—colonels, lieutenant colonels, and majors, two; captains, one on the right shoulder, and subalterns, one on the left.

13. Colonels, lieutenant colonels, and majors, of engi-

*See photograph in color, on insert facing page 742.

neers, artillery, and rifle, will wear two gold epaulettes. Colonels, lieutenant colonels, and majors, of infantry, will wear two silver epaulettes. Captains of engineers, one gold epaulette on the right shoulder, and subalterns one on the left.

Wings

14. The wings of company officers of artillery and rifle will be of gold bullion. Those of company officers of infantry, of silver bullion.

15. The wings of the enlisted men of the artillery will be of yellow worsted; those of the enlisted men of infantry, of white worsted; and those of the enlisted men of rifle companies, of black worsted.

Chevrons

16. Chevrons will designate rank as follows:—captains, one on each arm, above the elbow; and subalterns, one on each arm, below the elbow. They will be of gold or silver lace, half an inch wide, conforming in colour to the buttons of their regiments or corps. The angle of the chevron to point upwards.

17. Adjutants will be designated by an arc of gold or silver fringe (according to the colour of their trimmings), connecting the extreme points formed by the two diverging lines of the chevron.

Chevrons, Coats, Art. 65

18. Sergeant majors and quartermaster sergeants will wear one chevron of worsted braid on each arm, above the elbow; sergeants and senior musicians, one on each arm, below the elbow; and corporals, one on the right arm, above the elbow. They will conform, in colour and material, to the braid with which the collars of their coats are trimmed.

Coats

19. The coat of the general staff will be single breasted, with one row of ten buttons, and with button-holes worked with blue twist in front, extending, at the top, to the seam of the sleeve, and not more than three inches long at the bottom. Standing collar to be united in front to the edge of the breast of the coat, not to rise higher than the tip of the ear, and always as high in front as the chin will permit, in turning the head. The cuffs not less than three and a half, nor more than four inches wide. The skirts faced with cloth of the same colour of the coat, the bottom of each not more than five, not less than three and a half inches wide, the length to reach the bend of the knee—the bottom of the breast and two hip buttons to range. One blind button-hole, five inches long, with a button, on each side of the collar. The blind holes of the front of the coat, in the herring-bone form, to run in the same direction with the collar from the top to the bottom. Blind holes, in the like form, to proceed from four buttons placed lengthwise on each skirt. A gilt star on the bottom of the skirt, two inches from the lower edge. The cuffs to be indented, within one and a half inch of the edge, with four buttons lengthwise on each sleeve, and blind holes to the three upper buttons, corresponding with the indentation of the cuff, on the centre of which indentation is to be inserted the lower button.

20. The coat of the engineers to be single breasted, with one row of ten buttons in front; the button-holes of blue twist, in the herring-bone form, as those prescribed for the general staff. Standing collar of black silk velvet, to be united in front to the edge of the breast of the coat; not to rise higher than the tip of the ear, and always as high in front as the chin will permit, in turning the head. The collar to be embroidered with a sprig of laurel encircling a star. The cuffs of black silk velvet, three and a half inches wide, to be indented, within one and a half inch of the edge, with three buttons lengthwise on each sleeve, at equal distances, the lower button to be placed on the centre of the indentation; blind holes of blue twist to proceed from the two top buttons in the herring-bone form, and corresponding with the indentation of the cuff. Three buttons, placed lengthwise on each skirt, with blind holes of blue twist, in the herring-bone form. The outer edge of the skirts faced with blue. Three buttons on the plait, one on a line with the hip, one within an inch of the bottom, and the other at the central point.

21. All general officers will be permitted to embroider their button-holes. Other officers of the general staff will be permitted to embroider the button-holes of the collar only.

22. *The coat of the medical officers shall correspond to that of the general staff, except in the collar and cuffs, which will be of black silk velvet. No embroidery is allowed them.*

Swords and Belts

23. The swords of the officers of the general staff, engineers, artillery, and rifle, will be yellow mounted, with a black or yellow gripe, and straight blades. Those of the officers of infantry will be of similar form, and will differ only in the colour of the mountings, which shall be white. *Medical officers will wear yellow mounted small swords.*

24. The general staff and engineers will wear black waist belts, with a yellow plate. All other officers will wear white waist belts, one and a half inch wide. Artillery and rifle officers will wear on the belt a yellow oval plate, in front, one and a half inch wide, with an eagle in the centre. Those of the infantry will wear a similar plate, except in colour, which shall be white.

Buttons

25. *The general staff and medical officers will wear plain gilt bullet buttons.*

26. The button of the engineers will be flat, of yellow metal, with only the device and motto heretofore established. The button of the artillery will be of yellow metal, cupped in form, three-fourths of an inch in diameter, with an eagle impressed on it, and the letter "A" in the shield thereof. The rifle button will be like that of the artillery, except that it will be more cupped, be only one half inch in diameter, and shall bear the letter "R" instead of "A." The button of the infantry will be like that of the artillery, except that it will be of white metal, and shall bear the letter "I" instead of "A."

The Furnishings of the Beaumont Memorial

By Paul L. Grigaut
Detroit, Michigan

TO GIVE a feeling of life and warmth to the interior of the Beaumont House, such was the aim of those who had the privilege of helping on the restoration of what has become one of the most delightful *maisons* of northern Michigan. There was an almost complete absence of those documents, inventories or letters, which might have helped us to recreate scientifically the physical environment in which Beaumont lived in the early 1820's at Fort Mackinac. But from all evidence, the furniture used in the Michigan settlements of the early 19th century was of the type familiar to the *habitants* and *voyageurs* from French Canada who frequented the region. A trip to French Canada enabled us to find a wealth of material which greatly facilitated our task. Solidly constructed, with reminiscences of the earlier French styles from Normandy or Picardy, the furniture we brought back was made of humble woods such as pine or birch.

The House furniture is primitive and graceful in its simple functional lines, with here and there remnants of the painted decoration characteristic of much of French Canadian furniture. St. Martin, Dr. Beaumont's famous patient, would feel quite at home in such surroundings. The benches, three-legged stools, trestle tables and blanket chests, are the work of carpenters rather than craftsmen; they are in any case perfectly adapted to the style of the house itself, as we see it in its present condition, with its strong pioneer flavor and charm. Furniture, alone, would not have been sufficient to evoke life in the Mackinac of the Beaumont period; a few rare maps of the Michigan territory, a few guns on the walls, fur blankets and wooden bowls give the Beaumont Memorial the homely touches without which no reconstitution would be complete.



French Canadian Furniture *(ca.* 1800-1820), Beaumont Memorial, Mackinac Island, Michigan
Above, writing desk, chair, chest. *Below,* table with individual compartments for dishes and eating utensils.

Mr. Grigaut is Chief Curator, The Detroit Institute of Arts, Detroit, Michigan.

A Lawyer's Dicta on Doctors

By Felix Frankfurter
Washington, D. C.

THE first is he whom Osler called a "backwood physiologist" but "the first to make an important and enduring contribution to this science." William Beaumont was born in 1785 and he had one of those medical apprentice's educations in the metropolis of St. Albans, Vermont. Being an apprentice meant sweeping the floor, building the fire, filling prescriptions, accompanying his doctor on his rounds in his wide-flung country practice in that horse-and-buggy age, watching what he did and what he did not do. That's the way Beaumont got his medical education. He practiced, such practice as there was, and then the War of 1812 changed the course of his career. He became an assistant surgeon stationed in Plattsburg, New York. Finding medical life in the army congenial, as others have found it since for one reason or another, sometimes the wrong reason, he remained in the army and ended up at Fort Mackinac, Michigan, then a town of 500.

It was through my friend, Dr. Walter Cannon, that I came to know about Beaumont. But let me give you the starting point of his significance in the vivid account by Osler, who devoted a paper to Beaumont in a volume of essays entitled, "An Alabama Student," which I commend to you:

". . . The Fort was occupied by United States troops, who kept the Indians in check and did general police duty on the frontier, and the place had become a rendezvous for Indians and voyaguers in the employ of the American Fur Company. On this bright spring morning the village presented an animated scene. The annual return tide to the trading-post was in full course, and the beach was thronged with canoes and bateaux laden with the pelts of the winter's hunt. Voyageurs and Indians, men, women and children, with here and there a few soldiers, made up a motley crowd. Suddenly from the company's store there is a loud report of a gun, and amid the confusion and excitement the rumor spreads of an accident, and there is a hurrying of messengers to the barracks for a doctor. In a few minutes an alert-looking young man in the uniform of a U. S. Army surgeon made his way through the crowd and was at the side of a young French Canadian who had been wounded by the discharge of a gun, and with a composure bred of an exceptional experience of such injuries, prepared to make the examination. Though youthful in appearance, Surgeon Beaumont had seen much service, and at the capture of York and at the investment of Plattsburg he had shown a coolness and bravery under fire which had won high praise from his superior officers. The man and the opportunity had met. . . ."

Just as some famous case may immortalize the litigant's name in legal history, so Alexis St. Martion, the young French Canadian, is linked with the achievement of Dr. Beaumont. He was a lad of nineteen when "on a lovely June day in 1822" there occurred the incident which Osler described. Beaumont found several gunshots in the left hip of his patient, who became known as the fellow who had a "stomach with a lid." Soon Beaumont realized that he could see through the hole made by the gunshots. Having had Alexis under observation for a year, Beaumont said to himself, "By Jove, I can study the digestive process if I keep looking through this hole," and he did, from 1822 till 1834, when Martin finally left him. During all that period Beaumont, with intermittent periods when Alexis escaped to Canada and the fur company helped to bring him back, made a study of the gastric juice and digestive process, and with such illumination that his work has been compared to that of Claude Bernard.

There surely must have been earlier cases of gastric fistula, but Beaumont was the first to seize the opportunity for its study. And he wrote a book in 1838 with fifty-one conclusions. I am told by those who are entitled to speak on the subject that most of the conclusions are valid to this day. Why do I speak of Beaumont? Well, think of the enterprise of an army-post doctor at Fort Mackinac, 1822, in seizing the opportunity of extending the boundaries of knowledge, the care and tenderness with which he took Alexis St. Martin into his own home, and when the fellow got tired of being a guinea pig and escaped, the pertinacity of Beaumont over a year or two in trying

---

Excerpt from the George W. Gay Lecture, delivered at the Harvard Medical School, March 21, 1958.

Mr. Frankfurter is a Justice of the United States Supreme Court.

to get him back so that he could continue his physiological observations.

Then Beaumont decided to write a book to make his knowledge available. He realized that he needed wider knowledge than he had. For instance, he lacked chemical knowledge, so he turned to chemists who had it; he needed knowledge of physiology he was without, so he turned to physiologic studies in books written abroad and sought knowledge through correspondence. In short, Beaumont was not content to take this as a patient's case, treat it with all the care and tenderness with which doctors treat patients. He saw an opportunity to extend the area of knowledge beyond the range of his practice and the limits of his then competence. He had none of the training that you have had or will have. He had to improvise the means for fruitful inquiry. He had to improvise devices for enlarging the scope of contemporary learning. Finally, by patience and pertinacity, and I stress *pertinacity*—as important for a doctor as for a lawyer or a soldier in battle—with pertinacity he put on paper a book that, as I have indicated, lives to this day because of the observations and verifications and the thinking that he made upon a case that turned up by chance within his narrow practice and made only limited demands within the range of his professional duties.

ALEXIS ST. MARTIN

(Continued from Page 741)

taken him into his home when he was declared a pauper. But even the most enlightened man may find it difficult to show gratitude continually over many years. Alexis' wife, Marie Joly, seems to have taken a poor view of his employment as a human guinea pig, especially when it involved separation from his family. The reaction of his relatives to requests for an autopsy indicates how they felt about Alexis being regarded as a useful and interesting specimen. All this was natural. It is worth noting that Osler did not write unkindly of Alexis. He called him "that old fistulous Alexis" and "the old sinner," but these are not harsh words. Alexis had a part in Beaumont's great work and some small tribute should be paid to the memory of this sturdy and skillful voyageur from Lower Canada.

References

1. Anonymous: Alexis St. Martin. Canad. M. & S. J., 8:48, 1879.
2. Beaumont, W.: Experiments and Observations on the Gastric Juice and the Physiology of Digestion. Plattsburgh: F. P. Allen, 1833.
3. Cushing, H.: The Life of Sir William Osler. London: Oxford University Press, 1925.
4. Janowitz, H. D.: Newly discovered letters concerning William Beaumont, Alexis St. Martin, and the American Fur Company. Bull. Hist. Med., 22:822, 1948.
5. Lovell, J.: A case of wounded stomach. Medical Recorder of Original Papers and Intelligence in Medicine and Surgery, 8:14, 1825 (Author was Beaumont, not Lovell—see ibid. 8:840, 1825.)
6. Luckhardt, A. B.: Medical history collections in the United States and Canada. I. The Dr. William Beaumont Collection of The University of Chicago donated by Mr. and Mrs. Ethan Allen Beaumont of De Pere, Wisconsin. Bull. Hist. Med., 7:535, 1939.
7. Myer, J. S.: Life and Letters of Dr. William Beaumont. St. Louis: C. V. Mosby Co., 1912.
8. Myer, J. S.: A new print of Life and Letters of Dr. William Beaumont. St. Louis: C. V. Mosby Co., 1939.
9. Osler, W.: A Backwood Physiologist, in An Alabama Student and Other Biographical Essays. London: Oxford University Press, 1908.
10. Peckham, H. H.: Four letters of Alexis St. Martin. Bulletin 26 of the William L. Clements Library, University of Michigan, 1937.
11. Peckham, H. H.: The man with the hole in his stomach. Michigan Alumnus Quarterly Review, 46:249, 1940.

A 17th Century Chapel for Mackinac Island

By Eugene T. Petersen
Mackinac Island, Michigan

IN another structure of great historical significance to be erected this summer just across the road from the Beaumont Memorial, a Michigan dentist will have an important and unique role. The Mackinac Island State Park Commission, under its chairman, W. Stewart Woodfill, will construct a replica of a 17th century missionary bark chapel as part of its historical restoration program. The chapel will be located in Marquette Park below the Fort and perhaps not too far from where Father Claude Dablon, S.J., wintered on Mackinac Island in 1670. It is to his memory and to that of the other intrepid missionaries who risked their lives on the Michigan frontier that this chapel will be dedicated.

The museum staff of the Park Commission is endeavoring to recreate for the public the mood and feeling that must have prevailed at the time when these missionaries labored to convert the Indians to Christianity. Through the efforts of B. E. Luck, D.D.S., the interior of the chapel setting will have a ring of authenticity. The Lansing dentist has arranged for a gift from the Rt. Rev. Msgr. Edward J. Hickey, Detroit of a valued silver chalice that dates from the early 18th century. Dr. Luck has combed antique shops in Central Michigan to find the exact type of box that might have contained the holy accoutrements of these missionaries. He was able to find one constructed of pine which is very similar, it is believed, to the 17th century boxes of Dablon, Marquette, and Allouez. These items will be placed on a crude altar where also will hang a hand-carved crucifix.

This represents hours of labor for Dr. Luck, who for many years has pursued a hobby of woodcarving. Not only is his dexterity with the knife in evidence, but the carefully done crucifix reflects considerable historic research. The crucifix was carved from a piece of old Michigan cork pine taken from one of the oldest buildings in the State capitol. The cross was prepared from a piece of very old Michigan cedar obtained in Roscommon County.



Dr. Luck in his workshop.

Mr. Dirk Gringhuis, historical artist and JOURNAL cover artist for the Michigan State Medical Society, has done four religious paintings of a kind invariably carried by missionaries to illustrate graphically to the Indians the basic Christian beliefs.

The 25- by 15-foot chapel, which is scheduled for opening to the public about July 1, will take its place in the growing list of historic restorations on Mackinac Island.

Mr. Petersen is Director of Historic Projects, Mackinac Island State Park Commission.

Absorption of Amino Acids from an Isolated Loop of Human Intestines

By Aline Underhill Orten, Ph.D.
Detroit, Michigan

SINCE the epochal discoveries of Beaumont, digestive and secretory activities in the gastrointestinal tract have been widely explored. Presently, the general trend is toward the elucidation of the detailed biochemical mechanisms involved in secretion of digestive fluids and of the interrelationships among the foodstuffs in the intestinal tract. Less emphasis has been placed on the processes involved in absorption.

The intestine is now being recognized as an important organ in the nutrition of the normal individual as well as in pathological states and during convalescence. That there is an "intestinal phase" of nutrition beyond that of digestion itself is becoming increasingly evident. The small intestine stands as an intermediary between ingested food which has been digested and the entrance of these nutrients into the blood and/or lymph. Until this barrier is traversed, food nutrients cannot be said to be actually inside the body, nor can they become of physiological value. Furthermore, there exist a variety of biochemical mechanisms within the intestinal wall itself which chemically alter certain of the nutrients or which control their passage through this barrier. For example, monosaccharides are phosphorylated to form phosphate esters; fatty acids, monoglycerides and diglycerides are converted into triglycerides perhaps by way of phospholipids during their transfer; carotene is converted to vitamin A in the mucosal cell. It is the transfer of the split products of protein, the amino acids, with which we are concerned.

Protein nutrition is at present one of the most urgent world health problems and is also an essential part of therapy in prolonged parenteral feeding, fever, burns, trauma, postoperative convalescence and in some malignancies. Despite this importance, very little is known concerning the mode and the conditions affecting the transport of the digestion products of protein—the amino acids—across the intestinal barrier and the proportions of these delivered to the anabolic sites in tissue cells. It is known that for efficient synthesis of protein the necessary amino acids must arrive at the cellular template simultaneously. Moreover, the mechanisms operating in intestinal absorption of amino acids may well be involved in the transfer of amino acids across cell membranes in general.

Research on the absorption of amino acids has been fraught with difficulties. Among these have been the problem of suitable biological preparations for study and accurate analytical methods for determining the individual amino acids in very small quantities.

In an early study of amino acid absorption in our laboratories,[3,10] isolated blind loops of ileum in dogs and the starch column chromatographic procedures[6,8,13] for amino acid analysis were utilized. At this time there was observed a "preferential type of absorption" of some of the amino acids. Thus, isoleucine and leucine were always absorbed from mixtures to a greater extent than phenylalanine.

Subject.—In 1953 a unique opportunity for investigating amino acid absorption in the human small intestine was presented in the person of forty-eight-year-old Albert Drolet. "Al" had suffered for eight years from ulcerative colitis. An ileostomy was performed with the removal of the colon. Three months later, due to obstruction in the ileostomy orifice, the ileum was divided 14 inches proximal to the ileostomy; the distal bowel was closed and the proximal end brought to the skin as a fresh ileostomy. The isolated segment (a "Thiry loop") has been asymptomatic. A barium study of the loop revealed it to have a normal mucosal pattern. On inspection through the old ileostomy with a nasopharyngoscope, the

From the Department of Physiological Chemistry, Wayne State University, College of Medicine, Detroit.
The work reported in this paper was supported by Grant A-693, National Institutes of Health.

mucosa has appeared healthy without ulceration or polyps. About 150 ml. of solution can be placed in the loop without discomfort. During his convalescence in Detroit Receiving Hospital and with his permission, a few tests were conducted. These were then continued after his discharge. When the appropriate time arrived for the simultaneous removal of the stump of the colon and the blind loop, Al asked that the loop not be removed. He had learned to enjoy life in the laboratory as well as having come to realize that by so doing he was making a valuable contribution to medical science.



Courtesy *Detroit News*

Albert Drolet and the author with "automatic amino acid analyzer."

There are some remarkable resemblances between Al Drolet and Alexis St. Martin. Although a Detroiter by birth, Al is of French-Canadian extraction. Even though a bachelor, he, like Alexis St. Martin, has had difficulty at times remaining with the project. Persuasion and cajoling is sometimes necessary. He is fond of a "few beers"; and now and then, under emotional stress, it develops into more than "a few."

Method.—About the time Al joined the laboratory a new elegant chromatographic method[5] for the analysis of the individual amino acids became available and was being set up in our laboratory. It was adapted to the analysis of intestinal loop contents.[11] During the past year the efficiency of the method has been increased[4] and the analyses are now performed with the aid of an "automatic amino acid analyzer." The analyzer now in use was constructed by us and is patterned after the original[12] designed by Spackman, Stein and Moore at the Rockefeller Institute for Medical Research. Al, who assists some in the laboratory, has shown considerable interest in the construction of the instrument and in each test as the results appear visually on the recorder. An absorption test can be analyzed for its complete amino acid composition in twenty-four hours, whereas a week was required in our early work. Twelve years ago it would have required at least a month to have obtained, at best, a rather incomplete analysis.

Procedure.—The solution of amino acids whose absorption is to be determined is introduced into the loop through the stoma which is about 5 mm. in diameter. Gentle dilation with a series of small rubber catheters is necessary in order to permit the final easy insertion of a No. 14 French soft

rubber catheter with multiple openings. At the point of emersion, the catheter is thickened by means of a latex wrapping which produces a water-tight seal.

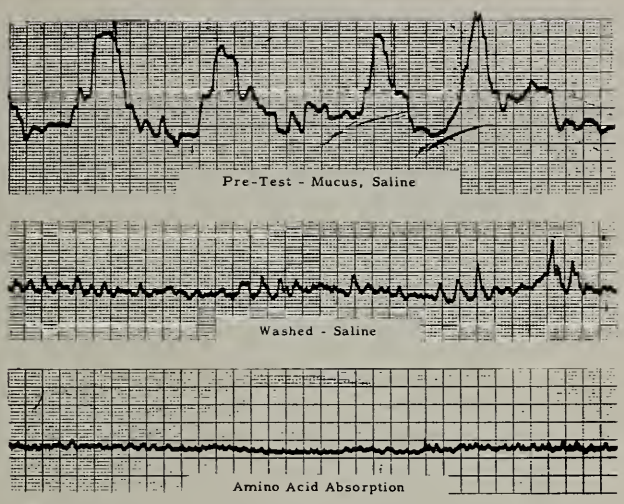


Fig. 1. Motility recordings of isolated ileal loop.

The loop is irrigated through the catheter with 0.9 per cent NaCl at 35°C. to remove excess mucus and debris. The test solution (50 ml.) is allowed to flow into the loop by gravity. Absorption periods are from one-half to three hours. A somewhat more physiologic technique, one of mechanically infusing the solution into the intestinal loop at a slow constant rate over the entire test period, is being investigated. This procedure more closely simulates the conditions normally present in the intestine. At the end of the test period the unabsorbed material is withdrawn into a clean syringe and the volume is noted. The loop is quickly washed with measured quantities of water, the washings added to the first sample withdrawn and the total is made to a known volume. After suitable treatment, the samples are frozen to await analysis. Some 500 such tests have been performed to date.

Motor Activity.—During selected tests, respiration, loop motility and intraluminal pressures are followed graphically by means of a Sanborn polyviso recorder. Large quantities of mucus evoke strong, well-spaced peristaltic waves which Al can feel and count. The pressure is felt as a "bump" immediately beneath the stoma. After or during a period of over-indulgence, mucus production is particularly prominent.

Fortunately, it is unnecessary to artificially evoke various emotional states because these appear naturally. Agitation with restlessness and frequent urination is accompanied by an increase in loop activity of an irregular pattern. It persists even during sleep.

During the absorption of amino acid mixtures in which the proportions of amino acids are similar and when Al is relaxed, movements in the loop are at a minimum—less than those which appear with the same volume of saline alone in the loop (Fig. 1). Some amino acids, particularly glutamic

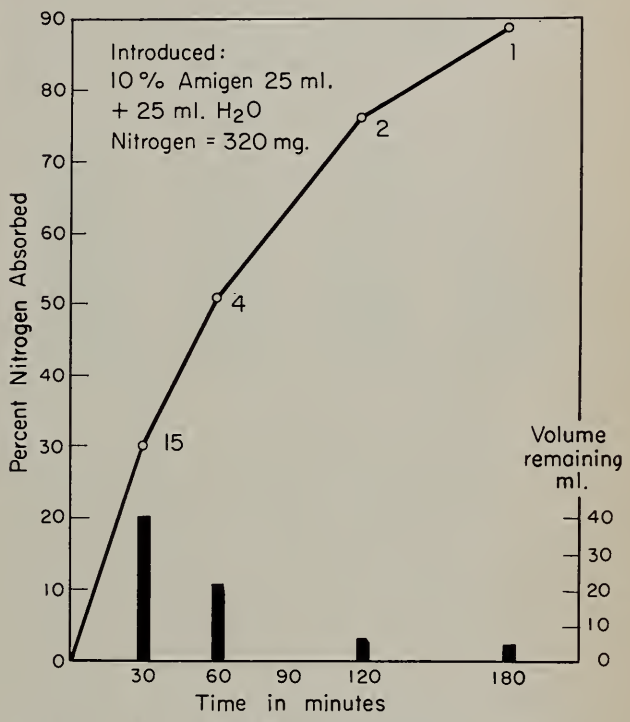


Fig. 2. Percentage absorption of nitrogen with time.

acid and tryptophan, when included in the mixture in large quantities or when placed in the loop alone stimulate a voluminous secretion of mucus which in turn produces strong peristaltic waves. It appears that both emotional and chemical factors influence the motor and secretory activities of the human small intestine.

Nitrogen Absorption.—Satisfactory procedures for the absorption tests were developed using a protein hydrolysate, Amigen,* as the test substance. In a time-study, 50 per cent of the nitrogen of Amigen was absorbed during the first hour (Fig. 2) and about 90 per cent by the end of three hours. In considering the effect of concentration on absorption[11] it was found that absorption increases with increasing concentration up to

*Supplied by Mead Johnson Co.

a point where the test solution is isotonic; it then levels off with further increasing concentrations. Thus efficiency of absorption is greater at lower concentrations.

The effect of NaCl and KCl on nitrogen absorption was studied in a series of eighty-three experiments. Amigen was diluted with physiological NaCl or KCl or water in six different proportions. The volume of fluid remaining at the end of the absorption period was always greatest with KCl as

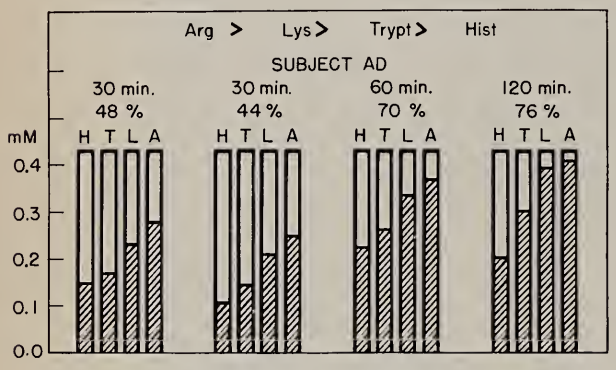


Fig. 3. Absorption from a mixture of the ten essential amino acids (equimolar).

the diluent, intermediate with NaCl and the least with water. However, the amount of nitrogen absorbed was not affected by the presence of either salt. These studies gave the necessary information on the best concentrations, time intervals and solvent media for the subsequent amino acid studies.

Absorption of Amino Acids.—Pure amino acids have been arranged in many combinations, beginning with pairs and extending to eighteen amino acid mixtures of varied composition. The amino acids are checked for purity by Dr. E. E. Howe, Merck Institute for Therapeutic Research. Some of the mixtures have been designed to simulate the composition of well-known natural proteins. Two mixtures are being tested therapeutically in the treatment of kwashiorkor.[1,2]

That all amino acids are not absorbed alike is evident.[7,9] The results of four absorption experiments at three time-intervals are given in Figure 3. The test mixture was composed of equimolar amounts of the ten essential amino acids, four of which are shown. These amino acids were not absorbed at the same rate. The absorption pattern is distinct; for example, arginine is absorbed considerably more rapidly than lysine, tryptophan, and particularly histidine. An examination of the pattern of an eighteen equimolar mixture (Fig. 4) shows that in this mixture these four amino acids still bear the same relationship to each other. In the pattern of absorption of the eighteen amino acid mixture it can also be seen that the ten essen-

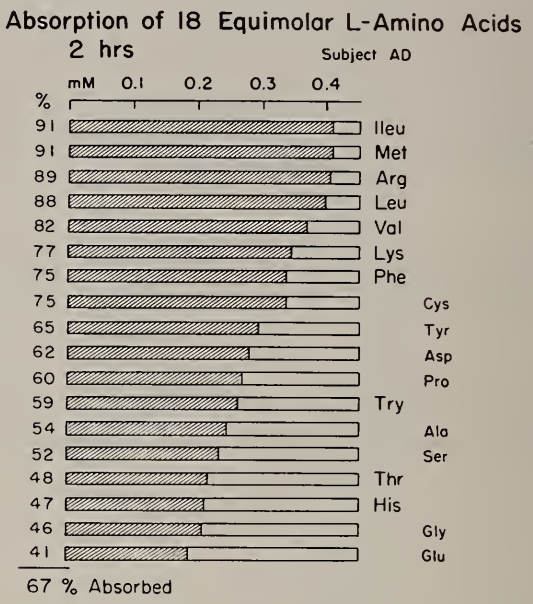


Fig. 4. Absorption of 18 equimolar L-amino acids over a two-hour period (Subject AD).

tial amino acids do not appear together in a group. Rather, they are distributed throughout the entire pattern. Some of the amino acids are absorbed only half as rapidly as others. In mixtures simulating natural proteins and in which the amino acids are not present in equimolar amounts, the absolute quantity of an amino acid absorbed in a given period of time is dependent upon its concentration in the mixture *and* upon its own characteristic rate of absorption. Current studies indicate that other individual nutrients and even single amino acids when present in a relatively large quantity may alter the absorption of the amino acids, e.g., glucose decreases total amino acid absorption but in no way alters the pattern of absorption.

The foregoing results confirm and extend the earlier studies in dogs showing that in man there too exists a characteristic pattern of absorption of the amino acids. This, in turn, may be reflected in the pattern of amino acids in the plasma after absorption and finally in that presented to the tissue cells for the formation of new protein. The fundamental importance of this observation is evident as well as the urgent need for further knowledge of the absorption pattern of amino acid under additional experimental conditions. The preferential absorption of amino acids, without obvious

relation to molecular configuration and physical properties, suggests that specific mechanisms for the absorption of amino acids exist in the intestine.

Conclusion

Thus, through a fortuitous set of circumstances —the timely development of superb analytic techniques, the availability of essential physical facilities and, of course most important, the appearance and co-operation of our congenial subject, Al Drolet—a unique study of amino acid absorption in man has been made possible. It is our hope and expectation that these studies will lead to a better understanding of human protein nutrition and of factors affecting the biosynthesis and maintenance of tissue protein.

References

1. Brock, J. F., and Hansen, J. D. L.: Kwashiorkor and protein malnutrition. A dietary therapeutic trial. Lancet, 2:355, 1955.
2. Brock, J. F., Hansen, J. D. L., and Howe, E. E.: The role of amino acids in kwashiorkor. Am. J. Clin. Nutrition, 4:286, 1956.
3. Johnston, C. G., and Orten, A. U.: Comparative absorption of amino acids from the intestine. S. Forum, 4:523, 1953.
4. Moore, S., Spackman, D. H., and Stein, W. H.: Chromatography of amino acids on sulfonated polystyrene resins. An improved system. Analytical Chem., 30:1185, 1958.
5. Moore, S., and Stein, W. H.: Chromatography of amino acids on sulfonated polystyrene resins. J. Biol. Chem., 192:663, 1951.
6. Orten, A. U.: Chromatography as applied to the study of the absorption of amino acids. J. Michigan M. Soc., 50:750, 1951.
7. Orten, A. U.: Gordon Research Conference on Food and Nutrition, 1958.
8. Orten, A. U., France, C. J., and Koizumi, K.: Application of partition chromatography to study of absorption of amino acids from the intestine. Fed. Proc., 9:211, 1950.
9. Orten, A. U., Gimbel, N. S., and Smith, A. H.: Absorption of mixtures of essential amino acids. Fed. Proc., 16:395, 1957.
10. Orten, A. U., Koizumi, K., France, C. J., and Johnston, C. G.: Comparative absorption of amino acids from the intestine. Fed. Proc., 10:390, 1951.
11. Orten, A. U., Wang, H. L., Gimbel, N. S., and Smith, A. H. Absorption of a protein hydrolysate from thiry loops in human subjects. Fed. Proc., 14:447, 1955.
12. Spackman, D. H., Stein, W. H., and Moore, S.: Automatic recording apparatus for use in the chromatography of amino acids. Analytical Chem., 30: 1190, 1958.
13. Stein, W. H., and Moore, S.: Chromatography of amino acids on starch column. Separation of phenylalanine leucine, isoleucine, methionine, tyrosine and valine. J. Biol. Chem., 176:337, 1948.

AMERICAN PHYSICIAN'S ART EXHIBIT

The Twenty-second Annual Exhibition of Art Works by American Physicians will take place June 8 through June 12 at Convention Hall in Atlantic City, according to announcement by Richard Gwartney, President of the American Physicians Art Association.

Held in conjunction with the annual convention of the American Medical Association, the show will include more than 550 works of art in oil, water color, sculpture, crafts, photography and lithography.

Participants and prospective exhibitors may obtain further information from L. A. Church, Regional Director, APAA, 18456 W. Grand River, Detroit 23, Michigan, and from Dr. Kurt F. Falkson, Secretary of the APAA, 7 East Street, New York 21, N. Y.

The Malabsorption Syndrome and Diarrhea

A Panel Discussion

Introduction

By David J. Sandweiss, M.D. (Moderator)
Detroit, Michigan

IN 1888, Samuel Gee[1] first described what is now known as the malabsorption syndrome. Today, seventy years later, there is still no clear definition and no clear classification of this disease.

In order to avoid possible confusion in nomenclature, I have asked the members of the panel to discuss the malabsorption syndrome in the light of the following classification: primary malabsorption and secondary malabsorption. Primary malabsorption includes coeliac disease in childhood, nontropical sprue or idiopathic steatorrhea in the adult, and tropical sprue. These are still considered to be diseases of unknown etiology. Secondary malabsorption, however, though it may mimic primary malabsorption, includes malabsorption syndromes arising secondary to disease entities affecting the small bowel

Several epoch-making contributions have been made during the last few years. They add much to our knowledge of the pathogenesis of the disease, provide simpler diagnostic procedures and make possible more successful therapeutic regimens. The gentlemen of the panel will discuss these newer developments.

One more introductory remark: The subject assigned to us reads "The Malabsorption Syndrome and Diarrhea." May I state that the subject of diarrhea will be discussed only as it pertains to malabsorption. Time will not permit the discussion of diarrhea, *per se*.

May I now introduce the members of the panel:

Dr. Henry L. Bockus of Philadelphia: Professor and Chairman, Department of Medicine and Gastroenterology, Graduate School of Medicine, University of Pennsylvania. President of the World Gastroenterological Association. Author of many original contributions in the field of gastroenterology. Editor and author of three Encyclopedic volumes on gastroenterology. Dr. Bockus was invited to the Ninety-third Annual Session of the Society especially to present the Andrew P. Biddle Lecture, which is scheduled for 2 P.M. this afternoon. I want to thank you, Dr. Bockus, for your kind participation in this panel.

Dr. David Adlersberg of New York City: Associate Attending Physician for Metabolic Diseases, The Mt. Sinai Hospital of New York. Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City. Dr. Adlersberg has made many important original contributions in the field of malabsorption. He is the editor of the volume on "The Malabsorption Syndrome," recently published—the first volume on this subject that has appeared in the United States.

Dr. Richard H. Marshak of New York: Dr. Marshak is Associate Radiologist of the Mt. Sinai Hospital, New York City. His roentgen studies of the small bowel and colon are widely recognized for their outstanding excellence. We are particularly appreciative of his presence, since he flew here from Washington, where he is in charge of a postgraduate course in "X-ray Examinations of the Small Bowel," given under the auspices of the American Roentgen Ray Society. Thank you, Dr. Marshak. It is, indeed, a privilege to have you here.

The other two members of the panel are, our own: Dr. Arthur R. French of Ann Arbor, Michigan, and Dr. Robert J. Priest of Detroit.

This Panel was held during the 93rd Annual Session of the Michigan State Medical Society, at the Sheraton-Cadillac Hotel, Detroit, Michigan, on Thursday, October 2, 1958, 11:30 A.M. to 1:00 P.M.

Dr. Sandweiss is Chief of Section on Gastroenterology and Attending Physician in Medicine, Sinai Hospital; Physician in Internal Medicine, Harper Hospital; Associate Physician in Medicine, Receiving Hospital; Assistant Clinical Professor, Wayne State University, College of Medicine, Detroit, Michigan.

Dr. French is Associate Professor of Internal Medicine at the University of Michigan Medical School. He is engaged in special studies of malabsorption in all of its phases: physiology, diagnostic procedures, and different therapeutic regimens. Today we are looking forward to a preview of the yet unpublished data of his more recent studies.

Dr. Priest is Associate Physician in the Gastrointestinal Division of Henry Ford Hospital. Dr. Priest and his associate, Dr. Joseph Rinaldo, Jr., have been conducting a special study of the comparative value of several absorption tests. They have had, also, considerable experience with the gluten-free diet. Dr. Priest is president of the Detroit Gastroenterological Association.

May I call first, on Dr. Adlersberg who will open the panel with a talk on "Pathogenesis of Primary Malabosrption." He will be followed by the other members of the Panel without further introduction.

Bibliography

1. Gee, S.: On the coeliac affection. S. Barthol. Hosp. Report, 24:17, 1888.

Pathogenesis of Primary Malabsorption Syndrome

By David Adlersberg, M.D.

New York, New York

PRIMARY malabsorption syndrome includes several clinical entities: Celiac disease of childhood, tropical sprue and non-tropical sprue. It must be strictly separated from the secondary malabsorption syndrome caused by gross involvement of the small bowel in such diseases as lymphosarcoma, amyloidosis and jejunoileitis, or resulting from extensive resection of the small bowel, or from liver or pancreatic disease.

According to the present concept, primary malabsorption syndrome is a genetically-transmitted complex metabolic disorder, the main facets of which are intestinal malabsorption and hematologic abnormalities.[2] In addition, there are many other metabolic disturbances including the metabolism of proteins, carbohydrates, lipids, electrolytes, water, and hematopoietic factors which are not necessarily related to the defects in absorption. Profound disturbances in genetically-controlled enzymatic chain reactions seem to affect intestinal absorption as well as the metabolism of the other factors mentioned above.

Based on the genetic anlage, the malabsorption syndrome may become manifest at various periods of life: In infancy or childhood as celiac disease, or later in life as tropical and non-tropical sprue. Actually, a number of adults with primary malabsorption syndrome present celiac disease in childhood. Distress of tropical climates, malnutrition and infections are probably important precipitating factors which will convert a predisposed person into a patient with manifest malabsorption syndrome. Whether wheat or rye gluten represents a dietary triggering mechanism or is more profoundly involved in the basic metabolic defect of primary malabsorption remains to be established.

In our climate, we are mostly concerned with one clinical entity of the primary malabsorption syndrome, non-tropical sprue. The outstanding symptoms of non-tropical sprue are diarrhea, weakness, weight loss, glossitis, abdominal distention and, not infrequently, hemorrhagic manifestations, tetany, parathesias and bone pain. The diagnosis is based on the presence of steatorrhea, anemia and exclusion of the diseases causing secondary malabsorption.[4] A characteristic pattern of the small bowel on x-ray examination ("sprue pattern"), flat glucose and vitamin A tolerance tests, negative Schilling test, hypocholesteremia, hypocalcemia, osteomalacia and certain findings in the peripheral blood and bone marrow support the diagnosis.[3,6,9]

Clinical evidence would suggest that the primary malabsorption syndrome is caused by a derangement or a defect in the small bowel. Since a number of patients with primary malabsorption

Dr. Adlersberg is Associate Attending Physician for Metabolic Diseases, The Mount Sinai Hospital; Assistant Clinical Professor, College of Physicians and Surgeons, Columbia University.

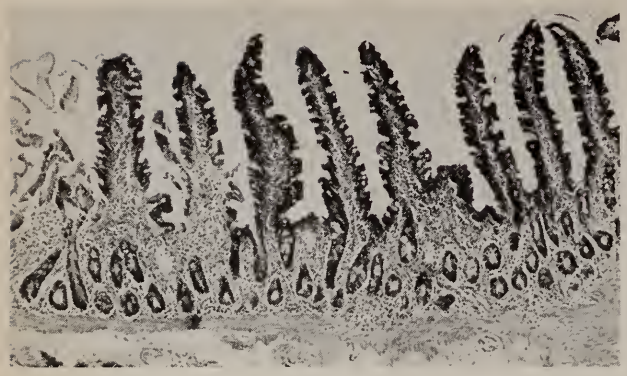


Fig. 1. Jejunal biopsy specimen. Note finger-like appearance of normal villi.[8]

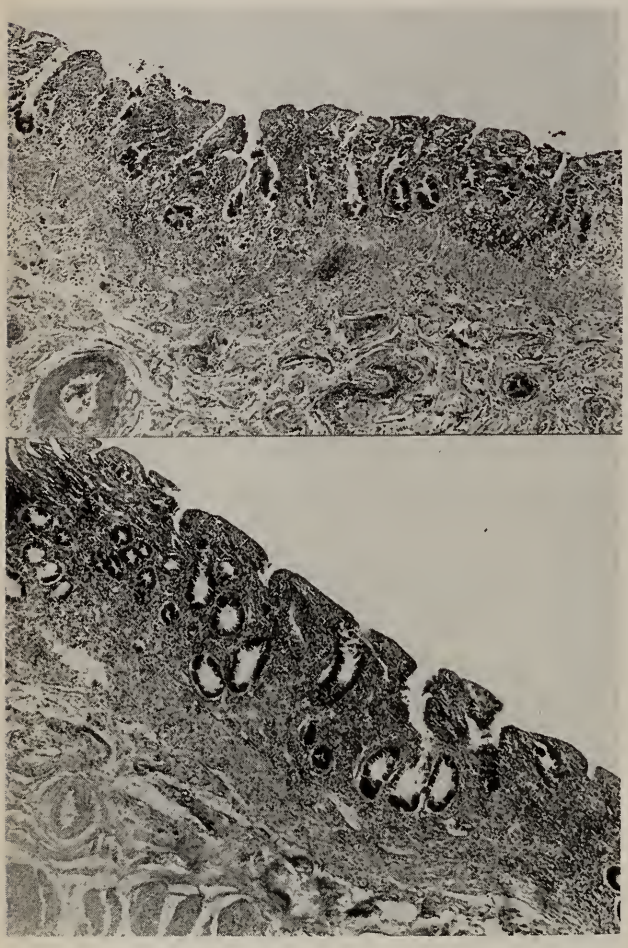


Fig. 3. Flattening, thickening, and clubbing of jejunal villi as seen in two autopsy cases with non-tropical sprue.[8]

syndrome present at autopsy and biopsy some morphologic change in the small bowel, it would appear that these changes are causally related to the clinical manifestations.[1,7,8,10] The pathologic changes in the small bowel seen in the advanced cases are characterized macroscopically and microscopically by marked atrophy of the small intestinal mucosa. In some instances, blunting and

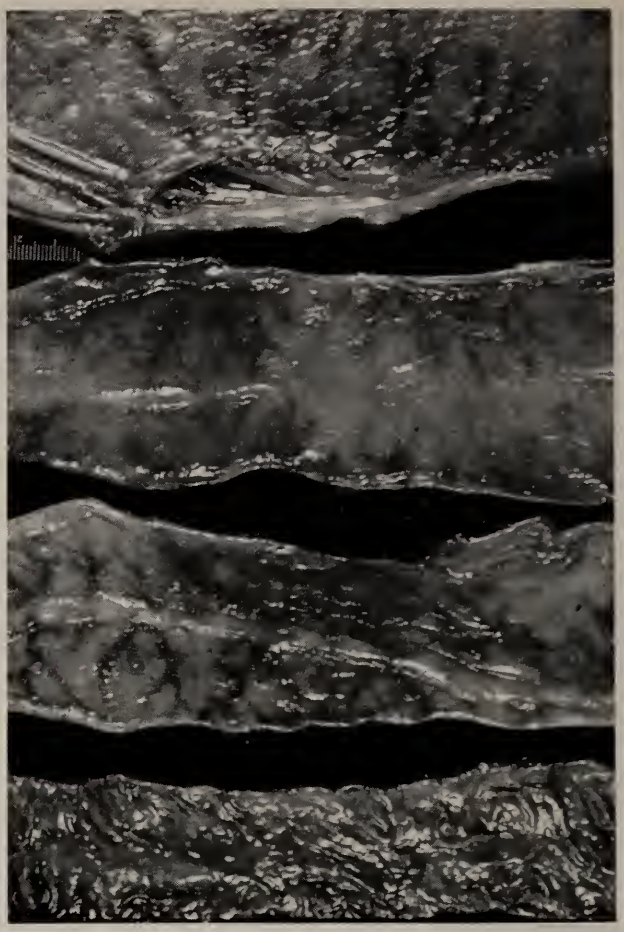


Fig. 2. Autopsy material showing atrophy and thinning of wall of the small bowel in a patient with non-tropical sprue.[8]

thickening of the villi; in others, almost complete atrophy of the villous layer, may be seen (Figs. 1-4). These changes obviously lessen the surface area available for absorption.

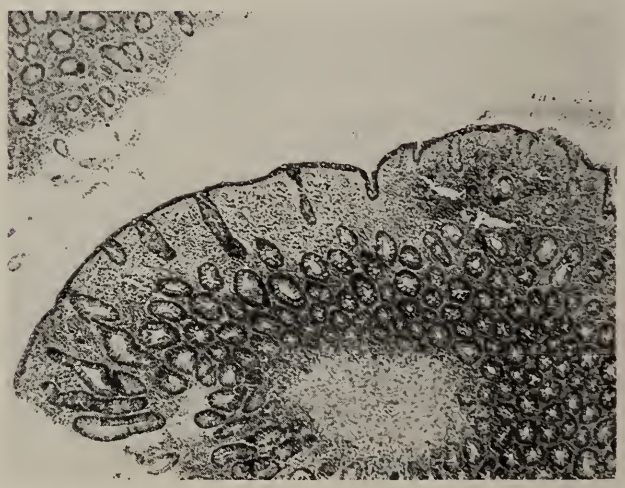


Fig. 4. Jejunal biopsy in a patient with non-tropical sprue of long duration. Note complete absence of villi and fusion resulting in a radical change of the architecture of mucosa.[8]

The changes in the small bowel may be the result of alterations in small bowel motility, stasis, absorption of abnormal products or perhaps lack of specific nutritional factors such as vitamin B_{12}, folic acid and other as yet unidentified compounds, or they might be the result of some deranged enzymatic mechanisms in the intestinal mucosa and thus be a part of the basic disturbance in malabsorption. Experience with small intestinal biopsies seems to indicate that the severe atrophy of the mucosa is, to a certain extent, characteristic of nontropical sprue. In tropical sprue, the changes observed by others and us seem to be milder in character.[5]

Patients with pernicious anemia, prolonged steatorrhea caused by pancreatic disease and with chronic diarrhea of various etiology do not exhibit the atrophy of the small intestinal mucosa seen in primary malabsorption syndrome. It must be emphasized that the same degree of atrophy of the mucosa may be seen in patients with non-tropical sprue in full remission, normal nutritional status, and in absence of steatorrhea.

The question arises then, as to how, during full remission, normal absorption can be maintained despite severe atrophy of the mucosa. Whether atrophy of the small bowel mucosa and malabsorption are actually causally related and whether the atrophy is at all reversible remains to be established.

Summary

Primary malabsorption syndrome includes several clinical entities which are probably varieties of the same inborn metabolic disorder. In addition to the absorption defect, other metabolic abnormalities are observed. It is not clear at present whether the characteristic changes of atrophy of the small intestinal mucosa seen at autopsy and in biopsies of patients with primary malabsorption syndrome are due to a specific enzymatic or nutritional defect or whether they result from some toxic or other influences. The use of the small intestinal biopsy represents a valuable technique of studying intestinal malabsorption.

References

1. Adlersberg, D., and Schein, J.: Clinical and pathological studies in sprue. J.A.M.A., 134:1459, 1947.
2. Adlersberg, David: Introduction. *In* The Malabsorption Syndrome. p. 3. New York: Grune & Stratton, 1957.
3. Adlersberg, David; Wang, Chun-I; and Bossak, Elaine T.: Disturbances in protein and lipid metabolism in malabsorption syndrome. *In* Adlesberg, David (ed.): The Malabsorption Syndrome. p. 32. New York: Grune & Stratton, 1957.
4. Bossak, Elaine T., Wang, Chun-I, and Adlersberg, David: Clinical aspects of the malabsorption syndrome (idiopathic sprue): Observations in 94 patients. *In* Adlersberg, David (ed.): The Malabsorption Syndrome. p. 112. New York: Grune & Stratton, 1947.
5. Butterworth, C.E., and Perez-Santiago, E.: Pathologic changes in jejunal biopsies from sprue patients; a preliminary report. Am. J. Digest. Dis. (N.S.), 2:659, 1957.
6. Cooke, W. Trevor: Water and electrolyte upsets in the steatorrhea syndrome. *In* Adlersberg, David (ed.): The Malabsorption Syndrome. p. 47. New York: Grune & Stratton, 1957.
7. Himes, Hillard W., and Adlersberg, David: Pathologic studies in idiopathic sprue. *In* Adlersberg, David (ed.): The Malabsorption Syndrome. p. 77, New York: Grune & Stratton, 1957.
8. Himes, Hillard W., and Adlersberg, David: Pathological changes in the small bowel in idiopathic sprue: Biospy and autopsy findings. Gastroenterology, 35:142, 1958.
9. Oxenhorn, Sanford; Estren, Solomon; and Adlersberg, David: Intestinal uptake of vitamin B^{12} in the malabsorption syndrome. *In* Adlersberg, David (ed.): The Malabsorption Syndrome. p. 58. New York: Grune & Stratton, 1957.
10. Shiner, Margot: Small intestinal biopsies by the oral route: Histopathologic changes in the malabsorption syndrome. *In* Adlersberg, David (ed.): The Malabsorption Syndrome. p. 99. New York: Grune & Stratton, 1957.

Absorption Tests in the Diagnosis of Intestinal Malabsorption

By Arthur B. French, M.D.

Ann Arbor, Michigan

THE demonstration of deficiency symptoms commonly due to failure of intestinal absorption may strongly suggest the diagnosis of malabsorption. However, in order to firmly establish the diagnosis it is necessary to demonstrate inability to absorb major components of the diet. Diagnostic tests determine the loss of food or a test substance in stool or its appearance in the blood stream or in the urine after it has been absorbed.

Direct determination of fecal fat content is the best single index of intestinal absorption. When this is measured by the van de Kamer method[6] normals average 3 gm. per day and seldom exceed 8 gm. per day. Loss of over 10 gm. per day is definitely abnormal. The van de Kamer method measures titratable fat, the total of free and esterified fatty acid. If fat is measured by weighing, as in the Saxon[5] or Fowweather[2] methods, other lipids including cholesterol are included and normal stool losses may be higher. For diagnostic purposes it is not necessary to relate fecal losses to dietary intake if intake of fat exceeds 75 gm. per day.

For following patients and for children whose dietary intake is small, it is important to express results in per cent of fat intake which appears in stool and to remember that while normal adults seldom lose more than 10 per cent or at most 15 per cent of ingested fat in the stool, children less than a year old may lose up to 15 per cent and children less than six months old, up to 25 per cent of ingested fat. Fecal fat losses in all our patients with untreated primary malabsorption have been greater than 12 gm. per day or 13 per cent of intake. Indeed, except for two patients with relatively quiescent celiac disease, they have exceeded 20 gm. per day or 30 per cent of intake, so separation of normal from abnormal is excellent.

In order to smooth out day-to-day variations in stool volume, it is desirable to perform the analysis on a three-to five-day collection. At times the weight of fat in stool is expressed in relation to dry weight of stool in an effort to avoid the necessity of accurately timed and complete collections. Since dry bulk of stool increases along with fecal fat in sprue, this method of expressing results is insensitive and does not satisfactorily separate normal from abnormal patients.

Since fecal fat analyses sometimes are not easily available, it is often necessary to use less satisfactory indices of intestinal absorption. The nutritional state of the patient, signs of specific deficiency states such as tetany, hemorrhagic tendency . . . and laboratory evidence of these deficiencies such as low calcium, prothrombin, hemoglobin, albumin, cholesterol or carotene levels in blood provide evidence suggestive but not diagnostic of malabsorption. These signs indicate that further study is necessary, but in each case there are other disease states in which the abnormality is found. Since they are really indices of general or specific nutritional deficiencies, rather than direct indices of absorption defects, they are often absent in mild and recently acquired absorption defects. The presence of a number of these signs makes the likelihood of malabsorption high. The combination of low cholesterol (below 100 mg. per 100 ml.) and low albumin (below 3.5 gm. per 100 ml.) is very strongly suggestive of malabsorption.

Fecal losses may be roughly evaluated by gross and microscopic examination. Most fatty stools float but so do many others. Many are greyish and bulky but some are loose and watery. Increased meat fibers, starch granules and fat globules are found on microscopic examination in about 75 per cent of cases with significant malabsorption, but both false positives and false negatives occur. The reliability of the Sudan stain or fecal fat may be somewhat increased by heating the stool suspension with glacial acetic acid before adding the alcoholic solution of Sudan IV.

After administration of a test substance, more reliable indices of absorption can be obtained. Blood curves give evidence concerning rate of absorption rather than total absorption and they

From the Gastrointestinal Section, Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan.

do not quantitatively reflect losses as measured in stool. In general, they serve better as screening tests to determine the presence or absence of malabsorption. They are rather unsatisfactory for quantitation of the degree of malabsorption or for following a patient's progress. However, as screening tests the vitamin A tolerance test or the I^{131} triolein blood curves provide the most reliable information available in the absence of fecal fat analyses. Vitamin A should be given as the palmitate ester since this is more readily absorbed than the alcohol and it is also better absorbed in the presence of fat such as olive oil. We use 5000 I.U./kg. of vitamin A palmitate in 0.5 ml. olive oil per kg.; 90 per cent of normals show a rise to over 500 I.U./100 ml. of blood at 4 to 6 hours Patients with primary malabsorption rise less than 250 I.U./100 ml. before therapy. However, 10 per cent of normals have flat curves and in secondary malabsorption, particularly after gastrectomy, there are both falsely high and falsely low curves.

I^{131} triolein blood curves give results very similar to those with vitamin A curves, but glucose tolerance curves are distinctly less reliable. Although most patients with primary malabsorption have flat curves, so will many normals, while several types of secondary malabsorption are accompanied by high glucose curves.

Where an isotope unit is available for thyroid tests it will be convenient to use I^{131} triolein blood curves, while if this is not available the vitamin A methods of May, Blackfan et al[3] or of Paterson and Wiggins[4] are not difficult and are fairly widely available.

Fecal radioactivity determinations after I^{131} triolein do not, according to our studies, separate normals from abnormals in borderline cases as well as the blood curves. However, they provide a more nearly quantitative index of fat losses than do blood curves and are preferable for following the patient's course.

The d-xylose test,[1] measuring the output of d-xylose in a five-hour urine collection after giving a 25 gm. test dose, is gaining popularity. The chemical determination is almost as simple as that of blood I^{131} or vitamin A, and no venipuncture is required. However, while it has been shown to separate patients with clear cut primary malabsorption from normals, it has not yet been shown to be a quantitative index of steatorrhea or to separate borderline abnormals from normals. The most common type of malabsorption is that following gastrectomy, while that occurring with regional enteritis is about as common as primary malabsorption. It is in these diseases that different tests are particularly likely to give divergent results. The same can be said of the serum carotene level. It has been shown to be a rough screening test but it has not been shown at what level of steatorrhea it becomes abnormal. In other words we do not know whether it shows up all patients with steatorrhea or only the severe ones. We also do not know how useful the test is in secondary sprue, in post-gastrectomy steatorrhea or in pancreatic insufficiency. On theoretical grounds it is an index of nutrition, not of absorption. Once these areas of ignorance are clarified we will know how much we can depend on d-xylose and serum carotene tests.

Thus chemical fecal fat determinations on a three- to five-day collection provide the most reliable index of malabsorption. When this is not available, vitamin A or I^{131} triolein blood curves after a test meal provide reasonably good separation between normals and abnormal patients. Fecal I^{131} determinations are useful for following patients. The d-xylose is promising but only partly proved.

References

1. Benson, J. A., Jr., Culver, P. J., Ragland, S., Jones, C. M., Drummery, G. D., and Bougas, E.: The d-xylose absorption test in malabsorption syndromes. New England J. Med., 256:335-339, 1957.
2. Fowweather, F. S.: The determination of the amount and the composition of the fat of faeces. I. Investigation of a "wet" method and comparison with the "dry" methods. Brit. J. Exper. Path., 7:7-14, 1926.
3. May, C. D., Blackfan, K. D., McCreary, J. F., and Allen, F. H., Jr.: Clinical studies of vitamin A in infants and in children. Am. J. Dis. Child., 59:1167-1184, 1940.
4. Paterson, J. C. S., and Wiggins, H. S.: Estimation of plasma, vitamin A and vitamin A absorption test. J. Clin. Path., 7:56-60, 1954.
5. Saxon, G. J.: A method for the determination of the total fats of undried feces and other moist masses. J. Biol. Chem., 17:99-102, 1914.
6. van de Kamer, J. H.; ten Bokkel Huinink, H.; and Weyers, H. A.: Rapid method for determination of fat in feces. J. Biol. Chem., 177:347-355, 1949.

The Roentgen Findings in the Malabsorption Syndrome

By Richard H. Marshak, M.D.
New York, New York

IT has long been recognized that disorders of absorption from the gastrointestinal tract may be reflected in abnormalities of the radiographic pattern of the small intestine. These changes have heretofore been considered nonspecific since they can be found in a variety of conditions, some associated with malabsorption, such as sprue, Whipple's disease, lymphosarcoma, and others having no relation to malabsorption such as hookworm disease, hyperthyroidism, allergy and emotional disturbances. These roentgen findings, namely dilatation of the bowel lumen, segmentation of the barium column, hypersecretion, motility changes and alterations in mucosal markings, have been included under the terms "deficiency pattern" and "disordered motor function," and in themselves have not been diagnostic of any particular physiologic disorder or disease entity. It is true that some degree of dilatation, segmentation and hypersecretion may occur in many unrelated diseases; however, when the changes are marked and occur in particular combinations, they are usually found only in association with certain malabsorptive states, in particular sprue, lymphosarcoma and Whipple's disease. The roentgen findings, therefore, are more specific than hitherto suspected and sufficiently characteristic to be of diagnostic value.

The term "malabsorption syndrome" has recently been applied to diseases which are characterized by alterations in absorption of nutrients from the intestinal tract. Fats, because of the insolubility in acqueous solutions, are relatively difficult to absorb. It follows, therefore, that difficulties which patients have with intestinal absorption are often characterized by excessive amounts of fat in the stool.

The causes of symptomatic steatorrhea can be classified into three main groupings: (1) idiopathic steatorrhea, (2) secondary steatorrhea (organic lesions of the gastrointestinal tract), and (3) pancreatogenous steatorrhea. Since these three groups represent the majority of cases with symptomatic steatorrhea, the roentgen findings encountered in these cases will be described.

Dr. Marshak is Associate Radiologist, Mt. Sinai Hospital, New York, New York.

Idiopathic Steatorrhea (Sprue)

Dilatation.—Dilatation of the lumen of the small intestine is one of the most important and constant findings in sprue. Some of the features of the sprue pattern are seen in other disorders, but in none is dilatation more striking or constant than that associated with sprue.

Dilatation is usually best visualized in mid and distal jejunum. It is not as common in the ileum as elsewhere in the small intestine. On occasion, the entire small intestine is affected. The dilated loops are generally long, tortuous in course and have pliable walls. The valvulae conniventes are prominent.

The degree of dilatation is variable and often a single intestinal segment may manifest varying degrees of dilatation during the course of a single roentgen study. In general, it appears to be related to the severity of the disease and is most marked in the advanced cases.

The large intestine may show dilatation which can be pronounced.

Segmentation.—Segmentation is the second most frequent finding in the sprue pattern.

The term segmentation in this study has been restricted to indicate only those masses of barium which are large, clearly separated from the adjacent clumps and usually within dilated bowel segments containing excessive secretions.

Segmentation is most marked in the ileum and observed best in the more advanced cases. Two forms are noted, immediate and delayed. The more common form is delayed segmentation, i.e., segmentation occurring in intestinal segments in the process of evacuation, and ranging from mild to moderate severity. The less common immediate segmentation, occurring in more severe cases, is seen as soon as the barium enters the small intestine and persists throughout the study. The differ-

ence between the two forms of segmentation may be accounted for by the amount of secretions within the intestinal tract. In those patients with markedly increased secretions, segmentation appears to be immediate.

Between the segmented clumps of barium, worm or string-like strands of barium are often noted. These seemingly collapsed intestinal segments are usually associated with segmentation. They are inconstant and vary from film to film, appearing to be due to altered motor activity of the bowel segment, or to incomplete filling as the barium stream passes through a secretion-filled intestinal loop.

A faint, irregular stippling of residual barium may be seen in the jejunum as the barium leaves this area. This is a normal finding. In sprue, however, the residuum may present a coarse, mottled, amorphous appearance, somewhat resembling melting snowflakes. This has been called fragmentation or scattering and is usually associated with segmentation and increased secretions.

Hypersecretion.—An excessive amount of secretion in the intestinal tract is a constant phenomenon in most cases showing the sprue pattern and especially in those with marked segmentation. Air fluid levels may be seen occasionally during the course of the study. In contrast to the usual homogenous appearance of the barium in the normal small intestine, the barium in sprue has a coarse, granular appearance with areas of flocculation dispersed irregularly in the barium-filled loops.

Thickening of the Folds.—When dilatation of the small intestine occurs, particularly in the jejunum, whether due to mechanical or functional changes, the mucosal folds rather than appearing flattened become prominent and seemingly enlarged. In sprue, for example, the valvulae conniventes in the dilated jejunum appear remarkably conspicuous. This is in contrast to the usual autopsy findings of a smooth atrophic mucosa. The dynamic state of the bowel is not reflected in the postmortem findings and it would appear that prominent mucosal folds produced by an active muscularis mucosa are lost.

In lymphosarcoma or Whipple's disease, the thickening of the mucosal folds in the small intestine is more readily understandable. The actual infiltration of the mucosal and submucosal layers of the bowel wall and obstruction of the lymphatics produce thickening, stiffening and rigidity of the infiltrated area with accompanying reactive edema.

Transit Time.—Transit time refers to the interval during which the barium traverses the entire small intestine and enters the cecum. The average time in adults has been found to be approximately three hours; however, a wide range of normal variations is seen. In most patients with sprue, transit time varies from three to five hours. Occasionally, it is less. Somewhat more frequently it can be slightly prolonged. Rarely is there marked prolongation of transit time. Marked prolongation of transit time in sprue has often been reported. That we have not observed this finding, however, may be accounted for by the fact that in utilizing larger quantities of barium than are generally employed, the tendency to puddling of barium in a single dilated segment can be overcome.

Moulage Signs.—This term refers to the appearance of small intestine in sprue which resembles a tube into which "wax has been poured and allowed to harden" occasioned by apparent effacement of the mucosal folds. It is most frequently noted in association with hypersecretion and segmentation.

The Appearance of the Small Intestine in Sprue Following Therapy.—The impression of improvement in the small intestinal pattern in patients treated for sprue must be evaluated with care because marked variations in appearance of the small intestine occurring from study to study or even during the course of a single examination may be seen. In this study, there is a discrepancy between the degree of clinical improvement under therapy and the roentgen changes observed. In only a few instances did the sprue pattern lessen in intensity or disappear.

Secondary Sprue

Lymphosarcoma.—Most cases of lymphosarcoma of the small intestine do not produce the sprue pattern nor are they associated with the clinical finding of malabsorption. Occasionally, there is a diffuse infiltration of the submucosa of the small intestine and mesenteric lymphatics producing a malabsorption syndrome with steatorrhea, excessive fatty acids in the stool and other laboratory evidence of malabsorption.

In six of the forty-two patients with lymphosarcoma involving the small intestine this situation

prevailed. The roentgen findings in these six patients are of interest. In four, the sprue pattern was seen with segmentation, dilatation, hypersecretion, and scattering. In two patients, in addition

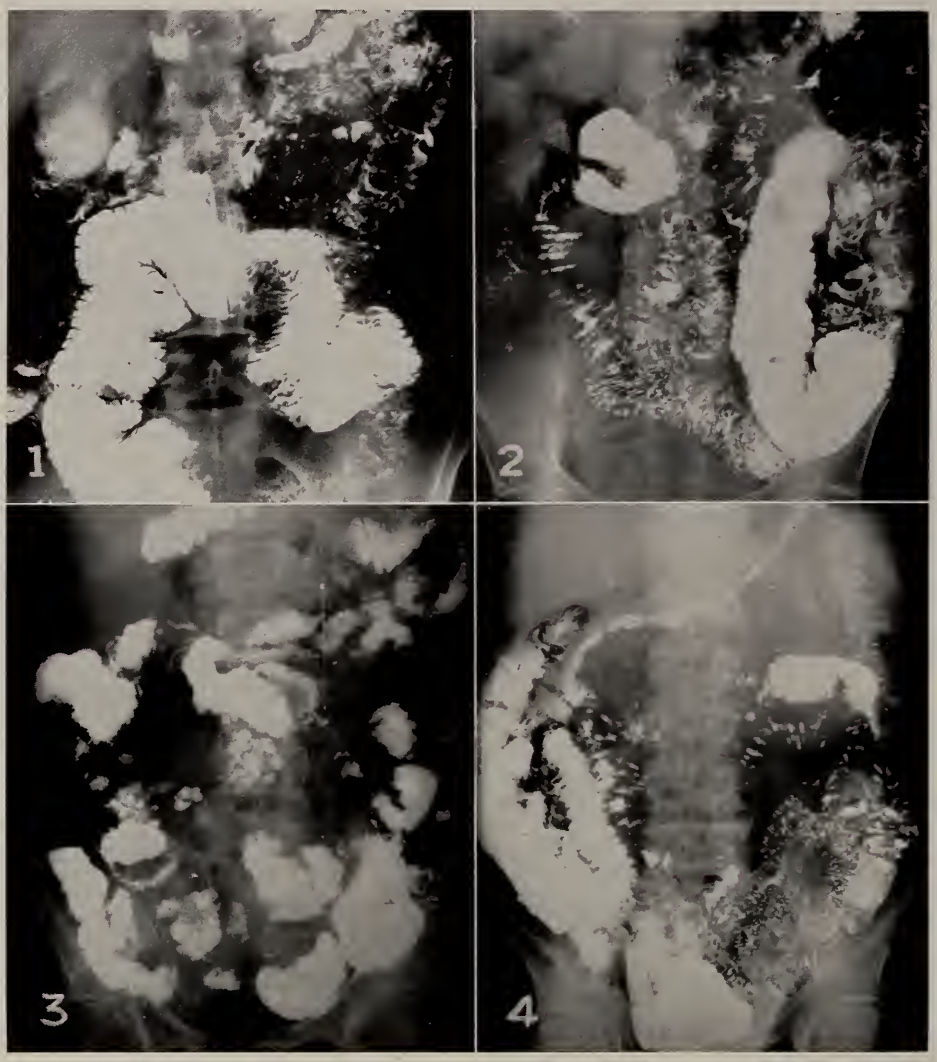


Fig. 1. Moderate dilatation of the midportion of the jejunum. There is no evidence of rigidity. The loops are pliable, distensible with no evidence of an inflammatory process.

Fig. 2. Delayed segmentation and fragmentation. The segmented loops are dilated, large and contain excess fluid.

Fig. 3. Immediate segmentation involving the entire small bowel. There is complete absence of the normal valvulae conniventes (moulage sign).

Fig. 4. Delayed segmentation, fragmentation, minimal dilatation.

to the above findings, there was thickening of the bowel wall suggestive of tumor infiltration. The sprue pattern was seen only in those patients with marked steatorrhea and increased fatty acids in the stool.

Whipple's Disease.—Four patients were studied. In three, there was clinical evidence of severe malabsorption and after prolonged observation, the diagnosis of Whipple's disease was made after histologic study. The roentgen findings in these patients were those of the sprue pattern. In the fourth patient, who had diarrhea without significant steatorrhea or other evidence of malabsorption, the small intestine appeared normal radiologically. Again, it is noted that the sprue pattern was seen only in the presence of marked steatorrhea and excessive fatty acids in the stool.

Pancreatogenous Steatorrhea

In contrast to the marked alterations in the appearance of the small intestine in primary and in

some cases in secondary sprue, the roentgen findings in pancreatogenous steatorrhea are essentially normal. On occasion, minimal dilatation of the small intestine may be seen. The lack of changes in the small intestine in pancreatic disorders associated with steatorrhea and malabsorption has been documented in the literature.

Summary and Conclusions

The mechanism of production of functional changes in the small intestine has been little understood and all variations in the appearance of the small bowel which were considered functional were grouped under the term "deficiency pattern." It has been recognized for many years that deficiency no longer is the basic factor responsible for the changes observed. The continued use of this term has prevented the recognition of specific patterns within this all-inclusive group.

Our studies suggest that the severe functional alterations of sprue are usually associated only with marked steatorrhea (fatty acids) and are most often seen in idiopathic steatorrhea. The sprue pattern may also be seen with a slightly lessened intensity in secondary steatorrhea (Whipple's disease and lymphosarcoma). It is suggested, therefore, that the term "sprue pattern" be used to designate these changes.

When minimal functional changes occur in the small intestine, they may be caused by malabsorptive disease; however, these changes are not specific and can also be caused by other diseases unrelated to malabsorption. A differential diagnosis cannot be made from the roentgen findings alone, but when the roentgen changes are evaluated in the light of the clinical abnormalities, the significance of the functional abnormalities may become clear.

Primary Malabsorption

Clinical Features and Differential Diagnosis

By Henry L. Bockus, M.D.

Philadelphia, Pennsylvania

OBVIOUSLY, in the time allowed, this can be nothing more than a brief outline—a panorama of the field.

By definition, we are discussing that group of patients with intestinal malabsorption, not the result of any primary known disease. Primary diseases of the small bowel and its mesentery (enteritis, tuberculosis, et cetera), short small intestine, pancreatic insufficiency, known constitutional diseases secondarily affecting absorption, such as collagen diseases, sarcoid, amyloid, diseases of the liver . . . are excluded. In other words, we are discussing a syndrome, the result of intestinal malabsorption and assimilation of *unknown etiology*.

Symptom Configuration.—On the basis of mechanism of symptoms, the clinical features may be fitted into two categories: The first are those which are the result of the effect of unabsorbed food-stuffs on the organism, including the symptoms secondary to the irritation which unabsorbed foods and their by-products may cause. The primary symptom here is the change in bowel habit and the character of the feculent discharges. Characteristically, the stools are large, mushy, rancid and foul-smelling, often containing gas and some mucus. Varying degrees of diarrhea, flatulence, and bloating accompany the exacerbations.

The second group of symptoms are those which may be attributed to deficiencies of various vital elements as a result of malabsorption and malassimilation. It may be mentioned at the onset that the appetite is often preserved but weight loss may be striking. Protein losses are often expressed first as hypoalbuminemia giving rise to edema. The loss of calcium and phosphorus may be giving rise to muscle irritability, tetany and changes in bone texture with symptoms the result of hypoprothrombinemia, and the various changes secondary to vitamin B Complex deficiencies including neuritis, pellegra, glossitis, and stomatitis. Symptoms the result of anemia may be present, par-

From the Department of Medicine and Gastroenterology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

ticularly weakness, edema and lassitude. Electrolyte deficits particularly potassium and sodium, may cause additional malaise. Nervous irritability, nervous hypersensitivity, depression and hysteroid manifestations are not too rare.

One may well inquire: how common is the primary malabsorption syndrome? In its advanced stage when readily recognized, the syndrome is relatively rare. For some reason or other, it does not occur in oriental persons. If one includes latent or very mild manifestations, it is likely that the condition may not be rare.

History and Course of the Disease.—The disease often manifests itself before the age of five or after the age of twenty-five. Sant Agnese posed the query several years ago of why this should be so; before the age of five, the syndrome is that of Gee's Celiac Disease and a moderate number of patients seen in adult life give a history of having had a similar illness in early childhood. No one has explained satisfactorily the long latent period which so often occurs in these cases. One must keep in mind that there is probably some type of hereditary constitutional defect, or hypersensitivity or that the disease in many instances is familial, and often affects more than one sibling.

Another clinical feature of interest is the apparent remissions and relapses which may occur spontaneously. Aggravations may be related to the eating of excessive fats, the ingestion of starches and sweets of various types, emotional stress, pregnancy, infection, dietary deficiency or the taking of antibiotics.

Diagnosis.—In the screening of the patient suspected of having a primary malabsorption syndrome, certain characteristics may be noted on physical examination. Many have claimed that one seldom sees the disease in patients with dark hair. Others comment on the rather sparse hair of the person afflicted and on the tendency toward increased skin pigmentation. A triangular facies has been described by some authors. One may note mucous membrane and skin changes as a result of the anemia or vitamin B and C deficiencies. Clubbing, edema and low blood pressure are not rare. The abdominal examination is often characteristic, particularly during a relapse; the abdomen usually is quite markedly distended and has a characteristic doughy feel.

A quick screening available to all practitioners will usually cause one to arrive at a working diagnosis of the malabsorption syndrome. This includes the gross and microscopic examination of the feces demonstrating the large, fatty stools which are highly rancid. The hemogram may show an anemia which may be macrocytic or microcytic. The blood chemical studies may well demonstrate hypoalbuminemia, hypocholesterolemia, hypoglycemia and decreases in the concentration of calcium and prothrombin. In the majority of cases, the roentgen configuration of the primary malabsorption syndrome is highly suspicious or almost pathognomonic. With this combination of findings, or with positivity of some of these findings, one may then procede with the specific absorption tests just described for the establishment of a definitive diagnosis.

In outlining the *differential diagnosis,* the following are briefly discussed:

1. Tropical sprue *versus* non-tropical sprue.
2. Pancreatogenic steatorrhea *versus* the steatorrhea associated with primary malabsorption.
3. Primary *versus* secondary malabsorption.
4. The differential diagnosis of chronic diarrhea.

In *tropical sprue* as compared with the so-called "primary malabsorption syndrome," provocative initiating factors such as chronic severe enteric infection and infestations and subnutrition seem to play a much more important role. Stools are usually more liquid and more frequent; they are likely to be more fermentative and gassy. The anemia is much more often macrocytic with a megaloblastic bone marrow and at times with spinal cord symptoms. The occurrence of sore mouth with glossitis and stomatitis is more striking. The roentgen nutritional deficiency pattern characteristic of intestinal malabsorption is not as striking in tropical sprue. There seems to be a lesser incidence of tetany and of bleeding and a less frequent finding of hypocalcemia, hypoalbuminemia and bone demineralization. In tropical sprue, contrasted with primary malabsorption, response to folic acid and to liver extract and B_{12} is usually striking and recovery may be complete with these remedies. Incidentally, the incidence of the tropical variety of sprue is decreasing in many parts of the world.

Pancreatogenic Steatorrhea.—More consideration is given to steatorrhea of this origin in patients

in the older age groups, since either neoplasm or chronic pancreatitis is usually the cause. Weight loss may be very marked and usually the diarrhea is less severe, stools less watery and gaseousness less striking. Ordinarily, there is less fermentation in the stool, and it is less rancid in odor. Usually distention of the abdomen is less prominent than in the sprue-like states. The screening tests are more likely to show a hyperglycemia and secondary nutritional deficits are less common. Microscopically, the stools frequently contain more neutral fat and muscle fibers than is seen in the primary malabsorption syndrome. The differentiation is quite easily made when fat-nitrogen balance studies, secretin and starch absorption tests are carried out and the differentiation is also aided by the labeled fat absorption tests. Evidence of pancreatic disease may be supplied by x-ray and serum enzyme studies.

Primary versus Secondary Malabsorption.—Malabsorption and faulty assimilation may accompany many diseases of the small bowel and its mesentery or it may accompany a decrease in the absorptive surface of any cause (resections, fistulas, et cetera). Bowel symptoms, nutritional deficits and, at times, roentgen abnormalities may closely simulate the features of primary malabsorption. Almost always, however, distinctive diagnostic features of the primary disorder are sufficiently clear to permit of the organization of proper therapy. The minutae of differential diagnosis cannot be attempted here.

Differentiation of Chronic Diarrhea.—Emotional diarrhea and allergy have importance in this discussion. Neither of these conditions is associated with a great degree of steatorrhea. The diarrhea is likely to be more precipitous and there is almost never any associated nutritional deficits.

Finally, it may be stated that the diagnosis of the well-established case of primary malabsorption syndrome may be suspected as a result of the ordinary clinical analysis and proved without much doubt with the addition of x-ray and the newer absorption tests. In the very mild cases, the diagnosis may remain in doubt for some time and with every available tool, including the new absorption tests, jejunal biopsy, and x-ray, there may remain an element of doubt until the condition worsens or a striking relapse occurs.

Therapy of Primary Malabsorption

By Robert J. Priest, M.D.
Detroit, Michigan

MANAGEMENT of patients with primary malabsorption has been difficult in past years. The object has been to accomplish clinical improvement by correcting the presenting symptoms of nutritional malabsorption, anemia, vitamin deficiencies, hemorrhagic disorders, osteomalacia, and diarrhea. The former empiricism has been superceded by some progress toward a rational therapy.

The most recent progress in the therapy of sprue has been in its dietary management. Following observations in Holland[3,12] after World War II, that children with celiac disease improved when wheat flour or rye flour were excluded from their diets, clinicial trials in England and in this country[1,5,10] have demonstrated a favorable response in many adults. The protein fraction of the flour (gluten) has been identified as the substance to be excluded from the diet, rather than the starch content of the flour. Many patients have responded favorably, but failures are to be expected. Before accepting the trial of a gluten-free diet as a failure, a critical review is indicated of the patient's diet diaries. Although a normal diet is allowed in all respects except for gluten, the patient may unsuspectingly ingest gluten in prepared foods, soups, or breakfast cereals. A clinical trial up to six months has been recommended before deciding to discontinue the gluten-free diet.

The basic diet for the management of the malabsorption syndrome has been a high-protein, low-fat, high-vitamin diet. Preferably, carbohydrates include simpler sugars rather than starches. A bland diet is indicated with simple ingredients. Not

From the Division of Gastroenterology, Henry Ford Hospital, Detroit, Michigan.

infrequently the multiple deficiencies of calcium, iron, and vitamins do not respond adequately to dietary management. Supplements of the oil-soluble vitamins, A, D, and K may be essential. If manifestations of hemorrhage are confirmed by finding hypoprothrombinemia, parenteral vitamin K is indicated. Water-miscible preparations of vitamins A and D are now available. Although more expensive, their use is indicated in the hope that the water miscible material is more readily absorbed from the intestinal tract than oily vitamins. The B complex vitamins can be given parenterally if the patient has glossitis or skin lesions. Some patients with primary malabsorption do not tolerate the oral administration of multiple vitamins owing to symptoms of flatulence or pyrosis. Every patient should receive supplemental vitamin therapy during initial treatment. Even if the initial management of sprue is limited to the gluten-free diet as a therapeutic trial, vitamin supplements should be included in the program.

The macrocytic anemia of primary malabsorption may respond to pteroyl-glutamic acid or vitamin B_{12}. The response to the oral administration of folic acid is less satisfactory than in tropical sprue. Certain patients with primary malabsorption have been found to vary in response to folic acid and vitamin B_{12} therapy.[8] Folic acid in doses 10 to 30 mg., daily may not cause a remission of the megaloblastic anemia in all cases. The parenteral administration of 100 μg. of vitamin B_{12} should be given if folic acid does not provide a prompt hematologic and clinical response. Although useful in a control dosage of 10 to 30 mg. daily, folic acid must be supplemented with parenteral vitamin B_{12}, if central nervous lesion are suspected or there is any doubt about the etiology of the megaloblastic anemia. The daily injection of crude liver extract, 2 cc. intramuscularly, may provide a factor not present in refined products. Folic acid and vitamin B_{12} may fail to establish remission of the hematological picture.

Iron deficiency anemia may also be associated with the malabsorption. The oral use of iron-containing compounds may not be tolerated by the patient. Parenteral iron or the concomitant use of cortisone to improve absorption of iron in the gastrointestinal tract, has been recommended.[7] Patients respond more satisfactorily to whole blood transfusions which provide protein replacement, as well as parenteral iron supply. Although the deficient absorption of iron is not uncommon in sprue, lesions responsible for blood loss must be excluded.

TABLE I. GLUTEN-FREE DIET

A *normal diet* except that nothing made with wheat, rye, oat, barley or any grain other than approved substitutes can be used.

Substitutes
potato flour
rice flour
soya flour

Warning
Check all labels for the presence of wheat or rye flour.

Do not Use

bread	ovaltine
biscuits	paste on fish or meat
brown gravy	pastry mix
cakes	prepared cake
cream of wheat	prepared soups
doughnuts	puffed wheat
farina	rusks
grape-nuts	sausage
ice cream (commercial)	shredded wheat
macaroni	spaghetti
malted milk	rye krisp
noodles	

Check the patient's diet diary for errors in the use of gluten-containing grains.

This list is illustrative of the many foods containing gluten.

Dietary management, vitamin and drug supplements may fail to control primary malabsorption. Adrenal steroid therapy has been employed when sprue is resistant to management or there has been a relapse. Subjective improvement may be prompt with stimulation of the appetite, decrease in flatulence, increase in strength and sense of well-being. The decrease in number of stools and tendency to "form" has been confirmed by fat absorption studies. Although fecal fat excretion is reduced, it may remain abnormally high.[4] Colcher and Adlersberg[2] reported good results in the treatment of advanced stages of the disease with intravenous administration of corticotropin or hydrocortisone. The usual objective, however, is to use steroid therapy as a supplement to dietary management and replacement therapy of vitamins and minerals. The recommended initial dosage is 80-100 mg. of ACTH injected intramuscularly, or 100 mg. cortisone, 80 mg. of hydrocortisone or 60 mg. of prednisone in divided doses given orally. A maintenance dose of steroids is established for clinical control after satisfactory remission is established. Prednisone or prednisolone is given orally in doses up to 60 mg. daily. If the initial dose results in clinical improvement after two weeks of therapy, the daily dose is dropped gradually to a maintenance level. Cortisone in a daily dose of 25 mg. or 5 mg. of prednisone, is often adequate for control. Careful review of the patient's clinical status

TABLE II. THERAPY OF PRIMARY MALABSORPTION

Dietary Management
Gluten-free diet
High-protein, low-fat diet
Vitamin Supplements
Vitamins A, D, K, and B complex
Liver Extract, B_{12}
Folic Acid
Minerals and Electrolytes
Calcium, iron, potassium
Steroid Therapy

is necessary as a guide to maintenance dosage. Steroid therapy can be increased if a relapse threatens.

The effect of adrenal steroids on electrolyte balance emphasizes the need for such replacement in primary malabsorption. Potassium deficiency may be associated with the diarrhea of sprue and hypokalemia may be an important contributing factor in deaths. The intravenous administration of potassium chloride (20 to 40 mEq. daily) is indicated in the severe phase of the disease. Oral or parenteral potassium should be administered with any steroid therapy.

Deficiencies of calcium develop frequently with primary malabsorption. The oral administration of calcium salts three times daily is recommended for all patients. Hypocalcemia and tetany in the acute phase of the disease may require calcium salts parenterally. As previously indicated, vitamin D is a daily requirement with the calcium supplement. Although corticosteroids enhance osteoporosis, their use in severe cases of sprue with osteomalacia, has been recommended for the period of time necessary to effect a remission. In such cases, the simultaneous administration of calcium is necessary.

At the present time we prefer to treat each case of primary malabsorption with the gluten-free diet as an initial trial of therapy. In addition, the patient is given supplemental vitamins. During the past two-and-one-half years we have observed seventeen patients who have been placed on this dietary plan. All of these patients have responded in some degree to the exclusion of gluten from their diet. Three of them have gained over 20 pounds in weight. Improvement has been noted in their general sense of well-being and in the diminution of diarrhea. However, many of the patients have been on a combined therapy of steroids, folic acid, and vitamins. Under the combined therapy it is impossible to assess the critical value of the gluten-free diet. Eight patients who had been managed with standard high-protein, low-fat diet and supplemental drugs, showed an immediate improvement within weeks after the gluten-free diet was started. One patient gained 29 pounds in three months. It is interesting that two of these patients, who are now clinically asymptomatic, excrete 10.8 per cent and 18 per cent, respectively, of ingested fat.[9] This finding of an abnormal excretion of fat after remission on the gluten-free diet, is at variance with the reported normal fat absorption after gluten-free diet found by Schwartz and his associates.[11]

Four patients have responded promptly to the therapeutic trial of gluten-free diet without supplemental therapy. In none of these patients could a history be obtained of childhood nutritional problems or celiac disease. Two patients responded temporarily to the gluten-free diet, although primary malabsorption was later eliminated from the diagnosis. One of these patients died of a reticlum-cell sarcoma and the other patient was a postoperative gastroenterostomy case. Six months prior to death the first patient had had a jejunal biopsy reported histologically compatible with sprue.[6] The other patient has been a nutritional problem for many years but has not had diagnostic confirmation of primary malabsorption.

Although clinical and symptomatic improvement has been observed in this recent series of patients, the period of observation has been of too short duration to permit conclusions. Sprue has been a disease renowned for its chronic remitting course. Spontaneous remissions are not infrequent. The importance of the psychological effect of a new management regime must be evaluated. In fact, an important measure in the management of primary malabsorption is attention to the factors of nervous stress and fatigue. We have seen one patient who did not secure any symptomatic relief from the gluten-free diet during a period of time when she had problems in the family situation. Six months later, after resolution of the situational factors, and an opportunity for an extended vacation, she responded promptly when the gluten-free diet was again attempted. Many patients should be encouraged to take short periods of rest during the day and to avoid nervous or physical fatigue.

Therapy of primary malabsorption must be directed towards improving the patient's nutrition and correction of the deficiency states. No single drug nor dietary program can be given complete reliance. The gluten-free diet offers promise of a

valuable adjunct to the previous dietary management. The corticosteroids are an important adjunct in the control of patients who have not responded to therapy with vitamin and mineral supplements.

References

1. Anderson, C. M., Frazer, A. C., French, J. M., Gerrard, J. W., Sammons, H. G., and Smellie, J. M.: Coeliac disease: gastrointestinal studies and effect of dietary wheat flour. Lancet, 1:836, 1952.
2. Colcher, H., and Adlersberg, D.: Management of patients with malabsorption syndrome. *In* The Malabsorption Syndrome, Monograph. P. 213. New York: Grune and Stratton, 1957.
3. Dickie, W. K.: Celiakie, Thesis. Utrecht, 1950.
4. Drenick, E. J., Hvolboll, E., and Halsted, J. A.: Effect of ACTH and cortisone on fat absorption in steatorrhea of various causes. New England J. Med., 253:303, 1955.
5. French, J. M., and Hawkins, C. F.: The gluten-free diet in idiopathic steatorrhea. M. Clin. North America, 41:1585 (Nov.) 1957.
6. Haubrich, W. S.: Unpublished data.
7. Kelley, M. L., Logan, V. W., and Christ, L. M.: Correction of the anemia of malabsorption syndrome (nontropical sprue?) by oral administration of cortisone and iron. New England J. Med., 252:658, 1955.
8. Oxenhorn, S., Estren, S., Wasserman, L. R., and Adlersberg, D.: Malabsorption syndrome: intestinal absorption of vitamin B_{12}. Ann. Int. Med., 48:30, 1958.
9. Rinaldo, J. A.: Unpublished data.
10. Ruffin, J. M., Carter, D. D., Johnston, D. H., and Baylin, G. J.: "Wheat-free" diet in treatment of sprue. New England J. Med., 250:281, 1954.
11. Schwartz, M. K., Sleisenger, M. H., Pert, J. H., Roberts, K. E., Randall, H. T., and Almy, T. P.: The effect of a gluten-free diet on fat, nitrogen, and mineral metabolism in patients with sprue. Gastroenterology, 32:232, 1957.
12. Weijers, H. A., and Kamer, J. H. van de: Fat absorption in normal and abnormal infants and children with special reference to coeliac disease. Centr. Inst. v. Voedingsonderzoek, T.N.O. Utrecht, Pubn. 113, 1950.

Questions and Answers in Discussion

Dr. Sandweiss: Dr. French, insofar as laboratory procedures are concerned, you referred to fecal chemical fat, I^{131} activity and blood vitamin A values. May I state that fecal chemical fat determinations are difficult to obtain in a hospital. The same holds true for fecal I^{131} and blood radioactivity values. unless, of course, there is an isotope laboratory at the hospital. Even the vitamin A test is not a usual procedure in the average good hospital. I wonder what other laboratory procedures. if any, would you recommend for the doctors who practice in the average good hospital in the city and state?

Dr. French: I would say, Dr. Sandweiss, it is my impression that there are a number of hospitals in the state, not very large ones either, which are doing fecal fat analyses. They are not difficult! The main problem is that they are not particularly pleasant to do. However, there are a surprising number of hospitals where fecal fat analyses are being done. The vitamin A is not a particularly difficult one to do. . . .

Dr. Sandweiss: Pardon me, Dr. French, I am assuming that the hospitals have neither the facilities nor the help for these three tests. Are there any simpler tests that you can recommend?

Dr. French: Well, the glucose tolerance test is also a somewhat useful test. However, patients with the postgastrectomy syndrome (whether they have steatorrhea or not) and patients with the secondary sprues (including regional enteritis and Whipple's disease) often tend to have high curves. With these patients it is not very useful. In the case of primary sprue, however, you will find a flat curve in almost every patient. On the other hand, you are going to find that almost a quarter of the normal patients will also have flat curves if you take the cut-off point at 40 mg. per cent rise above fasting level, which is what you have to take in order to get all your sprue patients in. So we do not find the glucose tolerance test entirely satisfactory. I think if you do not have any of the essential tests I mentioned you might as well depend on the microscopic examination of the stool. Using heat and acetic acid and looking for fat and undigested meat fibers you will pick up about four-fifths of your sprue cases.

Dr. Sandweiss: Dr. Priest. How about the d-xylose and the serum carotene tests? I understand that these two tests can be instituted in the average hospital without much difficulty. In fact these tests can be performed in the average office on an ambulatory basis if a laboratory technician is available.

Dr. Priest: The d-xylose is a rather expensive pentose sugar. It is, however, an easy test to do because the patient takes 25 gm. of it in the morning on an empty stomach and sits around the office four to five hours, during which time urines are collected. It does not require intravenous withdrawal of blood. It is a simple colorimetric laboratory determination and is accurate if the patient does not have kidney disease. Dr. Rinaldo in his studies found it to be a very valuable test in the identification of primary malabsorption when the

excretion is below 2 gm. per five-hour urine collection. The serum carotene test seems to be a very easy test to do on an out-patient basis. Blood is drawn in the morning on an empty stomach. As a screening test it is my choice. In a typical non-tropical sprue patient it is very low. The normal range ends at 70 μg. per 100 cc. of serum. In sprue cases we have cases as low as 5 and 8 μg. of serum carotene per 100 cc. of serum. In patients with low serum carotene values, 50,000 units of carotene can be given by mouth and forty-eight hours later the serum carotene level can be determined again on an out-patient basis. A typical sprue patient will usually fail to elevate the blood carotene content to a normal value.

Dr. Sandweiss: Dr. Marshak. What is the significance of flocculation when it is the only finding in the x-ray study of the small bowel? Is there any significance to flocculation when there is no segmentation and no dilatation of the small bowel and no moulage sign? Might this be due to the flocculating type of barium we still use? If so, why do we still use the flocculating type of barium?

Dr. Marshak: Flocculation has been defined as the precipitation of barium into large amorphous flakes. When marked, it has the same significance as segmentation and clumping. Barium should be micropulverized with the addition of some suspension agent. When this type of barium is used, flocculation and segmentation is rarely seen normally. It is unusual to see flocculation without segmentation and some dilatation. It is possible that if old barium or barium of large particle size is employed that some flocculation can be seen normally.

Dr. Sandweiss: In his main talk, Dr. Bockus stated that the roentgen small bowel pattern which you described is very likely pathognomonic of non-tropical sprue. Is this true? What is the incidence of error in the roentgen diagnosis of the malabsorption pattern?

Dr. Marshak: The findings of dilatation, segmentation, increased secretions and fragmentation when they are moderate or fairly advanced are most frequently seen in non-tropical sprue, occasionally in Whipple's disease or lymphosarcoma. When the findings are minimal, they can be seen in a large variety of conditions some associated with malabsorption and some having no relationship with malabsorption as hookworm disease, emotional states, amyloidosis and others. If you employ rigid criteria for the interpretation of segmentation and dilatation, the findings appear to be highly suggestive of non-tropical sprue.

Dr. Sandweiss: You just stated that the malabsorption pattern may be seen in emotional states. If so, how frequently do you have to repeat these examinations to be fairly certain that the patient has or does not have primary malabsorption?

Dr. Marshak: Yes, mild changes of the malabsorption pattern can be seen in emotional upsets, but again the changes, if you want to grade them 1, 2, 3, or 4, will always be 1 or 1½. They will never be 2, 3, or 4. I always do every small bowel examination twice for corroboration.

Dr. Sandweiss: Can you differentiate primary malabsorption from pancreatic steatorrhea by x-ray?

Dr. Marshak: I think it is generally agreed today that in pancreatic steatorrhea the findings in the small intestine are essentially normal. Therefore, if you do have segmentation and dilatation you can assume, in most instances, that this is not pancreatic.

Dr. Sandweiss: I have one more question for you and I will let you rest for a while. When a patient with primary malabsorption improves clinically, gains weight, and feels fine, do you still find changes in the small bowel on x-ray study?

Dr. Marshak: Yes, we do. I did this study with Dr. Adlersberg. I am sure he can tell you much more about it than I can. Most of the patients that we re-examined still showed the typical changes of the sprue pattern. Only a few returned to normal. I have had no experience with the gluten-free diet. However, others tell me that there may be a remarkable change in the appearance of the roentgen pattern in sprue following the gluten-free diet.

Dr. Sandweiss: Thank you, Dr. Marshak. Dr. Adlersberg, you described morphologic changes in the mucosa of the small bowel obtained by small bowel biopsy with the Shiner tube. I would like to ask: When these morphological changes are found would you consider the findings definitely pathognomonic of primary malabsorption?

Dr. Adlersberg: I am sorry, Dr. Sandweiss, that I cannot give you a definitive answer. This is a new technique and has been in use in this country only for about two years and in London somewhat longer. If you have the pronounced changes of atrophy and complete derangement of the normal architecture of the mucosa, I almost would call it pathognomonic.

Dr. Sandweiss: May I ask you the reverse of this question? Suppose you have a patient who has the clinical features of primary malabsorption, but the small bowel biopsy shows a normal jejunal mucosa. Does this rule out primary malabsorption?

Dr. Adlersberg: No, definitely not! We have seen a number of patients with clinical features of

primary malabsorption and laboratory tests definitely suggestive of impaired intestinal absorption and yet small bowel biopsies showed normal jejunal mucosa. These are probably mild cases. However, I would like to stress that we still need additional studies to define exactly what is normal or abnormal in these mild cases. For instance, what is the length of normal villi? What is the normal thickness of the surface epithelium? These may show considerable variations among the so-called normal controls. What we can say today is: marked atrophy of the villi and the mucosa is highly suspicious of primary malabsorption. Whereas these morphologic changes are supportive evidence of primary malabsorption, negative findings do not rule it out.

Dr. Sandweiss: Since the small bowel in these patients shows atrophy of the mucosa and thinning of the small bowel wall, is there danger in doing a small bowel biopsy? Might not ulceration, hemorrhage and even perforation result?

Dr. Adlersberg: This is a very important question. I can only say that in our hands we did not see a single complication. After the biopsy we call on each patient daily for several days and examine the stools for occult blood. Prior to the biopsy we determine the bleeding time, clotting time, platelet count and prothrombin activity. Dr. Shiner of London biopsied over 200 patients to date. To my knowledge she has not seen any serious complications. Each patient must be evaluated individually.

Dr. Sandweiss: In other words, Dr. Adlersberg, your answer is that a small bowel biopsy is not a dangerous procedure!

Dr. Adlersberg: It is not dangerous because this technique produces only very superficial pieces of mucosa. I have no experience with other instruments.

Dr. Sandweiss: Dr. Adlersberg, I will ask you another question. In one of your publications you stated that about 90 per cent of the patients with primary malabsorption complain of diarrhea, weakness and periods of marked and rapid weight loss. Would you say that all patients who come into a doctor's office with intermittent diarrhea, a little weakness, a little weight loss be studied carefully to rule out primary malabsorption? Let us assume, in other words, that here is a patient who has intermittent diarrhea, a little weight loss, and weakness. The physical examination is not particularly revealing. There are no hemorrhagic areas, no cheilosis or glossitis, and no peripheral neuritis. The routine blood chemistries are within normal limits, including the blood calcium, albumin and the prothrombin time, et cetera. Yet the patient has a stool that is suggestive of primary malabsorption: it is gray, bulky and rancid in odor. Would you study all of these patients for primary malabsorption? In other words, what are your minimum criteria for a diagnosis of this disease particularly in the mild or latent phase, not the full-fledged primary malabsorption state?

Dr. Adlersberg: An excellent question but difficult to answer. I believe that in each case of chronic diarrhea of prolonged duration, where your findings are not too convincing in regard to ileitis, colitis and similar conditions, you would have to think of the possibility of primary malabsorption syndrome. The first step to do is to examine the stools for fat. It is important to know whether the patient has steatorrhea. Now, Dr. Bockus, I am sure, will tell you more about the old doctors' habit of looking at stools and smelling at them as well, which I consider a very good screening test. I don't know whether you can separate sprues from non-sprues on this basis and what the percentage of accuracy is. But I can say that if you see a stool that looks fatty and has a rancid odor, mixed with putrefaction, then you go ahead and do something about it. Perhaps you should then send your patient to an x-ray man for a gastrointestinal and small bowel series in order not to overlook organic gastrointestinal disease. A vitamin A tolerance test and a d-xylose test would also be very helpful, I am sure. A "sprue pattern" of the small bowel, flat vitamin A curve and low xylose excretion will confirm the diagnosis.

Dr. Marshak: To those of you who don't like to smell stools, order an x-ray.

Dr. Sandweiss: Dr. Bockus, any comments?

Dr. Bockus: I, too, thought that was a good question. Actually this is the picture you are describing—if the patient is over the age of fifty, I would study the patient first of all for pancreatic carcinoma. If I had a patient with steatorrhea and marked weight loss, I think that would be the first thing I would do. We are not just here to rule out idiopathic steatorrhea. We are here to make a diagnosis! In all of these patients, one must rule out circumscribed organic disease by routine orthodox methods. Now, to get back to the malabsorption question itself. I am a great believer in using the things that are available to all of us. The stool is available for inspection and it looks like a stool with steatorrhea. Then you put it under the microscope and you find that it contains an excessive amount of fat. That is very helpful. Then you smell it. If it is very rancid the chances are the patient has "malabsorption" rather than pancreatic disease, because often pancreatic stools do not have so much in the way of fatty acids and show less fermentation. But, what no one has mentioned is the touching of it because if you touch it it has a greasy feel. Now those of you who are too fussy and don't want to touch it

you may use a wooden applicator, if you like. Yes, these plain old fashioned things are very valuable, and when you get through with them I would agree with Dr. Marshak—go to the x-ray. The x-ray is the next most important thing for the total screening because one must also rule out organic disease. The absorption tests won't do that, but the x-ray usually will.

Dr. Sandweiss: Thank you, Dr. Bockus. Dr. Priest. Here is a question for you. Why do you think that the gluten-free diet works?

Dr. Priest: Is this a question for the entire panel?

Dr. Sandweiss: Well, for the moment, it is yours.

Dr. Priest: It certainly isn't definite why it works. One would be surprised that such widely-used grains as wheat and rye would contain a substance allergic to such a small percentage of the people of the world, that is, allergic to the gluten fraction of wheat and rye. It is postulated that this fraction may add something to the mucosa which Dr. Marshak demonstrated in his x-rays—the positive moulage sign in ironing out of the plica circulares. Perhaps it may also have something to do with poisoning of the substances in the intestinal tract permitting absorption. I think that I would very much like to hear the other members of the panel comment on the mechanism of the gluten-free diet. I would like to emphasize that the psychological effect of the new program must always be borne in mind. We have had one patient who failed on the gluten-free diet and after a period of rest and resolution of her situational factors, a reintroduction of the diet made a tremendous improvement.

Dr. French: I think one evidence against the allergic idea (which we regard as skeptically as Dr. Priest) is the fact that in an occasional patient with secondary sprue you will also get quite clear-cut response. Now in our own patients, every patient who we thought had primary malabsorption, that is to say nontropical sprue, has responded well to the gluten-free diet. If we give the patients enough time they go all the way back to normal. They do not need supplements because they maintain their levels of all the things in which they were originally deficient without any further supplementation. In the patients with secondary sprue there is no reason to postulate allergy. One was a patient who had simply a massive intestinal resection. The others were one patient with Whipple's Disease and one in which the cause of steatorrhea is unknown. This seems to rule out an allergic mechanism. It also seems to rule out the idea that this response is specific to sprue and celiac disease so that . . .

Dr. Sandweiss: May I break in here, Dr. French, and say that Dr. Priest stated that two of his cases with secondary malabsorption also responded to the gluten-free diet. And then, of course, you know that Finlay and Wightman reported that five of their seven patients with secondary malabsorption similarly responded to the gluten-free diet.

Dr. French: That is exactly the point I was trying to make. If I said anything else I misused my words, because our patients with secondary sprue responded to the gluten-free diet just as Dr. Finlay's and Dr. Priest's patients have done. Therefore, I think one has to postulate that this diet is not entirely specific to sprue. On the other hand, sprue patients responded distinctly more dramatically than did the patients with secondary sprue, at least in our experience.

Dr. Sandweiss: I see that you want to say something, Dr. Priest.

Dr. Priest: I wanted to ask if the members of the panel will comment on their trial of the gluten-free diet? Whether supplements should be given? If so, what type of supplements? In other words, patients who have failed to respond adequately in the past have had a tremendous drug bill each month and we have found several patients who have responded dramatically to gluten-free diet and were able to do away with $50 to $100 medicine a month. Should we start the gluten-free diet by itself with nothing else, or should we use it as a supplement at this time?

Dr. Sandweiss: Dr. Bockus, will you please answer Dr. Priest's question? Also, how do you treat your patients with primary malabsorption?

Dr. Bockus: I should like to say very briefly that I am very enthusiastic about the use of the gluten-free diet properly applied and I feel exactly like our friends in Birmingham do. I feel so strongly about it that when it doesn't work I feel there is something wrong with the patient, or with your directions to the patient. My results have been just as good as those reported by the Birmingham group, except that we have a smaller series of patients. I don't think we know how it works, although I shouldn't say there is any proof from the small experience that it is not necessarily due to a hypersensitivity, because I think one may have a hypersensitivity in secondary cases too. I would like to just mention that a paper just recently appeared, I think, in the *New England Journal of Medicine* by someone in New York, whose name I cannot remember, who tried the serotonin metabolite test. The excretion of this serotonin metabolite was greatly increased in their six cases of the malabsorption syndrome. The application of the gluten-free diet reduced the excre-

tion to normal in four of the six patients. This, I think, may have some importance from the standpoint of pointing out how this diet works. Dr. Sandweiss also, I think, wanted me to say that we had had very little success in the treatment of these patients before the era of the gluten-free diet. However, we had fair success in 50 per cent of our patients with the malabsorption syndrome utilizing psychotherapy, reducing the fat (and often sweets) in the diet, and the administering large doses of pancreatin. But any one of them might have a relapse at any time and then one must fall back on this terrible drug which Dr. Adlersberg is so fond of using, one of the steroids. At the present time, Dr. Adlersberg's business with the steroids is going to fall tremendously as a result of the gluten-free diet.

Dr. Sandweiss: May I ask you, then, Dr. Bockus: If prior to the gluten-free diet, and prior to the steroids, 50 per cent of the patients responded to reduction of fat in the diet, to large doses of pancreatin and to psychotherapy, why credit the gluten-free diet for the slight increase in the percentage of remissions following this special diet? What about the psychologic effect of this rigid diet, and the more frequent visits to doctor and dietitian; and what about the psychosomatic effect of searching food labels for "gluten," et cetera, et cetera?

Dr. Marshak: Dr. Bockus always forgets the names of the doctors in New York. The doctor's name is Sleisinger.

Dr. Bockus: Exactly right!

Dr. Sandweiss: Dr. Bockus, now that we have the names straight, how about the psychosomatic effect of the gluten-free diet?

Dr. Bockus: There isn't any question about the psychovisceral phase of every disease as I shall try to point out this afternoon. It is always important! Which comes first and which comes second in many instances nobody knows. However, if you ignore the psychovisceral phase, the psychological phase of the malabsorption syndrome, you are ignoring a very important factor. Many of these young people are highly sensitive and that has to be taken into consideration. In the days before gluten-free diet the thing in my opinion that flared them up more than anything else was an emotional upset, probably even more than a dietary indiscretion.

Dr. Sandweiss: Dr. Adlersberg—Steroids.

Dr. Adlersberg: Steroid use has fallen off considerably since the advance of the gluten-free diet. Now, gluten is considered, at least by our Dutch friends, to be an essential part of the disturbance in the malabsorption syndrome involving the pteroylglutamate complex. Actually nobody knows for sure what the enzymatic mechanisms are. We believe less and less that gluten in sprue presents a simple sensitivity or an allergic phenomenon. Now, I would like to tell you this, however: If you have a patient who is *acutely* ill with the primary malabsorption syndrome with the profuse type of diarrhea, in my opinion there is only one way of treating the patient *immediately,* and that is to give him steroids at least for the time being. Give him an intravenous drip infusion of ACTH or hydrocortisone and within a few hours you may see marked clinical improvement. Now, there is no doubt about that. We certainly are very fond of steroids! You can even use them in small doses as a maintenance therapeutic regimen. They produce very little harm if you use these drugs cautiously and observe your patients carefully. However, we have taken many patients off steroids, particularly those whose conditions improved, who gained weight and whose bowel movements were reduced to one to two per day and we maintain them with excellent results on gluten-free diets. Now-a-days if a patient is not extremely ill I like to start him on a gluten-free diet. The only thing that disturbs me is that those who have more experience with the gluten-free diet, especially our friends in Birmingham and Holland, say that you cannot decide whether your patients respond to this regimen unless you use the diet for three to six months. This is a very delicate question, because within three to six months the patient may develop a spontaneous remission on any form of therapy, especially if he has a mild form of the disease.

Dr. Bockus: I would like to comment briefly on this, David. I happen to know these Birmingham people very well and have talked with them many times. The patients who do not respond to a gluten-free diet in a relatively brief period (from two to six weeks) are exceedingly few, since they have learned the intricacies of the diet. The important thing to remember, however, as Dr. Priest so well demonstrated, is that a gluten-free diet is not an easy diet to prepare and follow. There are so many things that people pick up and eat that have wheat in them, of which they are unaware. And that, I think, is the principal problem, Dr. Adlersberg.

Dr. Sandweiss: Thank you, Dr. Bockus. And thank you, Dr. Adlersberg, Dr. Marshak, Dr. French and Dr. Priest. The members of the Michigan State Medical Society are deeply grateful for your participation in this program.

Summary of Panel

By David J. Sandweiss, M.D.

Detroit, Michigan

SOME of the salient points that have been made may be summarized as follows:

Primary malabsorption is a complex metabolic disorder of unknown etiology.[1] It may, however, be referred to as a disease chiefly characterized by atrophy of the small intestinal mucosa and impairment of intestinal absorption.

Primary malabsorption includes the diseases commonly referred to as celiac disease in childhood, nontropical sprue or idiopathic steatorrhea in the adult and tropical sprue, when it occurs in the tropics.

Primary malabsorption is no longer considered to be a disease with an impairment of absorption of fat only, but a disease with an impairment of absorption of all nutrients: protein, fat, carbohydrates, vitamins, minerals and even water.[5]

The impairment of absorption is not an "all or none" impairment. Rather, as stated by Dr. Adlersberg, there is a "selective dissociation of degrees of malabsorption of various substances and, perhaps differences in intensity of metabolic defects."[2]

Impaired absorption leads to deficiency states.

Clinical features of the deficiency states depend solely on the nutrients involved and the intensity of their malabsorption, as follows:

Calcium may be poorly absorbed both because vitamin D may not be absorbed and also because calcium combines with the excess fatty acids in the intestinal contents to form insoluble and unabsorbable calcium soaps. These may result in depletion of calcium stores followed by *osteomalacia, hypocalcemia,* and *tetany.*

There may be malabsorption of the fat-soluble vitamins. Failure to absorb vitamin K may lead to *hemorrhagic phenomena* as a result of *hypothrombinemia.* Vitamin A deficiency may lead to *skin changes* and *night blindness.*

Malabsorption of water-soluble vitamins may lead to *glossitis* and *cheilosis* because of nicotinic acid and riboflavin deficiency; to *megaloblastic anemia,* because of folic acid and of Vitamin B_{12} deficiency; to *peripheral neuritis,* because of thiamin deficiency.

If there is a significant malabsorption of iron the patient may develop, also, *iron deficiency anemia.*

Diarrhea may result in marked *fluid loss* and *electrolyte depletion.* The diarrhea is very likely due to irritability of the bowel from the excessive fatty acids and the increased calcium soaps in the intestine.

Malabsorption of protein, fat and carbohydrate leads to excessive *weight loss* and *general malnutrition.* As body protein stores are raided for the amino acids then required to provide essential calories through gluconeogenesis, there may result further *atrophy of the intestinal mucosa* and *atrophy of pancreatic cells,* with *reduction of enzymes.* These, naturally, further intensify malabsorption. It has been stated, also, that "Inadequacy of amino acids for normal synthesis of polypeptide hormones may produce secondary *hypopituitarism* with resultant *amenorrhea* in young females."[14] Protein depletion, if excessive, might also cause *hypoproteinemia* with *edema* as well as impairment of bone matrix formation, that is *osteoporosis.*

It can thus be seen that because of the many possible deficiency states that may result from impairment of intestinal absorption, the clinical features of primary malabsorption may be very bizarre, indeed. However, Dr. Adlersberg has pointed out that about 90 per cent of the patients with this disease complain of intermittent diarrhea, weakness and periods of marked and rapid weight loss. Therefore, given a patient who complains of weakness, and who has periods of rapid and marked weight loss, and who has intermittent diarrhea, with a stool that appears frothy or foamy and that has a rancid odor, think of or suspect primary malabsorption. Of course, as stressed by Dr. Bockus, one must rule out the diseases that cause secondary malabsorption, such as carcinoma of the pancreas, extensive regional ileitis, Whipple's Disease, lymphosarcoma of the small bowel, et cetera.

The laboratory tests that we employed in the past are still as helpful today as they were in the past. These are: the gross and microscopic exam-

ination of the feces demonstrating the large frothy stools which are highly rancid and which show an increase in fat and fatty acid crystals; the hemogram which may show a macrocytic or microcytic anemia and an hypoprothrombinemia; and the blood chemical studies which may demonstrate hypoproteinemia, hypoalbuminemia, hypocalcemia, hypocholesterolemia, hypolipemia, increased alkaline phosphatase, and flat glucose tolerance values. These laboratory procedures are still helpful. However, there are three simple laboratory absorption tests that can be instituted in practically every hospital, and, in fact, may be instituted even in your own offices, if you have a laboratory technician. These are the five-hour urine d-xylose test,[3] the serum carotene level[15] and the vitamin A tolerance test.[9] These are fair screening procedures for malabsorption.

For a definitive diagnosis, you may have to determine fecal chemical fat[13] or fecal I^{131} radioactivity following triolein or oleic acid-I^{131} feedings.[8] Indeed, you may even have to do a small bowel biopsy.[11] According to Dr. Adlersberg, marked atrophy of the small intestinal villi and mucosa, is highly suspicious of primary malabsorption. In fact, some authorities are of the opinion that these morphologic changes in the small bowel mucosa are pathognomonic for primary malabsorption.[12]

A roentgen study of the jejunum and ileum is a "must." As stated by Dr. Marshak, the roentgen findings of dilatation, segmentation, increased secretions and fragmentation are highly suggestive of this disease. However, you cannot just order an "Upper G.I." or a "Barium Enema." You must order a "Small Bowel X-ray Study."

The most important contributions that have been made in recent years, I believe, deal with the therapeutic regimens. As shown by Dr. Priest,[10] by Dr. French[6] and by French and Hawkins,[7] many of these patients respond to the gluten-free diet. A few additional ones respond only to folic acid orally or vitamin B_{12} parenterally. Still others respond to steroids.[4]

It can be said with confidence, that the outlook for the patient with primary malabsorption, if you diagnose it and treat it, is better today than ever before.

References

1. Adlersberg, D.: Symposium: The malabsorption syndrome. Introduction. J. Mt. Sinai Hosp. New York, 24:177, 1957.
2. Adlersberg, D., Wang, C. I., and Bossack, E. T.: Disturbances in protein and lipid metabolism in malabsorption syndome. J. Mt. Sinai Hosp. New York, 24:210, 1957.
3. Benson, J. A., Jr., Culver, P. J., Ragland, S., Jones, C. M., Drummery, G. D., and Bougas, E.: The d-xylose absorption test in malabsorption syndromes. New England J. Med., 256:335-339, 1957.
4. Colcher, H., and Adlersberg, D.: Management of patients with malabsorption syndrome. J. Mt. Sinai Hosp. New York, 24:380, 1957.
5. Comfort, M.: Nontropical sprue: Diagnosis and therapy. Gastroenterology, 34:476, 1958.
6. French, A. B.: Absorption tests in the diagnosis of intestinal malabsorption. J. Michigan M. Soc., 58: 776, 1959.
7. French, J. M., and Hawkins, C. F.: The gluten-free diet in idiopathic steatorrhea. M. Clin. North America, 41:1585-1596 (Nov.) 1957.
8. Grossman, M. I., and Jordan, P. H.: The radioiodinated triolein test for steatorrhea. Gastroenterology, 34:892, 1958.
9. Paterson, J. C. S., and Wiggins, H. S.: An estimation of plasma vitamin A and the vitamin A absorption test. J. Clin. Path., 7:56, 1954.
10. Priest, R. J.: Therapy of primary malabsorption. J. Michigan M. Soc., 58:783, 1959.
11. Shiner, M.: Small intestinal biopsies by the oral route. Histopathological changes in the malabsorption syndrome. J. Mt. Sinai Hosp. New York, 3:273, 1957.
12. Shiner, M.: Personal communication, September 19, 1958.
13. van de Kamer, J. H.; ten Bokkel Huinink, H.; and Weyers, H. A.: Rapid method for determination of fat in feces. J. Biol. Chem., 177:347-355, 1949.
14. Volwiler, W.: Gastrointestinal malabsorption syndromes. Am. J. Med., 23:250, 1957.
15. Wenger, J., Kirsner, J. B., and Palmer, W. L.: Blood carotene in steatorrhea and malabsorption syndrome. Am. J. Med., 22:373, 1957.

THE AMERICAN CONSUMER DOLLAR

People in the United States spend 14 cents out of every dollar on transport and communications, more than anyone else in the world.

The annual UN statistical yearbook gives this breakdown of the American consumer dollar in 1957:

Food, 24 cents; transport and communications, 14; rent and water, 13; household upkeep and furnishings, 11; clothing, 9; medical and dental, 7; tobacco and drinks, 5; fuel and light, 4; miscellaneous, 13.

Responsibility of Hospital Trustees in the Future

By Willard C. Rappleye, M.D.

New York, New York

THE responsibility of hospital trustees in the future is that of placing and maintaining the hospital as a community health agency closely linked to other professional and lay groups, organized labor, industry and local governments that are working in the same field of endeavor. In view of the many changes now going on in our whole social, economic, educational and professional structure the challenge to trustees is for a high order of wisdom in one of the most complicated aspects of modern society.

The world is in a new cycle of events and new alignments. Before our very eyes we have seen the break-up of the British Empire. The world-wide growth of nationalism is evidence of unrest and widespread dissatisfaction of peoples who often have not the means to solve their problems. Highly significant characteristics of the many changes is the rapidity of events made possible in part by present-day methods of communication. Even in this country there are pressures for change which reflect areas of discontent with the established order. The American public is disturbed by the slowness with which scientific and technologic advances are applied in our own rapidly moving society. It is important, however, that in the public interest we retain a proper perspective and devote ourselves to progressive ideas based on proven experience.

The interdependence of the many elements of our social structure is clear. It is the part of wisdom to view our community and national situations as a whole rather than merely a cluster of more or less individual parts, often acting separately, frequently neutralizing each other and sometimes creating undesirable tension. Another item to emphasize is that whatever is likely to happen a decade from now is taking shape at this moment. Hence the great merit, indeed the necessity, of analyzing and judging current trends as accurately as our talents will permit.

Change and evolution are inevitable. Individuals, institutions and organizations must learn to adapt themselves to new and different conditions without, however, surrendering basic principles and obligations. In spite of all the ferment about health matters and the impact of many factors beyond the control of the health agencies, of which one of the most important is the hospital, the elements of sound health services should be preserved.

Among some of the features of our complex community life which have an impact on the problems of medical care and hospitals may be mentioned the industrialization of the country; the high rate of urbanization; the migration of the population (during the last twelve months thirty-three million people moved to new locations, the largest shift in history, mostly through the development of suburbs and the movement from the farm to the city); new methods of transportation and communication; the aging of the population with, at the same time, a marked relative increase temporarily in the population under twenty years of age (which may reach 40 per cent by 1970); the ever-increasing complexity of scientific knowledge with necessary specialization since no individual can master all phases of modern medicine; the rising costs of medical and hospital care; the growth of prepayment hospital and medical insurance; the conduct of government largely by pressure groups; the growing emphasis on preventive medicine, mental disorders, chronic disabilities and rehabilitation; and the extension of universal education. In spite of these and other factors, the needs of the patient and of his family in matters of health, sickness and disability are still personal and individual and are likely to remain so.

The provision of adequate health service is one of America's essential industries and ranks in importance with food supply, employment, transportation, housing, education and social security,

---

Dr. Rappleye is President, Josiah Macy, Jr., Foundation, New York, New York.

Read before Greater Detroit Area Hospital Council, Inc., November 18, 1958, at First Annual Physician-Hospital Trustee-Community Leaders Conference.

with each of which it has direct relationship. It is one of the largest, involving over 2 million personnel and costing over $20 billion annually. The health professions have accepted, or have had thrust upon them, community responsibilities of the broadest character. This is in keeping with the public recognition of leadership in other fields such as government service, industry, labor, agriculture and education.

In considering the health needs for a population, one must think in terms of trained men and women rather than just facilities. It is known that health within certain limits is a purchasable commodity, but sight is often lost of the fact that the level of any program cannot rise above the competence of those who participate in and direct it. The physician occupies the key position in such a program. Any plan of organization, whether developed from within the professsion or imposed upon it from without, which lessens the responsibility of the trained physician or denies him the rewards of superior ability and character will, in the long run, be detrimental to the public welfare. With the rapid development of scientific knowledge the gap between what is known and what is applied to meet the needs of individual patients and their families is still wide. Overcoming that lag is a responsibility of every employer, union, professional group, institution and community. We do have the know-how and can create the facilities. The problems of proper organization should not be insurmountable, but resolution of these elements alone will not solve the situation. Existing facilities and resources must be multiplied and brought to bear upon the central problem itself under the guidance of competent and informed leaders, professional and lay.

It is well to recall certain well-known facts which explain some of our present dilemma. The average expectancy of life has increased in the last fifty years from forty-seven to sixty-nine years. One result of the lowered death rates in the last decade, alone, is that there are 1,245,000 more Americans alive today than otherwise would have been. This favorable development has been brought about largely through the control of the infectious diseases, especially those of childhood, and explains in considerable part the present age distribution of the population mentioned earlier. We are now confronted with the problems of aging, mental disorders, long term illnesses, heart disease, cancer and many other conditions which cannot be met by mass measures of control or treatment.

During World War II, 1,967,000 people died in the United States of diseases of the heart and circulation, which is eight times as many as were killed in action in the Armed Forces. Cancer killed over twice as many as lost their lives in the Armed Forces. One out of every four persons now alive will develop cancer at some time in his or her life.

It is estimated that there are 23 million partially or totally handicapped persons in this country. There are close to 14 million individuals afflicted with diseases of the heart and arteries, about 11 million with arthritis and rheumatism and approximately 14 million have some degree of mental disorder, as illustrations. Obviously the problems in many of these diseases require individual attention, personal education, early diagnosis, proper preventive therapy; in other words individualized rather than wholesale methods of care and treatment.

Current opinion is that the present life expectancy will not be materially lengthened in the near future because a further reduction in the present low death rates from acute diseases is not likely to have a marked effect in reducing the over-all rate. The incidence of death from chronic diseases is practically stationary now. Hence, our attention, facilities and resources must be concentrated on a new set of problems which are now clearly recognized and which are being attacked in a variety of ways. Perhaps this situation can be illustrated in another context by the recent endeavors to control disease in the tropics. It had long been thought that once malaria—probably the greatest killer in the world—was controlled, the health situation in large areas would be greatly improved. It has become better as malaria has been reduced but control of the infectious malaria has not been accompanied in the tropical areas with the improvement that had been predicted because of the recognition now of the protein deficiency disease known as kwashiorkor, which is of prime importance in great sections of the world. This illustrates so well the frequent experience of solving one problem merely to be confronted with another.

The American people are convinced of the value of adequate health services and are determined that in some way the benefits of modern science shall be made available to all. Medical security is coming in some form and it is up to

us to propose the ways and means by which sound progressive plans can be formulated. It would indeed be shortsighted and, in the long run, futile to ignore the broad social implications of the health services. At the moment particular attention is being placed on the purely economic factors involved. As mentioned earlier, real insurance must be identified with the competence of the professional services rendered. The ultimate hope of all of these efforts should be focused on prevention, the anticipation of possible disorders, and the proper treatment of the beginnings of disease. This is not onliy common sense but it is also good business in view of the loss of 400 to 500 million working days a year of what is to a considerable degree preventable disability and absenteeism. This factor in our national economy is self-evident.

The hospital and health services will have to be considerably expanded through the extension of prepayment and other methods of financial support in order to accomplish some of the results to which reference has been made. This will involve the extension of prepayment plans to cover mental disorders, retired employees and their families, chronic diseases, rehabilitation and out-patient services. They should be aimed at providing life coverage. It is vital that plans be developed under the American system of private enterprise to meet these responsibilities if we are to avoid some of the undesirable experiences seen in European countries. As you know, the National Health Service of Great Britain, as an example, which includes practically 100 per cent of the population, is administered by 148 Local Health Authorities; 138 Executive Councils, dealing largely with local general practitioners; fourteen Regional Hospital Boards (3,426 hospitals); thirty-six Boards of Governors of Teaching Hospitals (147 institutions); and Ancillary Services. It is an organic part of the whole socialistic insurance plan covering unemployment, cash sickness benefits, maternity services, retirement pensions, disability allowances, death grants and many other financial benefits for the entire population. In our system of free enterprise we should have the ingenuity and skill to meet the community health needs without national supervision.

Reference should be made to the role of medical and health research which has brought about the phenomenal advances in this country. The fact that the death rates in certain infections have declined dramatically in the decade 1944 to 1954 testifies to the value of research. In appendicitis, the drop was 76 per cent, in acute rheumatic fever it was 73 per cent, in pneumonia, 43 per cent, in maternal deaths, 77 per cent, and in tuberculosis, 73 per cent, as illustrations. The poliomyelitis vaccine reduced paralytic polio by 70 per cent to 90 per cent. The American public has been sold on the value of research. The expenditures in this country in 1958 for medical research alone are about 330 million dollars. An estimate in recent days puts the figure nearly 100 million dollars more than that. It is predicted that the total will reach 900 million dollars by 1970 with long-term and essentially permanent support from the federal government under procedures now well established. These developments are of significant importance to hospitals. Some have taken the position that teaching and research costs should come from universities or private donors, often without recognizing that the quality of patient care in any institution is in no small measure dependent upon the scientific work and the presence of investigators and research men on the staff.

Industry also has a prime stake in this over-all development on which it is not necessary to dwell. It is clear that the objectives of business enterprise have greatly broadened into appreciation of community responsibilities which mark the high level of corporate citizenship identified with American industry. These objectives have taken the form of closer co-operation with labor unions in various health and medical service plans, including the growth of numerous important fringe benefits in these areas. Industrial medicine itself has become a major specialty with its emphasis on prevention, prompt treatment, control of unnecessary hospital or other services, aiding production through maintaining high levels of health of the workers, reduction of absenteeism and dealing with emotional and related problems of workers.

There seems to be growing agreement that prepayment plans for hospital and doctor services are the most satisfactory methods to budget the costs of hospital and medical care, that the benefits should be in kind rather than in the form of cash indemnity, that comprehensive medical services (through group practice when desirable) should be provided and made available in the hospital, the doctor's office and the patient's home, that these should be of high quality, and that the serv-

ices should be available to the workers and their dependents even when temporarily unemployed or when retired. The economic implications of such proposals and the financial as well as administrative difficulties now encountered by a number of prepayment plans are familiar to most of you.

Recognition of the joint responsibility of the hospital with other groups is not new. It was stressed in a report on "Principles of Hospital Administration" issued in 1922 which stated that:

> . . . the hospital represents in general the common ground of most of the health activities and groups engaged and the type of organization which may readily be adapted to the functions of co-ordination, education and service. It occupies a strategic position in the whole field of health.
>
> With proper safeguards, the hospital should have its entire facilities and personnel available for service to the community and to the practicing professional groups of the neighborhood, whose interests and those of the community in health matters are in large measures identical.

This is another way of saying that the hospital is not exclusively a proprietary work shop for the doctor but an active force dealing with many aspects of the public's health. The modern hospital is concerned not alone with in-patient care but with the follow-up of patients into their homes, into nursing homes, the use of "homestead" plans, out-patient services, the follow-up of chronic diseases, and vocational, educational, physical and mental rehabilitation. The hospital of the future may well be designed primarily to provide community preventive health services for ambulant patients and well people, with in-patient beds an adjunct for the acutely ill and those requiring special diagnostic or treatment facilities and personnel. It is obvious that this concept of the modern hospital is characterized by flexibility and a focus on the functions to be performed rather than on institutional management. A program of this kind must visualize the relationship of different agencies in the whole community, including suburbs, the elimination of duplication where possible, better utilization of certain specialized facilities, possible regionalization of the area and the fuller use of beds and other resources. It is this approach that must characterize the program of the hospital as visualized by the Greater Detroit Area Hospital Council.

It is of the highest importance that the financial support of hospitals be stabilized and not be dependent upon temporary fluctuations due to changing economic conditions. It should also provide for annual increments of increase necessary to maintain their programs at the highest level of excellence and to keep the hospitals abreast of new discoveries, skills and required personnel.

The hospital today has essential services to the community above and beyond the care of patients, vital as that is. Its functions can be discharged in the future only by doing its part to insure a continuous supply of well-trained personnel. Nurses of various types, technicians of many kinds, dietitians, physical therapists, social workers, orderlies, record room clerks, interns and residents may be mentioned to illustrate the range of educational responsibilities which every hospital must assume in some degree as its contribution to our national and local health programs.

Usually we think of the university as having the obligation for the education of physicians. The fact is that it can meet only a portion of that duty. A part of the clinical education of undergraduate medical students frequently is provided in non-university hospitals. Two-thirds of the 12,626 approved internships and over one-half of the 31,665 residencies are in such hospitals. Although these appointments are primarily for training, the service features often are more prominent than the educational. Please note that there are about as many internships in the non-university institutions now as there are graduates from American medical schools each year. The non-university residencies are more than twice as many. Since the essential preparation of a physician today includes a period of hospital training it is evident that a substantial part of medical training today is in hospitals not under university control, a fact that is not generally realized. The number of men and women in the internship and residency phases of present-day over-all medical education and services in university and non-university hospitals is greater than the total enrollment of the eighty-five medical schools in the United States and five times the number of graduates each year from those schools. In other words, a large part of medical education in America is actually under hospital supervision and guidance which makes that institution a vital part of the whole educational system of medicine.

It is accepted that every physician in practice must remain a student throughout his professional

life if he is to keep abreast of new developments in medical care. For several reasons only a small part of this continuation education is provided by the universities of the country. The medical profession in Michigan is fortunate to have much more than the usual help from the University of Michigan with whose programs it has been my privilege to be acquainted for many years. Again, however, it is largely through educational plans conducted jointly by the hospital and the medical profession that this essential phase of community-wide health services of high quality can be maintained.

It is evident, therefore, that the complexity of hospital activities and the wide variety of personnel and skills needed in their operation and the fact that no single individual can master all phases of medicine and hospital care emphasize the necessity of the team concept. The hospital center represents a mobilization of professional talents, research and education in a combined assault on the health problems of any community.

The real hospital deficits are not alone in terms of money but in failures to provide all of the essential services which a group of institutions and organizations should be expected to supply to the whole community. The purely financial operation is not even a true fiscal presentation because it does not reflect the services left uncovered, but needed. It is important always to emphasize that the essential function of the hospital—in fact, the only reason for its existence or support—is that of providing the highest type of professional services required by the community and its patients.

In providing for hospital needs, trustees must accept responsibility for more than just a few more buildings, some better facilities and a little more money to balance the budget; that is not enough —although it frequently is a demanding responsibility. Yet such a philosophy will be disastrous to the new concept of the functions of the hospital as a social instrument.

We are in the most demanding era of our history. We must build for the future in hospital services and medical care as daringly and as energetically as we have built other aspects of our national economy such as industry, transportation, agriculture and housing. Our thinking and aims must be at the level of the dramatic, not the commonplace.

We are no longer living in a frontier world, nor even in an individualistic world, but one demanding co-operation and interdependency. It is, therefore, necessary that each of the major agencies in any community seek understanding of the functions and responsibilities of other organizations, institutions, professions and the current trends in the health program required for constructive planning. The hospital program should envision the health needs of the entire area and be comprehensive enough to include everyone who wishes and is qualified to participate.

The attitudes of the hospitals, of the medical profession and of the public are keys to an overall co-operative plan. What is important is not the detail of one program or another. It is that everyone becomes increasingly aware of the challenge to our knowledge and skills and to our humanity. The formidable tasks ahead present a major challenge. The various programs and activities need to be orchestrated first in the individual hospitals and secondly on a community-wide basis through the Hospital Council. In each of these areas, hospital trustees as policy-forming bodies must supply their share of imaginative leadership and determination.

COMMUNITY HEALTH STUDY

Continuance of The University of Michigan's community health study of Tecumseh, Michigan, has been assured by a five-year grant-in-aid from the National Institutes of Health, a division of the U. S. Public Health Service. The study is an intensive survey of the general health picture of a single community. It began in 1956 under a state appropriation for research in human resources. It involves some 8,500 persons in the Tecumseh area. Work thus far on the project has involved a census of the population by both households and kindreds and collection of data on diseases and disabilities.

Actual investigations are conducted by individual departments and research groups in the School of Public Health and the U-M Medical Center. The overall program is directed and coordinated by Robert J. M. Horton, M.D., professor of epidemiology.

Information already gained on the study has formed a basis for research on heart disease, influenza and cerebral palsy. Additional studies are being made of immunization against respiratory infections, the relation of blood groups and fertility, and the development of the infant and pre-school child.

The National Institutes of Health granted $86,250 for the coming year's research program. Future grants are expected to bring the five-year total to approximately $360,000.

Editorial

AN APPRECIATION

This number of The Journal is the Beaumont Number. We are happy to dedicate it to Dr. Beaumont and his memory. We owe our thanks to Otto Beck, M.D., and A. H. Whittaker, M.D., for rounding up the material and preparing it for publication, also for their advice and counsel. While doing this, we must remember that the April Cancer number received much advice and help from J. W. Hubly, M.D., and his committee. The March number, devoted to Washtenaw County, was a testimonial to the untiring and contagious work of Wallace Teed, M.D. We are also indebted to Oliver McGillicuddy, M.D., and to Hugh Brenneman who co-operated in producing the February number—The Doctor as a Citizen.

THE BEAUMONT MEMORIAL AND MACKINAC ISLAND

At the time of the dedication, in 1900, of the monument in Fort Mackinac on Mackinac Island to Dr. William Beaumont, by the members of the Michigan State Medical Society and the Upper Peninsula Medical Society, there was a close liaison between the Michigan Historical Commission and the Mackinac Island State Park Commission, which resulted in the erection of numerous markers and tablets commemorating gallant military figures, professional people and government officials.

After 1915, this rapport was lost and in 1950 when the Council and the Beaumont Committee of the Michigan State Medical Society wished to activate a program of historical restoration on Mackinac Island, it was impossible to secure the interest of the Commission. The Historical Commission also was impotent, finding it impossible even to erect historical markers on the island.

With the completion of the Beaumont Memorial and the gift of the Memorial to the State, the Park Commission continued difficult and for a while all control of the Beaumont historical program was lost to the physicians of the state.

Governor G. Mennen Williams became increasingly interested in the history of the Straits area and, to secure a program of accomplishment, changed the personnel of the Mackinac Island State Park Commission, appointing a physician member of the Board of Trustees of the Beaumont memorial to the Commission, provided inspired leadership by appointing W. Stewart Woodfill, chairman, and issued a directive to the Michigan Historical Commission to co-operate with the Park Commission and the State Medical Society.

Beginning in 1957, the three agencies have worked in harmony as a team, constantly consulting in the development of a plan of restoration and historical development.

The Legislature also co-operated through members interesting themselves in the program and by passing enabling legislation to permit the Park Commission to issue revenue bonds in the amount of $125,000 to restore Fort Mackinac and additional funds to restore Old Fort Michelimackinac at Mackinac City and Fort De Buade at St. Ignace.

During the summer of 1958, 118,000 visitors passed through the turnstiles of the Fort, which was undergoing rapid development, making it possible to retire the bonds quickly.

The Historical Commission loaned Dr. Eugene T. Peterson, historian, to the Park Commission to supervise the restoration of the Fort, and Dr. Peterson also acts as consultant to the Beaumont Foundation in further developing the Beaumont Memorial.

The success of the Medical Society in restoring the Beaumont Memorial resulted in the Michigan Branch of the American Institute of Architects and the Builders of the State, under the guidance of Adrian N. Langius in raising $65,000 to restore the Biddle House at the west end of Market Street. This restoration was completed in the summer of 1958.

Market Street is the historical area of the city on Mackinac Island, the Beaumont Memorial standing at the eastern end of the street in the shadow of the Fort.

Plans have been made to refurbish the Robert Stuart House, the Museum of early Mackinac. At the present time, this museum is administered by the city, but it is hoped it will be transferred to the State Park Commission to become part of the over-all historical development.

To the west of Stuart House the buildings of

Too Tired to Do Our Duty?

Several bills in our national Congress and State Legislature would aim to "help people" at only the *slight* cost of loss of a portion of their freedom—plus a tiny bit more taxation.

We're getting used to the latter but Freedom isn't easy to come by.

People who haven't it are willing to chance death to get it.

People who have it are usually ready to fight for it.

No one ever, ever talks against it.

But some *act* against it—usually in the name of a currently popular god. Whatever god it is, the approach is always basically the same. It's to everybody's "advantage" to bow down to it and to give up whatever liberties are in conflict with the popular idol.

It could be the god "Efficiency," although that god is a little worn now and it got a bad name for heartlessness. It could be the god "Conformity." The good of the little man demands conformity in thinking, just as the Chinese are now enjoying communal living.

The reason I bring this up at this time is because I think the time is ripe for the professonal man to tell the Truth and demand the Truth. As professional people, doctors of medicine must seek the Truth or they fail in their practice. As professional people, doctors of medicine must seek the Truth in the business, social and political world or they will fail in their duties as "citizens."

It's easier to bow to Efficiency, or Conformity. It's easier to be a slave. But we didn't get to be Free professional people by taking the easy way in our youth. And I don't think we're too tired yet to do our duty.

Delbert D. Dallenbach

President, Michigan State Medical Society

President's



Message

the American Fur Company (old warehouse) are in good repair. To the east the clerk's quarters, which collapsed in 1957, is to be replaced by a new U. S. Post Office as part of the National Government's participation in the development of the Island. The Post Office design and construction will be under the supervision of Warren Rindge, architect for the Beaumont Memorial with Professor Emil Lorch, and the Biddle House, which will insure proper design for the historical values involved.

The mid-section of Market Street is occupied by the Medical Center in conforming architecture, and as the area is now protected by a zoning ordinance, there is every reason to expect that the extensive historical restoration program sparked by the doctors of Michigan will culminate in one of the greatest centers of early American culture. Situated as it is in a most beautiful setting, the view from the Fort providing a breath-taking experience, the Land of Beaumont and the cradle of American Physiology will continue to provide an exciting experience for the hundreds of thousands who annually visit Mackinac Island.

ALFRED H. WHITTAKER, M.D.

VALUABLE RE-ENACTMENT OF MEDICAL HISTORY

History has a way of repeating itself, and current studies of the digestive processes, being carried on in Detroit, have a remarkable similarity to those begun 125 years ago on Mackinac Island by Dr. William Beaumont.

Beaumont earned lasting medical fame and established most of what is now known about the stomach as the result of a gun-shot accident in which Alexis St. Martin was the victim. Beaumont healed St. Martin's wound, but an opening was left in the stomach through which, for many years, Dr. Beaumont observed the digestive processes.

Now, Dr. Aline U. Orten, of Wayne State University College of Medicine, has found another subject in Albert Drolet, a Detroiter, who like St. Martin has an aperture in his abdomen through which digestion can be observed.

Drolet has offered himself as a human laboratory for study, and medical scientists are watching closely the results of Dr. Orten's findings.

The circumstances in the cases of St. Martin and Drolet offer a startling coincidence. Perhaps through the Orten-Drolet combination, medical knowledge may be increased as substantially as it was through the Beaumont-St. Martin experiments.

The above editorial appeared in *The Detroit Free Press* on Friday, April 19, 1957.

THE MSMS COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION

The ever-expanding field of medicine and the large amount of new information available in the prevention and treatment of disease have increased the need of the medical profession for the highest type of continuing medical education. The doctors in the state have responded to their responsibility to keep abreast of modern practice and have recognized that knowledge gained by the frequent and continued interchange of medical information at meetings in their own hospitals, county medical societies, state society programs and visits to medical centers enables them to render better medical care.

Our illustrious editor, Dr. Wilfrid Haughey, has collected many "firsts" in medicine in Michigan over the years. Among his collection is the statewide effort of the Michigan State Medical Society in the field of continuing education started in 1927. Without question, the over-all postgraduate activities in Michigan are not only a "first" but remain the best in the country.

The Committee on Postgraduate Medical Education of the Michigan State Medical Society is fully cognizant of the changing picture in the practice of medicine and the need for continued stimulation of study and the dissemination of knowledge within the confines of the community.

Because of the requests and desires of practicing physicians to deal with patients as a means of study, and since it has become well-established that greater knowledge is obtained in postgraduate medicine when patients are presented, the Committee on Postgraduate Medical Education desires to establish wet clinics in all of the centers where postgraduate activities are scheduled.

It is sincerely hoped that the local chairman will stimulate the doctors in his community to present their interesting patients at the time the postgraduate clinics are held in each and every center. The Committee on Postgraduate Medical Education urges that all doctors convey their desires as to programming in their respective communities to their local chairmen.

JOHN M. SHELDON, M.D.

IMMUNIZATION AND POLIOMYELITIS

Protection against poliomyelitis in its paralytic form has prompted many directives from our health authorities, the United States Surgeon General, State and County officers and the pediatri-

cians, urging protection of everybody up to forty years of age. Many authorities have extended that age without limit with the hope of actually wiping out poliomyelitis as a dangerous contagious disease. Reports last available have shown that nearly forty million persons in the under forty bracket remain unprotected.

The age group under five has been difficult to reach, even with the extensive propaganda used including announcements by Jonas Salk, M.D., and his co-workers. J. L. Wilson, M.D., of the pediatrics department of the University of Michigan, a couple of years ago, announced a study to determine the feasibility of combining the polio vaccine with the three-in-one vaccine being used for babies which now includes diphtheria, whooping cough and tetanus. This has now been successfully proven by numerous tests in Detroit and elsewhere.

On March 26, 1959, Surgeon General Leroy E. Burney announced the approval and licensing of the new four-in-one vaccine. Two pharmaceutical houses, Parke Davis and Co. and Merck, Sharp and Dohme, have been designated to do this work. It is expected the combined vaccine will be on the market by August, 1959.

This progressive action will care for the oncoming generation of our population. The medical profession still has the task of extending vaccination against polio to the millions yet unprotected. One suggestion made some time ago was for each doctor no matter what his specialty or type of practice to ask one question in his history taking program: "Have you been vaccinated against polio?"

THE KEOGH BILL

The Keogh Bill, renamed Keogh-Simpson in this session, was adopted by the National House of Representatives on March 16 by voice vote and already has been sent on to the Senate for approval. Last year, in the previous Congress, the Senate declined to take action claiming it came to them too late for adequate study. That excuse cannot be used this time. Information from various sources in Washington and from the *United States News and World Report,* is that Senator Byrd and his committee claim this bill would reduce the government's income from the self employed professional and business men by about $365 million. It is also projected that if the Senate should pass the measure, the President might also veto it if his budget is too far out of balance. Our members should know that this JOURNAL has been editorializing on this topic of equalizing the income tax assessment, since September 1948, when we first mentioned it. The Bill proposed at that time would set aside 15 per cent of earned income up to $10,000, whichever was the least, to be invested free of income tax, in irrevocable securities from which this taxpayer could draw pensions or annuities after he had retired. The Bill has been greatly modified. It now authorizes a 10 per cent reduction up to $2,500 and a limit of $50,000 in all during one lifetime.

The protest made by the Internal Revenue department and the Congress that this Bill would reduce the federal income is just plain begging the issue. Our friends and neighbors who are working on salaries and for industry are enjoying this tax-free provision for their retirement years and have been ever since the internal revenue act started functioning. Provision was made for corporations to set aside as part of their cost of doing business, certain sums to be invested and to produce retirement or pension incomes for their former employees. The amount of money being set aside each year for that purpose staggers the imagination. One company out of the literally thousands which are doing business can give an inkling of the present situation and it shows the reason that the self-employed people are demanding equal privileges. The United States Steel Corporation in 1958 set aside $143,992,032.00 to provide pensions and benefits for their 33,397 former employees which included an addition that year of 4,303. Part of this money in 1958 was the company's part of social security taxes—$34,669,605.00; also $26,-250,103.00 to industry, welfare and retirement funds and other employee benefit costs. These costs are all non-taxable. When employees begin drawing pensions they pay the tax as of the current date.

The Congress made provision for this exemption from income tax many years ago. The Congress owes equal consideration to the 11 or 12 million self-employed persons—doctors, lawyers, dentists, architects, ministers, engineers and others. They are now demanding it. The Keogh-Simpson Bill must pass the Senate and must be signed. The doctors and their self-employed friends in all the other professions should shower the Senators in Washington with letters and telegrams which would awaken them to the fact that a large segment of our population have been discriminated against and are tired of it.

THE FORAND BILL

This Bill was re-introduced after having received some changes at the hands of its author. Latest information from Washington, coming from numerous sources including labor, is that it is gaining strength and the pressure to pass it is very acute. A group of bureaucrats of the Roosevelt-Truman vintage are still in Washington and are going about the country making speeches to whomever will listen, including the Physician's Forum from New York City.

For the benefit of our younger members, the Physician's Forum is composed of a group of social-minded doctors and others in the New York City area who sent mail throughout the country advocating compulsory health insurance. Their mail went to "Boxholder," "Occupant" or "Resident." The Physician's Forum has been dormant for several years but seems to have been revived.

Many of our members have felt that for the past five or six years, the old threat of "socialized medicine" was dead. The Murray-Dingell Bill, in its new form, is still active. The Forand Bill would accomplish the same purpose for all persons who are receiving benefits through social security—which could mean everyone over sixty-five, and those under sixty-five who are classified as "handicapped" or "dependent," also old-age dependents.

The American Medical Association, with its governing bodies, has taken a firm stand opposing this Bill because of its obvious intent to take a few million more people away from the private practitioner.

Again the medical profession, through its specialized obligation to patients and their ills, is offering a remedy. Blue Shield has suggested an entirely new contract form to care for the senior citizens of inadequate income. The old-age care plan could obviate the need of the Forand invasion of social security.

WINDSOR MEDICAL SERVICE

News releases from the University of Michigan and from Windsor announce the publication by Harvard University Press of a 400-page book recording findings of the Windsor Medical Service. Requests for the book have not yet produced it, but the *Windsor Medical News* of March 1959 published by Windsor Medical Services, Incorporated, has some most interesting items. Here is a direct quotation:

"It was found that the plan encouraged the prompt seeking of medical care, that the much discussed abuse of home and office services under insurance is under control, and that the Windsor community regards the plan highly and is willing to pay the additional premium for the more complete protection offered by the plan.

"The plan itself is shown to be fiscally sound, administratively efficient, and at the same time adaptable to the problems of the participating physician, while personal interviews with 96 per cent of the Windsor physicians showed that generally they view the plan as a good thing for their patients and for the profession

"Plan faces $100,000 loss for 1958; reports most difficult financial year in history. While the exact economic picture for the twelve months will not be known until the final figures for November and December are in, there is nothing in the past records of these two months to indicate the present loss will be reduced."

Windsor Medical Service has just short of 200,000 members. If the experience noted were projected into Michigan Medical Service's coverage of 3,650,000, the loss would be approximately $1,900,000. This shows a proportionate loss greater than the Michigan record. The editorial in this same number of *Windsor Medical News* contains two very significant statements:

"It is not the amount that has directors of the plan worried, for it can be taken care of out of the reserve fund set up under the Ontario Department of Insurance. It is the trend."

"It may be that those who abuse this plan do not realize that they are often making things difficult for their physicians. Doctor bills are not always paid in full. They are assessed by the plan's medical department and if it is thought that certain patients received too much or unnecessary treatment, deductions are made from the submitted account.

For years, various interested persons have confronted the directors of Michigan Medical Service with demands that it be modified to more correctly correspond with Windsor Medical Service. The complete satisfaction in Windsor, both of doctors and the patients and the fact that the plan was always solvent and more efficiently administered—we should emulate the program.

We are still waiting to see the 400-page book which should have some very interesting information in the light of the quotations just made from their monthly news publication.

Please note two illuminating facts when comparing with Michigan's Blue Shield. The plan expects to recuperate its losses from Ontario Department of Insurance, also deductions are made from doctors' bills submitted.

THE AMA
BLUE SHIELD
SENIOR CITIZENS

In an address before the national Blue Shield Professional Relations Conference in Chicago on February 9, Dr. Louis M. Orr of Orlando, Florida, President-Elect of the American Medical Association, urged physicians to "recapture the pioneering spirit" by utilizing their Blue Shield Plans to solve the problem of providing prepaid medical care to our senior citizens.

"Medicine has done a fair job in the past" in meeting the health needs of our older citizens, Dr. Orr said. And it is now "preparing to set in motion a positive program for older citizens that will take into consideration . . . not only the health and physician needs, but their social, economic, occupational and psychological requirements." This, he pointed out, cannot be done by any huge federal spending program.

Dr. Orr called attention to the fact that proposed legislation of the Forand type would "completely alter the nature of the Social Security program," because for the first time, it would add personal services to a program that is now limited to cash benefits. "This new principle," he warned, "would open the door for evolution of a system of tax-paid health care for the entire nation. Indeed, it would establish the principle that provision of medical care for any segment of the population, or all of it, is a federal function."

Pointing out that more than 40 per cent of the people over sixty-five are already covered by voluntary health insurance, and commending Blue Shield, Blue Cross and the insurance companies for their achievements in this field, nevertheless Dr. Orr said:

"Let's not live on past accomplishments. Let's not have America's health team become a mutual admiration society in which each member periodically lauds the other fellow for his plans, his surveys, and his continuing studies of the aged problems. Our individual jobs are *to think* and *to create, to develop* programs and then to put our sound ideas into *action*.

"I am gratified that Blue Shield has been one of the first to pledge its all-out co-operation in working with the medical profession to do an effective job in providing medical care for the aged, especially the lower income groups."

PROGRESSIVE MYOPIA

At a recent ophthalmological meeting, the problem of contact lenses and their fitting was discussed. One of the audience asked, "Will contact lenses delay or correct progressive myopia?" The answer was "No." Considerable discussion and questions on progressive myopia followed to the professor of ophthalmology: "What do you do?" Answer: "I pray."

This recalled a meeting and a discussion in 1942 at the Discussion Conference of the Section on Ophthalmology at the Annual Meeting of the Michigan State Medical Society in Grand Rapids, with an attendance of about fifty. Parker Heath, M.D., then of Detroit, now of Harvard, presiding, asked the question, "What do any of you do for progressive myopia?" Meyer Wiener, M.D., of St. Louis, who was the guest essayist, Dr. Heath, and the writer responded. The writer was the first one to describe his experience which took place in the 1920's.

He had three patients, children of a father with a very high degree of myopia (—10.00 lenses). The corrections of these children had been changing—progressing in the strength of the minus correction. One of the girls developed a vernal catarrh with constantly red eyes, inflamed conjunctiva and stuffy nose. No treatment seemed to avail.

On the presumption that this child's condition could be an allergy, adrenalin drops (1/1000) were prescribed, and at the next check-up six or eight months later, there had been no increase in the myopic correction, whereas the other two children had. Immediately the other children were instructed to use the adrenalin drops and come back in six months for a recheck. None showed progress of the myopia. Since that time, the writer has been using that treatment when a myopic patient shows an increase of myopic correction following the last previous prescription. After this treatment, it is very seldom that any increase is shown —more than a variation of a quarter of a diopter. When we do find such a variation, questioning usually shows that the patient has neglected the drops—even discarding them, thinking they were a needless task which could be neglected.

At the meeting in 1942, Dr. Meyer Wiener said that about five years previously, he had discovered that patients using adrenalin (1/1000) in their eyes regularly very seldom showed an increase in myopia. Dr. Parker Heath reported the same

experience. Both of them had stumbled on it while treating for other conditions. The writer has pondered what the physiology is and what happens. He believes the instillation of adrenalin helps to promote drainage from the inside of the globe and possibly in that way lessens the extension in length of the eyeball, which is the philosophy of progressive myopia. Would the use of pilocarpin give the same response? An interesting question, but the author does not believe in experimenting when the treatment he is now using is still giving such remarkable success.

WILFRID HAUGHEY, M.D.

HIGHWAY DEPARTMENT IS ON THE WARPATHS

Indians blazed the trails for Michigan's new trunkline construction program centuries ago, according to Wayne State University archivist Philip P. Mason.

"With few exceptions, our modern highways follow old Indian paths," said Dr. Mason. "Indians were the trailblazers for the State's expressway network."

He states that Indian trails were only 12 to 18 inches wide when the Indians used them. This provided sufficient room for single-file travel. They were gradually widened as the pack horse, the wagon and finally the automobile made it necessary.

The five-year trunkline construction program now under way will widen the old paths into 300-foot-wide expressways.

Originally the trails were used as links between waterways and, during the settlement period, as paths of attack against villages. Michigan's most famous footpath was the Great Sauk Trail. Now US 112, it links Detroit and Chicago.

Travelers on the main route between Detroit and Muskegon in frontier days called it Grand River as they do today. St. Joseph Trail has become US 12, running from Detroit to St. Joseph.

The Saginaw Trail is today's US 10, and an old Indian trail from Detroit to Port Huron is now known as US 25.

Other Indian trails have become the highways to Mackinaw City, Cheboygan and Traverse City.

Prior to joining Wayne State's staff in February, Dr. Mason was archivist for the Michigan Historical Commission. He recently wrote a series of articles on highway development for the Highway Department.

MICHIGAN STATE MEDICAL SOCIETY TREASURER'S REPORT—DECEMBER 1, 1957 TO NOVEMBER 30, 1958

Pursuant to my appointment as Treasurer, by The Council in January 1958, I am submitting my report of stewardship.

As indicated by Knostman and Smith in January, 1958, the transactions of the office of the Treasurer were verified for the year ending November 30, 1957.

Balance on hand December 1, 1957	$15,122.70
Deposits 12-1-57 to 11-30-58	8,419.10
Showing balance of	$23,541.80
Less withdrawals during year of 12-1-57 to 11-30-58 (authorized by Executive Committee 12-57)	$16,000.00
Cash balance at close of period 12-1-57 to 11-30-58	$ 7,541.80

Included in this report are the numbers of Certificates of deposits and U. S. Government bonds in possession of the treasurer, in Lock Box 121 of Michigan National Bank located in Grand Rapids.

1—$5,000 G Bond, dated March, 1948, their No. V799-030	$ 5,000
4—$1,000 K Bonds, dated August, 1954, their No. 262-323K, 262-324K, 262-325K, 262-326K	4,000
8—$1,000 2¾% Treasury Bonds 75-80, Nos. 17469K, 17470L, 17471A, 17472B, 17473C, 17474D, 17475E, 17476F	8,000
1—$30,000 Michigan National Bank Savings Deposit Receipt, No. 1753, dated August 27, 1958	30,000
3—$5,000 Michigan National Bank Savings Deposit Receipts, Nos. 1160, 1161, 1162, dated October 24, 1957	15,000
1—Michigan National Bank Certificate of Deposit No. 644, dated March 13, 1957	40,000
1—Michigan National Bank Savings Certificate, No. 1628 dated 5-29-58, replacing a government bond of $5,000 called in May, 1958	5,062.50
1—Michigan National Bank Safekeeping Receipt No. 4378, $25,000 United States of America 2½% Treasury Bonds dated February 15, 1954, due November 15, 1961, held by the First National Bank in Chicago	25,000
1—Michigan National Bank Safekeeping Receipt No. 4536, $35,000 United States of America 2½% Treasury Bonds, dated 2-15-54, due 11-15-61	35,000
1—Michigan National Bank Safekeeping Receipt No. A864, $25,000 United States of America 2½% Treasury Bonds, due June 15, 1962, held by the First National Bank in Chicago	25,000
1—Michigan National Bank Safekeeping Receipt No. A726, $10,000 United States of America 2½% Treasury Bonds, due March 15, 1970, held by the First National Bank in Chicago	10,000
Michigan National Bank Safekeeping Receipt No. A718, 5 Series K Savings Bonds, Nos. Y54-843K-846K inclusive, V49-459K, issued June 18, 1954, 12-year maturity	45,000
1—Savings Certificate No. 1737, Purchased 10-7-57, was turned over to Mr. Roney on 11-7-58 for ready cash purposes	25,000
1—Savings Certificate No. 1350, Purchased on 2-10-58, sent to Mr. Roney on 11-23-58 (these were of short duration to earn interest until needed for ready cash purposes)	40,000

Respectfully submitted:
WILLIAM A. HYLAND, M.D., *Treasurer*
Michigan State Medical Society

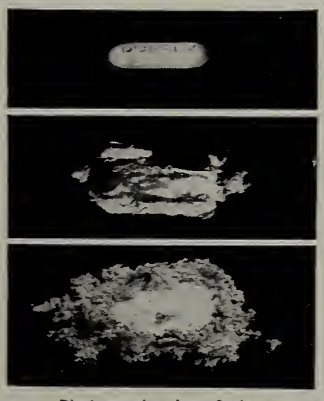
MAINTENANCE THERAPY WITHOUT STEROIDS IS FUNDAMENTAL

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid.

In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.



Photographs show 2-stage Tandem Release disintegration.

Each tablet contains:
Acetylsalicylic acid (5 gr.).....300 mg.
Para-aminobenzoic acid (5 gr.)....300 mg.
Ascorbic acid ..... 50 mg.
Dried aluminum hydroxide gel....100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. 257:278 (Aug.) 1957.

Buffered **Pabirin®** *Tablets*

SMITH-DORSEY · a division of The Wander Company · Lincoln, Nebraska · Peterborough, Canada

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

DIAGNOSTIC TESTS FOR VIRUS INFECTIONS

The division of Laboratories announces as of March 15, the availability of the following virus diagnostic tests in its Virology Unit in Lansing:

1. *Complement Fixation Tests* for influenza, poliomyelitis, mumps, lymphocytic choriomeningitis, Q fever, measles, respiratory illness caused by adenovirus and hemadsorption viruses, encephalitis (St. Louis, Western and Easter equine encephalomyelitis), and psittacosis.
   Required: History on Form 158; serum taken at onset of illness and twenty-one days later for all but poliomyelitis tests; for poliomyelitis, serum taken at onset and thirty days later.
2. *Virus Isolation—Influenza*
   Required: Throat washings in 20 ml of distilled water or skimmed milk; history on Form 158. *No other virus isolation procedures are available.*

Available by arrangement with the U. S. Public Health Service.—Complement fixation tests for rickettsiae and herpes infections—acute and convalescent specimens and clinical history required.

Viral diagnostic tests not available for infections with ECHO and coxsackie viruses.—History Forms F-158 are available on request from the Division of Laboratories, Michigan Department of Health, Lansing 4, Michigan.

Procedures for Referral to the Clinical Center of the National Institutes of Health

The Clinical Center of the National Institutes of Health at Bethesda, Maryland, is accepting a limited number of patients each month for study and therapy. Patients are admitted *only* on referral by a physician.

The National Institutes of Health is the research arm of the Public Health Service and is composed of seven Institutes concerned specifically with basic laboratory investigations and research in the fields of cancer, cardiovascular disease, mental health, neurological diseases and blindness, arthritis and metabolic diseases, allergy and infectious diseases, and dental health. The Clinical Center is a modern facility shared by all Institutes for combined laboratory and clinical study programs.

Procedure for Referral of Patients

To request admission of a patient, physicians should submit a brief summary of the medical history and current situation. This should be in writing, although preliminary inquiries may be and frequently are made by phone. There are no "application forms" to be filled out.

When the referring physician is certain of the Institute, individual investigator, or research group that is likely to be interested in his patient, he may communicate directly with the appropriate person or organization.

If he is not certain as to which Institute or research group might be interested, or if it is possible that more than one Institute might be interested, his communication should be addressed to the Office of the Director of the Clinical Center for circulation among the potentially interested Institutes.

Telephone calls should be directed to the Pre-admissions office, Ext. 746.

Eligibility Requirements

1. The patient's specific disease or other condition must be under active investigation by National Institutes of Health physicians at the time of admission.

2. The patient must be referred by his own physician or by a qualified physician in a hospital, clinic, or other medical organization.

3. Factors which have to be taken into consideration by the National Institutes of Health, and which may vary with different studies, are age, weight, sex, general health, and length of existing waiting list of qualified patients. Possibilities for long-term in-patient status or extended follow-up observations, or both, may be important criteria. There are no residential or citizenship requirements and no restrictions based on race, creed, or color.

4. The patient must have a reasonable understanding of his role in a research study and be willing to participate.

5. The selection of non-competent patients (for psychiatric studies) because of special procedures involved, is limited almost entirely at present to those individuals already a part of the patient population of a mental hospital authorized to receive committed patients.

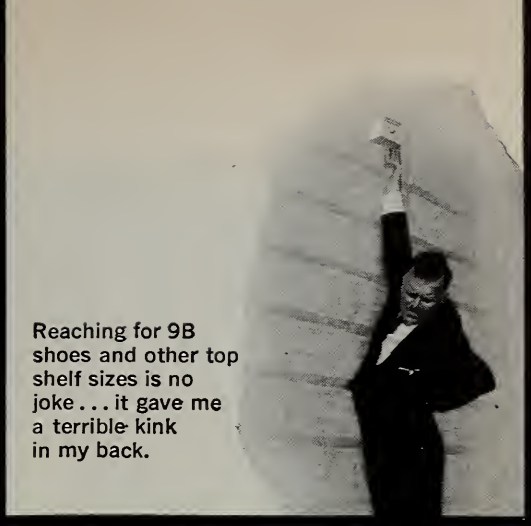
Length of Stay

It must be clearly understood by all concerned that admission to the Clinical Center is for research purposes only, and that the patient will be returned to the care of his referring physician or institution, or to his family when his participation in a study has been completed and his medical condition permits. Acting on behalf of the Director, National Institutes of Health, the Clinical Director of the Institute in which the patient is under study is responsible for making these determinations.

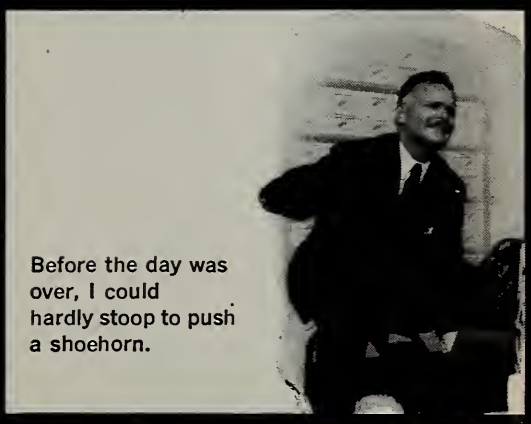
Clinical Studies

The principal study projects for which patients will be admitted during the current period, together with some of the more important diagnostic or other criteria are described in a brochure which is available to hospitals, clinics, medical schools and individual physicians on request.

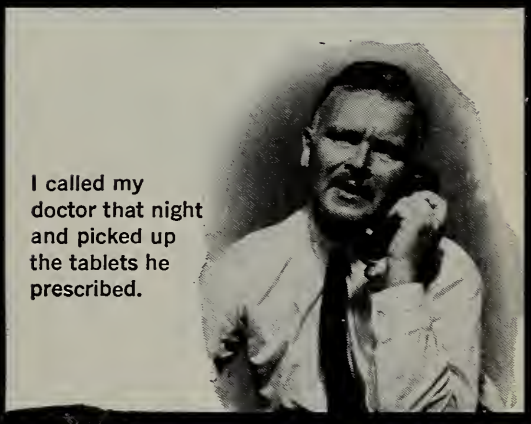
REACHING FOR THOSE 9B's NEARLY PUT ME ON THE SHELF...



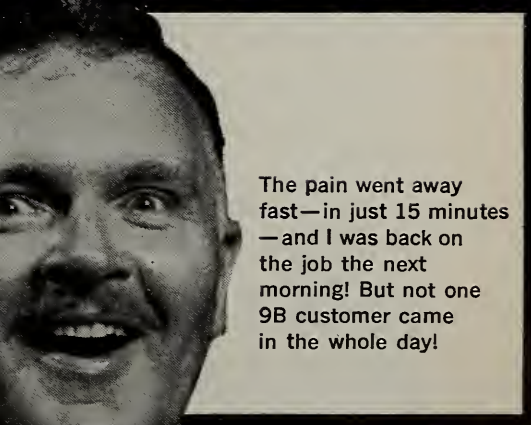
Reaching for 9B shoes and other top shelf sizes is no joke . . . it gave me a terrible kink in my back.



Before the day was over, I could hardly stoop to push a shoehorn.



I called my doctor that night and picked up the tablets he prescribed.



The pain went away fast—in just 15 minutes—and I was back on the job the next morning! But not one 9B customer came in the whole day!

Percodan®-Demi & Percodan® *Tablets*

Salts of Dihydrohydroxycodeinone and Homatropine, plus APC

FOR PAIN

ACTS FASTER — usually within 5-15 minutes. **LASTS LONGER** — usually 6 hours or more. **MORE THOROUGH RELIEF** — permits uninterrupted sleep through the night. **RARELY CONSTIPATES** — excellent for chronic or bedridden patients. **VERSATILE** — new "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law permits oral prescription.

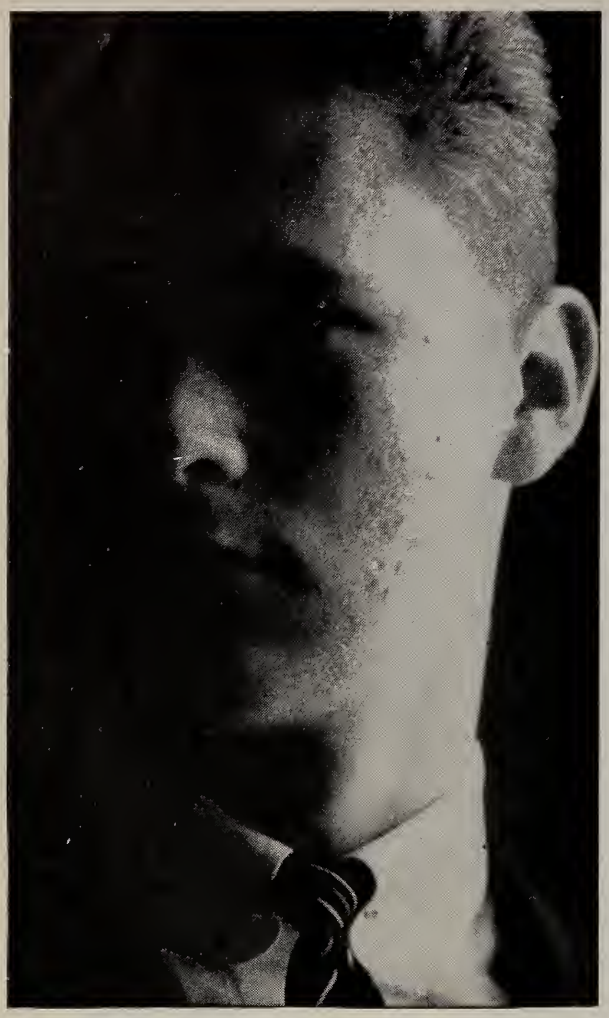
Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

AND THE PAIN WENT AWAY FAST

Endo®

Literature? Write
ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,628,185



in Acne

Routine cleansing with pHisoHex augments standard acne therapy. "No patient failed to improve."[1] pHisoHex helps check the infection factor in acne. Used exclusively and frequently, it will keep the skin surface virtually sterile. Contains 3 per cent hexachlorophene.

pHisoHex®

(antibacterial detergent, nonalkaline, nonirritating, hypoallergenic)

tips the balance for superior results

1. Hodges, F.T.: GP 14:86, Nov., 1956.

Winthrop LABORATORIES New York 18, N. Y.

In Memoriam

HARRY R. EGGLESTON, M.D., fifty-eight, Grand Rapids physician, died March 3, 1959.

A native of Rockford, he attended school there and was graduated from the Detroit College of Medicine.

Doctor Eggleston was on the staff of St. Mary's hospital and a member of St. Alphonsus Church and the Holy Name Society.

RALPH B. FAST, M.D., sixty-one, Kalamazoo eye, ear, nose and throat specialist, died March 24, 1959.

A 1922 graduate of the University of Michigan Medical School, Doctor Fast had practiced in Kalamazoo since 1926 and was on the staffs of Borgess and Bronson Hospitals.

He was a past president of the Kalamazoo Academy of Medicine and a member of Phi Rho Sigma Fraternity.

CARL A. FETTIG, M.D., eighty-three, Detroit general practitioner, died March 3, 1959.

Doctor Fettig was born in Detroit, was a graduate of the 1899 class of the Detroit College of Medicine and had practiced in Wayne County for fifty-five years.

He was a member of the Oriental Lodge No. 240, F&AM, the Moslem Temple, the Detroit Boat Club and the Grosse Pointe Unitarian Church.



NORMAN A. FLEISCHMAN, M.D., fifty, Muskegon surgeon, died March 30, 1959.

Doctor Fleischman was a graduate of the 1930 class of the University of Michigan Medical School.

At the time of his death, he was President of the Muskegon County Medical Society and a physician for the State Boxing Commission.

He was a member of the American College of Surgeons and the International College of Surgeons.

GEREON FREDERICKSON, M.D., sixty-four, Iron Mountain physician, died February 22, 1959.

Born in Iron Mountain, Doctor Frederickson took his premedical education at Valparaiso, Indiana, before receiving his medical degree from Loyola University, Chicago.

During World War I, he served as a first lieutenant with the U. S. Army Medical Corps.

He began his practice at Iron Mountain in 1919, served twenty-two years on the board of education, was school physician and served as director of the Dickinson County health department.

A charter member of the Iron Mountain-Kingsford Kiwanis Club since 1925, Doctor Frederickson was its

(Continued on Page 812)

in HAY FEVER *Family Physicians use*

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

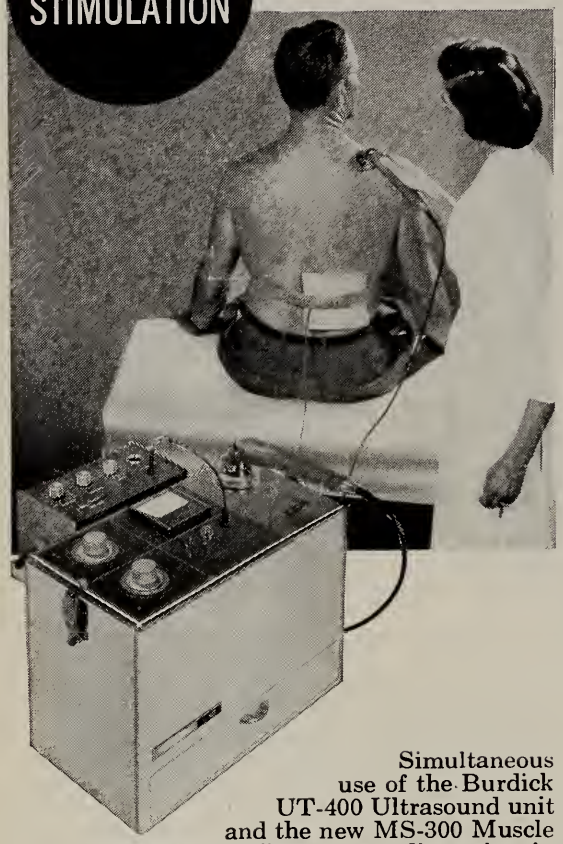
BARRY
since 1928

simultaneous application of

CONTINUOUS OR PULSED ULTRASOUND

and ELECTRICAL STIMULATION

BURDICK'S { UT-400 MS-300 COMBINATION



Simultaneous use of the Burdick UT-400 Ultrasound unit and the new MS-300 Muscle Stimulator offers a new dimension in ultrasonic therapy—combining the massage action of electrical stimulation with the established physiological effects of ultrasound.

For complete information call your Burdick representative or write us.

The MS-300 Stimulator has been approved by the F.C.C. for use in conjunction with the UT-400 Ultrasound unit.

Burdick THE BURDICK CORPORATION

MILTON, WISCONSIN

Branch Offices:
New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

THE G. A. INGRAM COMPANY

4444 Woodward Avenue, Detroit 1, Michigan

GEREON FREDERICKSON, M.D.

(Continued from Page 810)

president in 1936 and in 1950 was named lieutenant-governor for the Wisconsin-Upper Michigan District of Kiwanis.

He was also a member of the Elks Lodge, a 32nd degree Mason and Knight Templar.

EDWARD V. HOWLETT, M.D., eighty-three, Pontiac surgeon, died March 12, 1959.

Born in Gregory, Doctor Howlett was a graduate of the University of Michigan Medical School in 1902.

Prior to moving to Pontiac in 1910, he practiced medicine in Trimountain in the Upper Peninsula.

He was a former chief of staff at Pontiac General Hospital and was a Fellow of the American College of Surgeons and the Academy of International Medicine.

Doctor Howlett was a member of the Rotary Club of Pontiac and the Orchard Lake and Pine Lake country clubs.

M. RUTH McGUIRE, M.D., sixty-five, Detroit obstetrician and gynecologist, died March 22, 1959.

Doctor McGuire was a native of Holstein and the wife of William J. Mattimore, an advertising executive.

She was a graduate of the University of Illinois, interned at Women's and Children's Hospital, Boston, and took residence training at Lying-In Hospital, Chicago.

Doctor McGuire had practiced in Detroit since 1930 and was on the staff of Women's Hospital and the Merrill-Palmer School.

LUNETTE I. POWERS, M.D., eighty-three, Muskegon physician, died March 24, 1959.

A graduate of Northwestern University, she had practiced medicine fifty-nine years, all but three in Muskegon.

The Michigan State Medical Society named her "Foremost Family Physician" in 1950.

Today it is known that a number of cancers are initiated by exposure to various environmental or exogenous agents, usually over an extended period of time. All such cancers definitely belong in the class of preventable diseases in the strict sense of the term.

. . .

The mental attitude of every individual toward cancer is an important factor in the control of the disease.

. . .

Reduction of the delay period between onset of cancer diagnosis and initiation of treatment is one of the major responsibilities of cancer control.

. . .

It is the patient's responsibility to watch for those signs of cancer which can be seen or felt and, if he notes them, to go immediately to a physician.

. . .

The key to the control of breast cancer lies in the hands of women themselves.

UNIQUE VITAMIN SUPPLEMENT

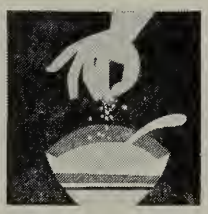
NEW VIGRAN CHEWABLES

SQUIBB MULTIPLE VITAMIN SOFT TABLETS

fruit-punch flavored tablets that will actually "melt in the mouth"



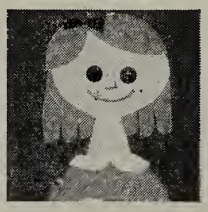
can be chewed like candy



can be crushed and sprinkled on cereal or other food



can be dissolved in water, juice or milk



can be sucked and will dissolve like a lozenge



can be easily swallowed (small tablet size)

VIGRAN CHEWABLES *taste like candy*, but contain *no ingredients harmful to teeth.* Important, too, is that VIGRAN CHEWABLES *dissolve easily* in the mouth and *smell good.* These advantages will also appeal to your elderly patients. And VIGRAN CHEWABLES provide at least 125% of the minimum daily requirements for vitamins A, D, B_1, B_2, niacinamide and C, and significant amounts of other essential vitamins.

Each VIGRAN CHEWABLE tablet contains:

Vitamin A	5,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Vitamin C	75 mg.
Vitamin B_1	3 mg.
Vitamin B_2	3 mg.
Vitamin B_6	2 mg.
Niacinamide	25 mg.
Calcium Pantothenate	3 mg.
Vitamin B_{12}	5 mcg.

Available in Rx-size bottles of 30 and 90.

SQUIBB

Squibb Quality—the Priceless Ingredient

'Vigran'® is a Squibb trademark



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Charles K. Sergeant, M.D., Joseph L. Ponka, M.D., and **Brock E. Brush, M.D.,** Detroit, are the authors of an article entitled "Effect of Antibacterial Agents on Clean Wounds," published in A.M.A. *Archives of Surgery,* March, 1959.

John M. Weller, M.D., Ann Arbor, is the author of an article entitled "The Importance of Dietary Sodium in the Etiology of Essential Hypertension," published in the *Illinois Medical Journal,* March, 1959.

Robert J. Bolt, M.D., Arthur B. French, M.D., and **H. Marvin Pollard, M.D.,** Ann Arbor, are the authors of an article entitled "Malabsorption Syndromes," published in *GP,* March, 1959.

Peter A. Martin, M.D., Detroit, is the author of an article entitled "A Psychotic Episode Following a Dream," read as "Symptom, Dream, Transference, and Psychosis" at the annual meeting of the American Psychoanalytic Association in Chicago, May, 1957, and published in *The Psychoanalytic Quarterly,* 27:563-567, 1958.

Carey P. McCord, M.D., Ann Arbor, is the author of an article entitled "The Zooanthroponoses as Occupational Diseases in the United States," presented before the Institute on Veterinary Public Health, University of Michigan, Ann Arbor, October, 1958, and published in *Industrial Medicine and Surgery,* April, 1959.

Donald T. Forman, M.D., Daisy McCann, M.D., R. B. Hahn, M.D., R. E. Mosher, M.D., A. J. Boyle, M.D., Detroit, are the authors of an article entitled "A Study of Arterial Phosphorus in Experimentally Induced Atherosclerosis," published in *Industrial Medicine and Surgery,* April, 1959.

Richard N. Moersch, M.D., and **F. Henry Ellis, Jr., M.D., F.A.C.S.,** Rochester, Minnesota, and **John R. McDonald, M.D.,** Detroit, Michigan, are the authors of an article entitled "Pathologic Changes Occurring in Severe Reflux Esophagitis," published in *Surgery, Gynecology and Obstetrics,* April, 1959.

Meyer O. Cantor, M.D., F.A.C.S., Detroit, is the author of an article entitled "Obstructing Eosinophilic Granuloma of the Stomach Associated with Arteriomesenteric Duodenal Compression," published in the *Journal of the International College of Surgeons,* March, 1959.

Edwin M. Knights, Jr., M.D., James S. Brush, M.D., and **John Schroeder,** Flint, are the authors of an article entitled "Simplified Screening Test for Cystic Fibrosis of the Pancreas," published in the *Journal of the American Medical Association,* March 21, 1959.

Ralph Cash, M.D., Reuben I. Shapiro, M.D., Stanley H. Levy, M.D., and Scovell M. Hopkins, M.D., Detroit, are the authors of an article entitled "Chelating Agents in the Therapy of Beryllium Poisoning," published in the *New England Journal of Medicine,* April 2, 1959.

Seward E. Miller, M.D., Ann Arbor, and **Harold Brandaleone, M.D.,** New York, are the authors of an article entitled "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle," read in the Session on Traffic Accidents before the Section on Miscellaneous Topics at the 107th annual meeting of the American Medical Association, San Francisco, June 25, 1958, and published in the *Journal of the American Medical Association,* April 4, 1959.

Alex S. Friedlaender, M.D., Sidney Friedlaender, M.D., and **Lawrence Weiner, M.D.,** all of Detroit, are authors of a paper "Gamma Globulin in Asthma Associated with Infection," presented by Dr. Sidney Friedlaender at the Third International Congress of Allergology in Paris.

Permission has been granted to the *American Association of Industrial Nurses Journal* to reprint the article by **Kermit T. Johnstone, M.D.,** of Saginaw, entitled "Injury Reduction by Identification of the Accident-prone Worker," which appeared in the January, 1959, issue of THE JOURNAL of the Michigan State Medical Society.

* * *

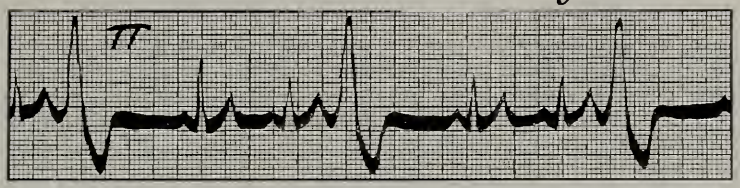
New Pharmacy Research Building. — The National Institute of Health approved a grant of $322,000 to

(Continued on Page 820)

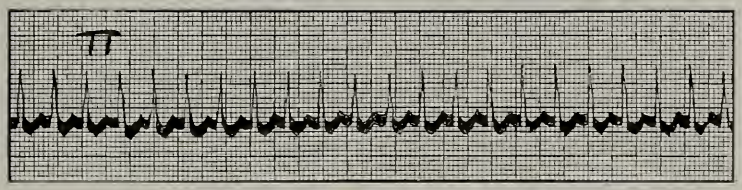
THE COVER

The beautiful Dean Cornwell painting of "Beaumont and St. Martin," is reproduced in four colors through the cooperation of Wyeth, Incorporated, of Philadelphia. Wyeth presented this portrait to the Michigan State Medical Society in 1952, for use in the Beaumont Memorial at Mackinac Island.

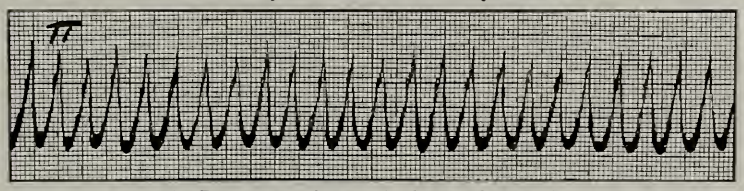
restore normal sinus rhythm



1. Premature ventricular contractions



2. Paroxysmal auricular tachycardia



3. Paroxysmal ventricular tachycardia

in arrhythmias

VISTARIL

hydroxyzine pamoate *

More than a tranquilizer

SPECIFIC ANTIARRHYTHMIC EFFECT

Vistaril is effective in ventricular extrasystoles and paroxysmal tachycardias (both auricular and ventricular).

plus

PSYCHOTHERAPEUTIC POTENCY

proven calming action indicated for arrhythmia patients.

and

THE OUTSTANDING SAFETY

of Vistaril as compared to other antiarrhythmic drugs in general use has been noted by investigators.

THE FOLLOWING DOSAGE REGIMEN IS RECOMMENDED

(individualized by the physician for maximum effectiveness):

PARENTERAL DOSAGE: 50-100 mg. (2-4 cc.) I.M. stat., and q. 4-6 h., p.r.n.; maintain with 25 mg. b.i.d. or t.i.d. In acute emergency, 50-75 mg. (2-3 cc.) I.V. stat.; maintain with 25-50 mg. (1-2 cc.) I.V. q. 4-6 h., p.r.n.

ORAL DOSAGE: Initially, 100 mg. daily in divided doses until arrhythmia disappears. For maintenance or prophylaxis, 50-75 mg. daily in divided doses.

SUPPLY: Vistaril Capsules, 25 mg., 50 mg. and 100 mg. Vistaril Parenteral Solution, 10 cc. vials and 2 cc. Steraject® Cartridges. Each cc. contains 25 mg. (as the hydrochloride).

Pfizer *Science for the world's well-being*

PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
Brooklyn 6, N. Y.

References: 1. Burrell, Z. I., et al.: Am. J. Cardiol., 1:624 (May) 1958. 2. Hutcheon, D. E., et al.: J. Pharmacol. & Exper. Therap., 118:451 (Dec.) 1956.

*Trademark

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company
311 State Street S.E. Phone GL 9-9413
Grand Rapids 3, Mich.

Medical Arts Pharmacy
20-24 Sheldon S.E. Phone GL 6-9661
Grand Rapids 2, Mich.

(Continued from Page 818)

The University of Michigan's College of Pharmacy for construction of a pharmacy research building on the Ann Arbor campus.

The grant is the largest given by the Institute to any pharmacy school, and will make possible the first building at any university devoted entirely to pharmaceutical research.

The University plans to erect a four-story structure, attached to a wing of the East Medical building, at the corner of Church Street and Washtenaw Ave. Construction is expected to start this summer and the building will be completed in about one year.

The greatest portion of space in the new building will be devoted to research laboratories accommodating two to four investigators, chiefly graduate students.

The nation, within the next five years will need about 600 new people with Ph.D. degrees in pharmacy for positions in teaching and industry. At the current pace, the whole country will graduate only about sixty Ph.D. pharmacists each year. A means has to be found to double this number, and this grant from the National Institute of Health is a long step in the right direction.

Officials estimate that the Pharmacy Research Building will cost about $800,000. Dean Rowe said the balance of some $478,000 will be sought from foundations, pharmaceutical manufacturers, alumni and friends.

* * *

The Windsor Plan Report—The complete report by three University of Michigan health specialists on the "Windsor Plan" of comprehensive medical care has just been published by Harvard University Press.

Titled "Comprehensive Medical Services Under Voluntary Health Insurance," the book analyzes the health plan instituted in Windsor, Ontario, Canada.

Authors are Benjamin J. Darsky, Nathan Sinai, Dr. P. H., and Solomon J. Axelrod, M.D., all of the University of Michigan Bureau of Public Health Economics.

* * *

Gifts and grants totaling more than $147,000 were approved by Wayne State University's Board of Governors at its recent February meeting.

The U. S. Public Health Service, National Institutes of Health, gave the largest amount, $36,836, for College of Medicine projects. A total of $32,500 was allocated to continue neurology training for another year while $1,971 will be added to the current grant expiring March 31. An additional $2,365 will be used for a cytodiagnostic screening survey in cervical cancer under the direction of Dr. Osborne A. Brines.

The Receiving Hospital Research Corporation gave $25,000 to defray salaries of individuals employed in departmental research at the College of Medicine.

A total of $29,755 was also given by the Michigan Chapter of the Arthritis and Rheumatism Foundation, to continue arthritis research under the direction of Dr. Alfred J. Bollet of the College of Medicine.

An American Cancer Society grant of $21,414 will be used to continue cancer research under the direction of Dr. James Lofstrom of the College of Medicine.

(Continued on Page 822)

Antivert® stops



VERTIGO

Each ANTIVERT *tablet contains:*

Meclizine (12.5 mg.)—most effective antihistaminic to control vestibular dysfunction.[1]

Nicotinic acid (50 mg.)—the drug of choice for prompt vasodilation.[2,3]

Advantage of "dual therapy" confirmed:

Menger found ANTIVERT "improved or controlled symptoms in virtually 90% of vertiginous patients."[2]

Indications: Meniere's syndrome, arteriosclerotic vertigo, labyrinthitis, and streptomycin toxicity. Also effective in recurrent headache, including migraine.

Dosage: one tablet before each meal.

Supplied: bottles of 100 blue-and-white scored tablets. Prescription only.

References: 1. Charles, C. M.: Geriatrics *2*:110 (March) 1956. 2. Menger, H. C.: Clin. Med. *4*:313 (March) 1957. 3. Shuster, B. H.: M. Clin. North America *40*:1787 (Nov.) 1956.

Rx PFIZER

Division, Chas. Pfizer & Co., Inc.
New York 17, N. Y.
Science for the world's well-being



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 820)

The U. S. Public Health Service, division of nursing resources, gave $8,236 to be added to the current grant for advanced training for professional nurses under direction of Dean Katharine Faville, College of Nursing.

Two grants, each for $5,000, were awarded to Dr. Norman LeBel, College of Liberal Arts, and to Dr. Charles Stevenson, College of Medicine. Dr. LeBel's grant came from the Research Corp. while the Wyeth Laboratories gave the grant to Dr. Stevenson.

Gifts to student aids included $4,000 from the Roy Fruehauf Foundation to continue the Fruehauf Foundation scholarship at the College of Medicine.

* * *

An International Congress of Phlebology will be held in France at Chambery (Savoy) on May 6-8, 1960.

Subjects of the survey are:

The venous stasis: criticism, analysis, definition (without including treatment)—Professors Comel, Curri, Jourdan, Malamani, Malanzanni; Professor Wertheimer and "Professeur Agrégé" Sautot, Dr. Faucon.

Pain in the venous affections of the lower limbs: clinical aspect diagnosis, pathogeny (without including treatment)—Professors Comel, Fontaine, Huriez, Piulachs, Dr. Forestier, Gross, Bret, Tournay.

The sclerosing method in its extravascular applications—Doctor Ducheix.

The official languages of the congress will be English, French, German, Italian and Spanish (simultaneous).

Those wishing to attend should send word and text of communication, if any, to either of the Secretaries: Dr. J. Marmasse, 3, rue de la République, Orleans, Loiret, and Dr. S. Bourgeois, 8, Boulevard du Théâtre, Chambery, Savoie.

* * *

In the short ceremony during the plenary session of the Congress on Medical Education and Licensure, held in Chicago in February (7 to 10), the National Fund for Medical Education joined with AMEF in the announcement of gifts to Dr. John McK. Mitchell, president of the Association of American Medical Colleges who represented the 85 schools. As reported in the February "Foundation," the check presented to Dr. Mitchell by AMEF president Dr. George F. Lull, was for $1,133,257. The National Fund, represented by Chase Mellen, Jr. Executive Vice President, announced that its total grants would be $3,000,185, which includes the contributions of industry and individuals plus matching funds from the Ford Foundation.

These two funds gifts amount to over $4,133,000.

Still incomplete figures received from medical school alumni offices indicate that almost $3,000,000 was contributed by doctors direct to their schools last year.

* * *

Michigan Blue Cross Payments — John N. Lorf, President of Michigan Hospital Service, made public some staggering figures on March 26, 1959, on the occasion of the Board Meeting held on the twentieth anniversary.

In the past twenty years, Michigan's Blue Cross has

(Continued on Page 824)

"It is concluded that the addition of buffering agents to acetylsalicylic acid in the concentrations used serves no clinically detectable useful purpose."[1]

[1]Sadove, Max S. and Schwartz, Lester: An Evaluation of Buffered Versus Nonbuffered Acetylsalicylic Acid, Postgraduate Medicine; 24:183, August, 1958.

Nonbuffered Material Used—Bayer® Aspirin.

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 822)

paid more than $750,000,000 (three quarters of a billion) in hospital care benefits. This represented more than 5,000,000 admissions, involving more than 39,000,000 days of care.

Payments to hospitals in 1958 hit a record $118,331,651, for 553,232 hospital admissions plus 286,000 outpatient cases. Operating expenses amounted to $5,151,654. Blue Cross earned $121,135,557 last year.

The two million dollar deficit came out of reserves built up in previous years.

The so-called average hospital bill covered by Blue Cross last year was about $225, but many (at least ten to fifteen a day) were for over $1,000 and at least one topped $10,000 for a single hospital admission!

In addition, Michigan's Blue Shield, during its nineteen years, has paid out in medical benefits over $300,000,000. The two organizations have provided much over a billion dollars worth of benefits to their subscribers.

* * *

Dr. Albert E. Heustis, state health commissioner, has issued a plea to Michigan residents to protect themselves against crippling by polio.

He pointed out there had been 550 cases of crippling polio and fifty deaths in 1958 in Michigan, compared with 121 crippling cases and only twelve deaths the previous year.

"Polio and particularly paralitic polio increased in 1958 because of public apathy toward immunization," said Dr. Heustis.

"Beginning with the field trials of the Salk vaccine in 1954, polio was on the run in Michigan. By 1957, immunization reached its highest level. But, with fewer cases of polio, interest in vaccination declined."

Dr. Heustis reported that 57 per cent of children from one to four years of age were unprotected by three polio shots. Twenty-five per cent between five and fourteen years of age are unprotected and 80 per cent of those from fifteen to forty years of age have not been properly immunized.

"Get vaccine into the arms of the unimmunized just as soon as possible," Dr. Heustis urged. "Paralytic polio usually begins to increase each year in June. It reaches a peak in the summer and lingers on into the fall.

"Every youngster and young adult should be vaccinated."—News release, March 31, 1959.

* * *

Two European sectional meetings and one South American sectional meeting have been announced by the International College of Surgeons.

The German speaking sections of the European Federation, ICS, will meet in Hamburg, Germany, June 1-3. A meeting of the French Section will be held in Lyons, France, June 19-21.

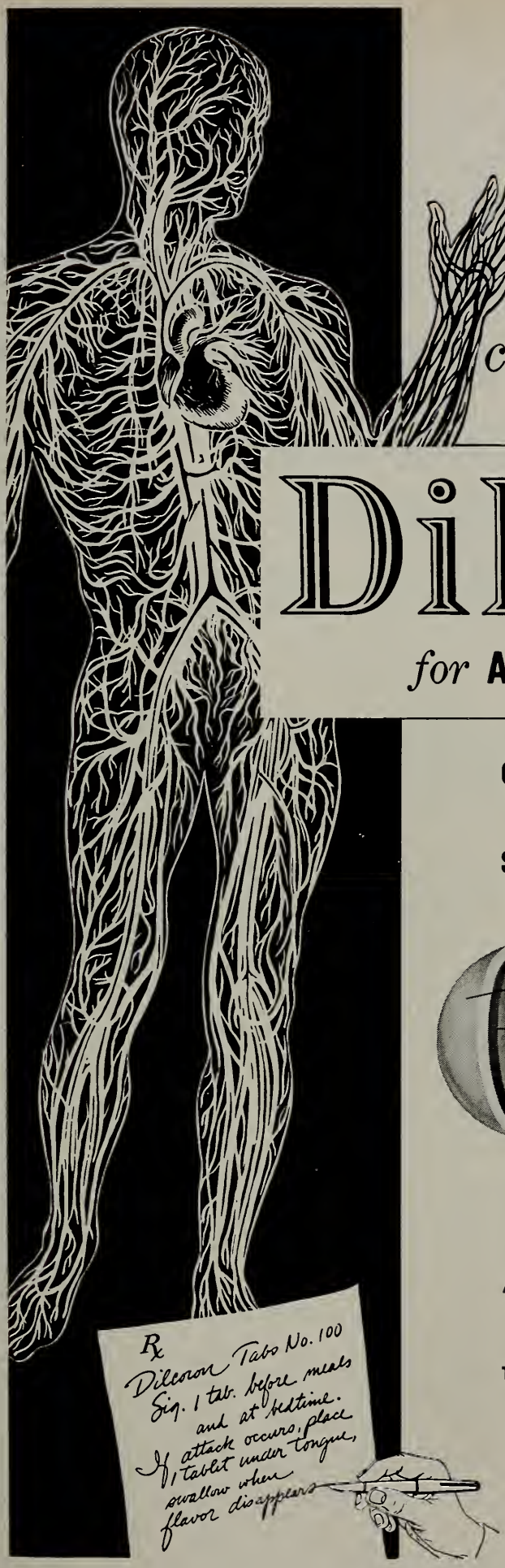
The Brazilian Section will meet in Santos, Brazil, in September, the date to be determined later.

For further information, write to the Secretariat, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois.

* * *

Hemophilia, the historic "bleeding disease" of kings,

(Continued on Page 826)



NEW

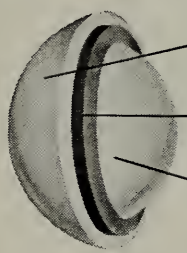
"flavor-timed" dual-action coronary vasodilator

Dilcoron®

for ANGINA PECTORIS

ORAL *(tablet swallowed whole)*
for dependable prophylaxis

SUBLINGUAL-ORAL
for immediate and sustained relief



Nitroglycerin
—0.4 mg. (1/150 grain)—acts quickly

Citrus "flavor-timer"
—signals patient when to swallow

Pentaerythritol tetranitrate
—15 mg. (1/4 grain)—prolongs action

For continuing prophylaxis patient swallows the entire Dilcoron tablet on an empty stomach.

Bottles of 100.

Average prophylactic dose:
1 tablet four times daily
(½ hour before meals and at bedtime).

Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

Winthrop LABORATORIES
NEW YORK 18, N Y



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY.
Pearl River, New York

(Continued from Page 824)

is cropping up in strange places, according to John B. Graham, M.D., visiting lecturer at The University of Michigan Medical Center, who reported results of a ten-year investigation of hemophiliac dogs, on March 24.

Dr. Graham, who is professor of pathology at the University of North Carolina, said the research is producing important new knowledge of the way disease is inherited, and is aiding diagnosis and treatment of the disorder in human beings.

Dr. Graham maintains a unique colony of hemophiliac dogs for his studies, and has attracted considerable professional attention for work in genetics and hemophilia. One of his animals sired over 100 hemophiliacs.

* * *

Human beings suffering from hemophilia usually have fewer children than average. But modern medical treatment is able to prolong the life of hemophiliacs so, in the long run, this will increase the occurrence of the disease.

The animals have a disease identical with one which human beings have. This identity is found in the reasons for bleeding, and in the mode of inheritance. The disease is inherited as a completely recessive, sex-linked characteristic.

* * *

Rural Health Conference.—Twelve physicians, surgeons and specialists from the University of Michigan played prominent roles in the Rural Health Conference held April 8-9 at the Kellogg Center in East Lansing.

General chairman of the conference is Harry A. Towsley, M.D., associate director of the Department of Postgraduate Medicine at the University of Michigan.

Robert G. Lovell, M.D., assistant dean of the Medical School, was chairman of the "Health Careers Program" on the opening day of the conference. University participants included Tom D. Rowe, dean of the College of Pharmacy, and Walter J. McNerney, director of the Bureau of Hospital Administration.

Edward A. Carr, M.D., and Prof. William C. Gibson spoke on rural health problems.

The following day was devoted to professional programs on highway safety and juvenile delinquency. Surgeons Herbert E. Sloan, Jr., Richard C. Schneider, Robert W. Bailey and C. Thomas Flotte of the University of Michigan Medical Center discussed "Emergency Aspects of Handling the Injured." H. Waldo Bird, M.D., and Stuart M. Finch, M.D., talked on mental health and psychiatry.

The conference was sponsored by the Michigan Foundation for Medical and Health Education, and co-sponsored by the Michigan Health Council.

* * *

Richard L. Malvin, Ph.D., instructor in physiology at the University of Michigan Medical Center, has been awarded the 1959 Lederle Medical Faculty Award. The award is accompanied by a grant of $10,500 to support his salary for a three-year period beginning July 1, 1959.

Benjamin W. Carey, M.D., medical director of Lederle, said the purpose of the award is to strengthen medical

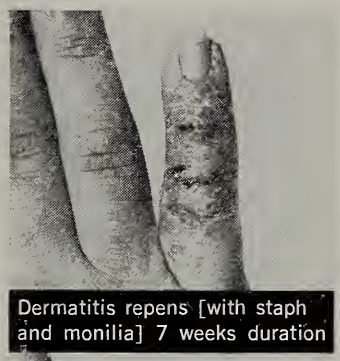
(Continued on Page 828)

new for total management of itching,[1.2] inflamed,[3.4] infected[5.6] skin lesions

Mycolog ointment

Kenalog, Spectrocin and Mycostatin in Plastibase

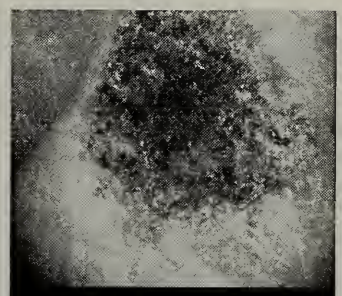
antipruritic/anti-inflammatory/antibacterial/antifungal



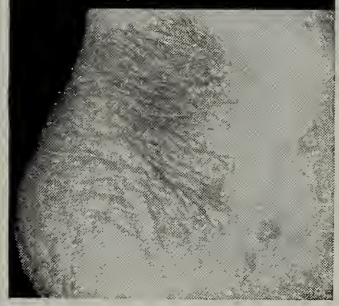
Dermatitis repens [with staph and monilia] 7 weeks duration



Cleared in 5 days



Infectious eczematoid dermatitis of ankle—5 years duration



Cleared in 20 days

Mycolog Ointment — containing the new superior topical corticoid Kenalog — reduces inflammation,[3,4] relieves itching,[1,2] and combats or prevents bacterial, monilial and mixed infections.[5-7] It is extremely well tolerated, and assures a rapid, decisive clinical response for most infected dermatoses.

> "Thirty-one of 38 patients . . . obtained excellent or good control of dermatological lesions . . . [Mycolog] was highly effective, particularly in the management of mixed infections. Several recalcitrant eruptions which had not responded to previous therapy were remarkably responsive to the daily application of this preparation over periods of 2 to 3 weeks."[5]

For total management of itching, inflamed, infected skin lesions, Mycolog contains triamcinolone acetonide, an outstanding new topical corticoid for prompt, effective relief of itching, burning and inflammation[1-4] — neomycin and gramicidin for powerful antibacterial action[7] — and nystatin for treating or preventing Candida (Monilia) albicans infections.[8,9]

Application: Apply 2 to 3 times daily. Supply: 5 Gm. and 15 Gm. tubes. Each gram supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base, 0.25 mg. gramicidin, and 100,000 units nystatin in PLASTIBASE.

References: 1. Shelmire, J.B., Jr.: Monographs on Therapy 3:164 (Nov.) 1958. • 2. Nix, T.E., Jr., and Derbes, V.J.: Monographs on Therapy 3:123 (Nov.) 1958. • 3. Robinson, R.C.V.: Bull. School of Med., U. Maryland 43:54 (July) 1958. • 4. Sternberg, T.H.: Newcomer, V.D., and Reisner, R.M.: Monographs on Therapy 3:115 (Nov.) 1958. • 5. Clark, R.F., and Hallett, J.J.: Monographs on Therapy, 3:153 (Nov.) 1958. • 6. Smith J.G., Jr.; Zawisza, R.J., and Blank, H.: Monographs on Therapy, 3:111 (Nov.) 1958. • 7. Monographs on Therapy, 3:137 (Nov.) 1958. • 8. Howell, C.M., Jr.: North Carolina M.J. 19:449 (Oct.) 1958. • 9. Bereston, E.S.: South. M.J. 50:547 (April) 1957.

And whatever the topical corticoid need, a suitable Squibb formulation is available—Kenalog-S Lotion—7½ cc. plastic squeeze bottles. Each cc. supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base and 0.25 mg. gramicidin. Kenalog Cream, 0.1%—5 Gm. and 15 Gm. tubes. Kenalog Lotion, 0.1%—15 cc. plastic squeeze bottles. Kenalog Ointment, 0.1%—5 Gm. and 15 Gm. tubes.

SQUIBB

Squibb Quality — the Priceless Ingredient

'SPECTROCIN'®, 'MYCOSTATIN'®, 'PLASTIBASE'®, 'MYCOLOG' AND 'KENALOG' ARE SQUIBB TRADEMARKS



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

(Continued from Page 826)

education by "providing recognition and incentive for outstanding young teachers and scholars."

According to Horace W. Davenport, Ph.D., chairman of the University of Michigan Department of Physiology, "Dr. Malvin was chosen for the award because of his outstanding teaching and research activities.

"His work with Dr. Walter Wilde is the most exciting study going on anywhere in the nation regarding the function and analysis of the kidney. The two have solved a long-standing problem: how to find out in what spot in the kidney a specific action was occurring without using the classical method of micropuncture."

Dr. Malvin is one of thirteen young medical school faculty members throughout the nation who will share $279,000 in grants under the Lederle program this year. He holds degrees in science from McGill University, New York University, and the University of Cincinnati. He joined the University of Michigan in 1956.

* * *

Max Karl Newman, M.D., Detroit, addressed the Institute of Advanced Law Study at the Wayne County Medical Society on March 30, 1959. His topic was "Neck and Back Injuries, Medical and Legal Aspects."

* * *

"Inorganic Factors in Nutrition" was the subject of discussion by four nationally known authorities, March 20, at the fifth annual Nutrition Conference. More than 150 scientists and dietitians attended the one-day Wayne State University College of Medicine conference in the David Whitney House auditorium.

Topics and speakers were:

"Trace Elements—Factors in Normal and Abnormal Nutrition," George K. Davis, Ph.D., professor of nutrition, University of Florida.

"The Medical Significance of Potassium Deficiency," William B. Schwartz, M.D., professor of medicine, Tufts University School of Medicine.

"Iron Metabolism and the Pathogenesis of Iron Deficiency Anemia," Carl V. Moore, M.D., professor of medicine, Washington University School of Medicine.

"The Calcium Requirement," D. Mark Hegsted, Ph.D., associate professor of nutrition, Harvard University School of Public Health.

* * *

Inhalation Therapy.—Four staff members of the University of Michigan Medical Center participated in the state's first Institute and Workshop in Inhalation Therapy held at the Post Tavern Hotel in Battle Creek April 2.

Don E. Gilbert, chief inhalation therapist at University Hospital and president of the American Association of Inhalation Therapists (AAIT), moderated the morning session of the meeting.

Discussions dealt with the organization and advantages of an inhalation therapy department in a hospital. It also covered costs, records, safety, maintenance and the selection of equipment.

Other participants from the Medical Center were Kenneth Mayne, assistant business manager; Mark Booth, assistant supervisor of inhalation therapy; and Kenneth Mathews, materials supervisor.

(Continued on Page 830)

For every topical indication, a Burroughs Wellcome 'SPORIN'...



Ointment: Tubes of ⅛ oz. and ½ oz. (with applicator tip) for ophthalmic or dermatologic application.

Otic Drops: Bottles of 5 cc. with sterile dropper.



Ointment: Tubes of ½ and 1 oz. and tubes of ⅛ oz. with ophthalmic tip.

Ophthalmic Solution: Bottles of 10 cc. with sterile dropper.

NEW { **Lotion:** Plastic squeeze bottles of 20 cc.
NEW { **Powder:** Shaker-top bottles of 10 Gm.



Ointment: Tubes of ½ oz., 1 oz. and ⅛ oz. (ophthalmic tip).

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

(Continued from Page 828)

The University of Michigan's Inhalation Therapy Department is one of the first of its kind in the country and has become a model for hospitals throughout the United States.

The Institute is co-sponsored by the Michigan Society of Inhalation Therapists and the Bay County Chapter of AAIT. About 200 attended.

* * *

Fluoridation.—Consolidation of all city and county public health services and immediate fluoridation of public water supplies are among the recommendations made to the city of Cincinnati in an extensive report prepared by Vlado A. Getting, M.D., of the University of Michigan School of Public Health.

Dr. Getting, who serves as consultant in public health for the Hamilton County (Ohio) Research Foundation, also recommended improved inspection services, coordinated health education programs and greater uniformity of health standards and regulations throughout the greater Cincinnati area.

Dr. Getting directed a similar study of public health services for metropolitan Cleveland last year. He is professor of public health practice at the University of Michigan.

* * *

The Pharmaceutical Manufacturers Association has named William B. Graham, president of Baxter Laboratories, Inc., as chairman of the Board of Directors, and Austin Smith, M.D., former editor for the American Medical Association, as its first full-time salaried president. Harry J. Loynd, president of Parke, Davis & Company, was designated as chairman-elect for 1960.

* * *

Military and medical preparedness for the management and care of mass casualties in case of war will feature the seventh annual National Civil Defense Conference which will be held in Atlantic City on Saturday, June 6, immediately prior to the opening of the annual American Medical Association convention.

"The one-day program will highlight medical problems involved in nuclear warfare," said Dr. Harold C. Lueth, Evanston, Illinois, chairman of the AMA Committee on Disaster Medical Care. "The program, unique since it will be presented entirely by the Army Medical Service, will dramatize the important fact that the medical and health professions can take positive action to minimize the impact of mass casualties if properly trained and organized."

* * *

Educational Council for Foreign Medical Graduates.—The number of foreign-trained physicians taking the qualifying examination of the Education Council for Foreign Medical Graduates is rapidly increasing. Only 298 took the first examination in March, 1958; 844 in September, 1958; 1,772 in February, 1959, and more than a thousand have already registered for the next examination September 22, 1959.

(Continued on Page 832)

The Medical Supply Corp.

ANNOUNCES

THE REMOVAL OF THEIR OFFICE AND SHOWROOMS

TO NEW AND LARGER QUARTERS AT

3632 Woodward Avenue

Detroit 1, Mich.

TEmple 1-4588 TEmple 1-4589

June 1, 1959

Against the "Vaginitis Spectrum"

TRICHOMONAS
MONILIA
BACTERIA

A welcome clinical advance...
effective medication
in an appealing form



Soft and pliant as a tampon, the Milibis vaginal suppository offers proved therapeutic action* in a vehicle giving unusual clinical advantages to both patients and physician.

COVERS CERVIX AND VAGINAL WALL—The pliant Milibis suppository disintegrates readily and molds itself to the cervix as well as the columns and rugae of the vaginal vault.

SHORT DOSAGE SCHEDULE—The short course of treatment with Milibis—only 10 suppositories in most cases—together with the clean, odorless, non-staining qualities eliminates psychic barriers which often interrupt longer treatments before complete cure.



SUPPLIED: BOXES OF 10 with applicator.

Now supplied with plastic applicator

- SANITARY
- INSURES CORRECT SUPPOSITORY PLACEMENT

MILIBIS® Vaginal Suppositories

Winthrop LABORATORIES
New York 18, N. Y.

*97 per cent effective in a study of 564 cases; 94 per cent effective in a series of 510 cases.

Milibis (brand of glycobiarsol), trademark reg. U.S. Pat. Off.

(Continued from Page 830)

In the first examination, 51 per cent of the 298 candidates won standard ECFMG certificates based on a score of 75 per cent or better.

There were no foreign centers for the first examination; thirty for the second, and forty-four for the third.

For the next examination, there will be fifteen centers in Latin America, fourteen in the Far East, seven in the Near and Middle East, thirteen in Europe, and one in Africa. In addition, examinations are held at various places in the United States.

In the second examination, 49.5 per cent of the 844 candidates won standard ECFMG certificates. Another 26.8 per cent won temporary two-year certificates based on scores of 70 to 74 per cent.

In the third examination, 43.4 per cent of the 1,772 candidates won standard ECFMG certificates. Another 25.5 per cent won temporary two-year certificates. In contrast among the 1,278 foreign trained physicians taking the English test in United States examining centers, none failed and only three did poorly.

Applications for the next qualifying examination September 22 must be in the ECFMG offices at 1710 Orrington Avenue, Evanston, Illinois, by June 22.

* * *

Milton A. Darling, M.D., Given Further Honors.—President-Elect of the Michigan State Medical Society, Dr. Darling, Detroit, recently was honored by having an annual lectureship named after him by Wayne State University College of Medicine. The exact name will be the "Milton A. Darling Lectureship in Obstetrics and Gynecology." Announcement of Doctor Darling's latest honor was made by Charles S. Stevenson, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, at Wayne at the first annual "Resident's Day" dinner in the Wayne County Medical Society Building on February 25.

Doctor Darling was specifically cited for his contribution to medical education through his development of the Resident's training program in obstetrics and gynecology at Grace Hospital.

Congratulations, President-Elect Darling!

* * *

George O. Clifford, M.D., Detroit, has been named a Markle Scholar by the directors of the Markle Foundation in New York City. Doctor Clifford, whose special research field is clinical hematology, is assistant professor at Wayne State University's College of Medicine and director of intern training for the school at Detroit Receiving.

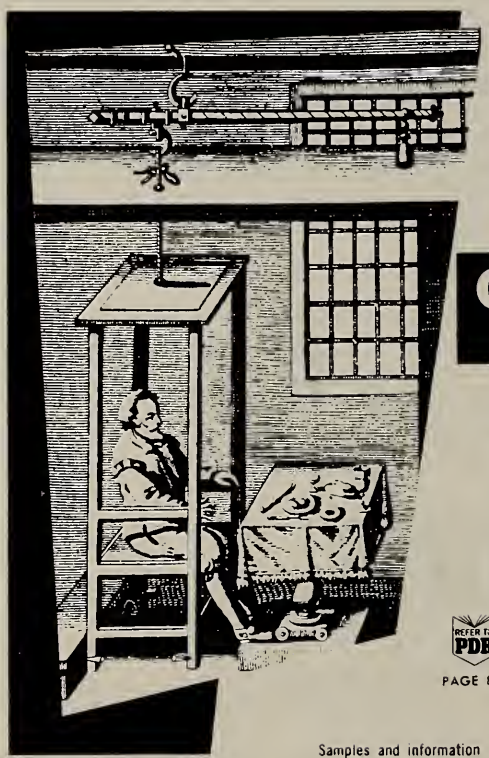
Congratulations, Doctor Clifford!

* * *

Ralph S. Green, M.D., clinical director of The Haven Sanitarium, Rochester, has been elected secretary-treasurer of the Central Neuro-Psychiatric Private Hospital Association. He also serves as the association program chairman for the 1960 annual meeting.

* * *

(Continued on Page 836)



Sanctorius on his steelyard chair in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG S. J. TUTAG & COMPANY DETROIT 34, MICHIGAN

Prompt relief of pain while controlling inflammation

in:
Neuritis, Neuralgia, Herpes Zoster, Bursitis, Rheumatoid Arthritis



Rheumatoid arthritis —generalized.

After treatment. Complete subsidence of arthritic and neuromuscular symptoms.

WILCORT promptly relieves pain, spasm and discomfort accompanying arthritis, neuritis and other skeletal neuromuscular disorders while exerting anti-inflammatory, antineuritic actions.

WILCORT combines the anti-inflammatory action of ACTH with the dependable anabolic effects of vitamin B_{12}. It, therefore, relieves the neuritic pain, regardless of the etiology, improves the appetite, the patient feels stronger, has more energy, and the muscle and arthritic pains become less severe.[1]

WILCORT

Each cc. contains: 40 U.S.P. units corticotropin, 1000 mcg. vitamin B_{12} in gelatin menstruum to prolong therapeutic activity.

Supplied: In 5 cc. multiple dose vials for intramuscular or subcutaneous injection.

1. Natenshon, A. L.: Wisconsin Med. J. 53: 223, 1954.

WILSON Laboratories

THE WILSON LABORATORIES. Pharmaceutical Division of Wilson & Co., Inc., 4221 S. Western Boulevard, Chicago 9, Illinois

(Continued from Page 832)



The tuberculin test and chest x-ray should be part of every complete physical examination. Tuberculin testing is increasing in Michigan because it not only aids in discovering active tuberculosis, but it also is an invaluable tool in finding tuberculosis infection not detectable with a chest x-ray.

"The combined use of tuberculin and roentgenography should be part of every complete physical examination, whether it is made in the hospital or in a doctor's office," in the opinion of Dr. Edward W. Custer of Healthwin Hospital in South Bend, Indiana. "The physician will have the satisfaction of knowing that his diagnosis is thorough and that he is practicing good preventive medicine, either of which reflects to the benefit of the patient."

* * *

C. D. Benson, M.D., Detroit, was guest speaker at the recent fifteenth anniversary meeting of the educational program for the advancement of the study and control of cancer, sponsored by the Calhoun County Medical Society and the Calhoun County Unit of the American Cancer Society. Stuart P. Barden, M.D., chairman of the cancer committee of the Medical Society, presided.

* * *

Donald S. Smith, M.D., Pontiac, is the new president of the Michigan Heart Association, succeeding F. D. Dodrill, M.D., of Detroit. B. I. Johnstone, M.D., Detroit, was selected as president-elect.

Among other leaders elected for the coming year are Muir Clapper, M.D., Detroit, John Littig, M.D., Kalamazoo, and Milton Shaw, M.D., Lansing, all vice-presidents, and Sidney E. Chapin, M.D., Dearborn, secretary.

* * *

The University of Michigan School of Public Health announces a new step toward advancing mental health teaching and research in the field of public health. Roger W. Howell, M.D., has joined the school as its first full-time psychiatrist. Formerly on the faculties at the Universities of Minnesota and North Carolina, Doctor Howell had been director of preventive psychiatry at the Lafayette Clinic in Detroit and associate professor of psychiatry at Wayne State University since December, 1956.

* * *

The Poison Control Service of the University of Michigan Medical Center reports a busy first year, with 345 emergency calls. In his annual report, George H. Lowry, M.D., physician in charge of the service, explains that 75 per cent of the calls during the year concerned children between the ages of one and three. Medicines were the greatest offenders, he reported. Most repeat violators were: aspirin, cleaning and polishing agents, cosmetics, sedatives, kerosene, ink, thermometer fluid, vermifuges and thyroid tablets.

(Continued on Page 838)

Cough Control

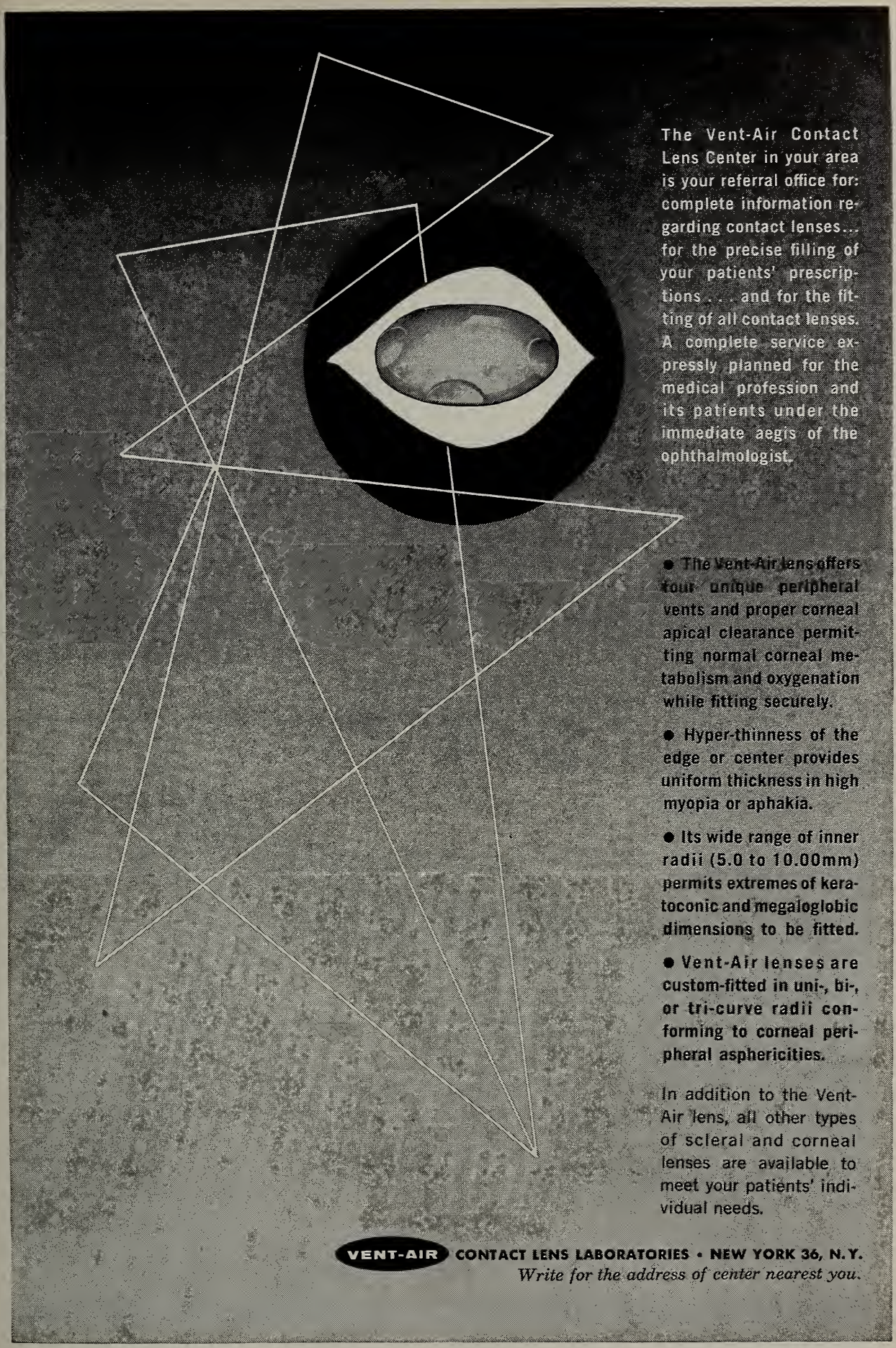
. . . combined with non-specific protein therapy

USE AQUEOUS GUAIAFAGE

rapidly effective in all upper-respiratory infection where ventilation by expectoration is necessary

available only in 30 cc vials

Meyer and Company, Inc. **Detroit, Michigan**


The Vent-Air Contact Lens Center in your area is your referral office for: complete information regarding contact lenses... for the precise filling of your patients' prescriptions . . . and for the fitting of all contact lenses. A complete service expressly planned for the medical profession and its patients under the immediate aegis of the ophthalmologist.
● The Vent-Air lens offers four unique peripheral vents and proper corneal apical clearance permitting normal corneal metabolism and oxygenation while fitting securely.
● Hyper-thinness of the edge or center provides uniform thickness in high myopia or aphakia.
● Its wide range of inner radii (5.0 to 10.00mm) permits extremes of keratoconic and megaloglobic dimensions to be fitted.
● Vent-Air lenses are custom-fitted in uni-, bi-, or tri-curve radii conforming to corneal peripheral asphericities.
In addition to the Vent-Air lens, all other types of scleral and corneal lenses are available to meet your patients' individual needs.
VENT-AIR CONTACT LENS LABORATORIES • NEW YORK 36, N.Y.
Write for the address of center nearest you.

(Continued from Page 836)

The telephone number of the Poison Control Service is Ann Arbor NO 3-1531, Ext. 589.

* * *

Arno W. Weiss, M.D., Saginaw, has been named to the Michigan State University development fund board of trustees. A former president of the Huron County Medical Society and now secretary-treasurer of the Saginaw Valley Academy of Ophthalmology and Otolaryngology, Doctor Weiss will help guide the program of the development fund.

* * *

Wm. H. Blodgett, M.D., Detroit, has been appointed to the National Foundation's Health Scholarship Committee for Michigan.

Congratulations, Dr. Blodgett.

* * *

The annual Keyport Trauma Day, sponsored by the Michigan Committee on Trauma, American College of Surgeons, and the Central Michigan Committee on Trauma, will be held at Hidden Valley Lodge, near Gaylord, June 25. Speakers will include Merle Trewin, M.D., and Kirk Cammack, M.D., both of Flint; Harold J. Meier, M.D., Coldwater; Nicholas S. Gimbel, M.D., and Joseph L. Posch, M.D., both of Detroit; Robert E. L. Berry, M.D., Ann Arbor; Herbert W. Harris, M.D., Lansing, Willis H. Huron, M.D., Iron Mountain, will preside for the addresses, while Frank H. Power, M.D., Traverse City, will preside for the advice clinic. Harold W. Woughter, M.D., Flint, is chairman of the Michigan Committee, and Sydney N. Lyttle, M.D., also of Flint, is the secretary-treasurer.

* * *

The thirty-eighth annual Beaumont Lecture of the Wayne County Medical Society offered a special feature this year.

The program, in honor of William Beaumont, M.D., started with a dinner at the David Whitney House, followed by a special dedication of the Beaumont and Historical Room, then the county society meeting with the Beaumont lecture. This room in the new home of the Society provides for adequate care and exhibition of the Beaumontiana and other historical materials which are growing in volume and value. It was back in 1942 when the Wayne County Medical Society first assigned a room —once the library of the David Whitney home at 4421 Woodward avenue—for development as a library and Beaumont museum.

Alfred H. Whittaker, M.D., is custodian of this special room.

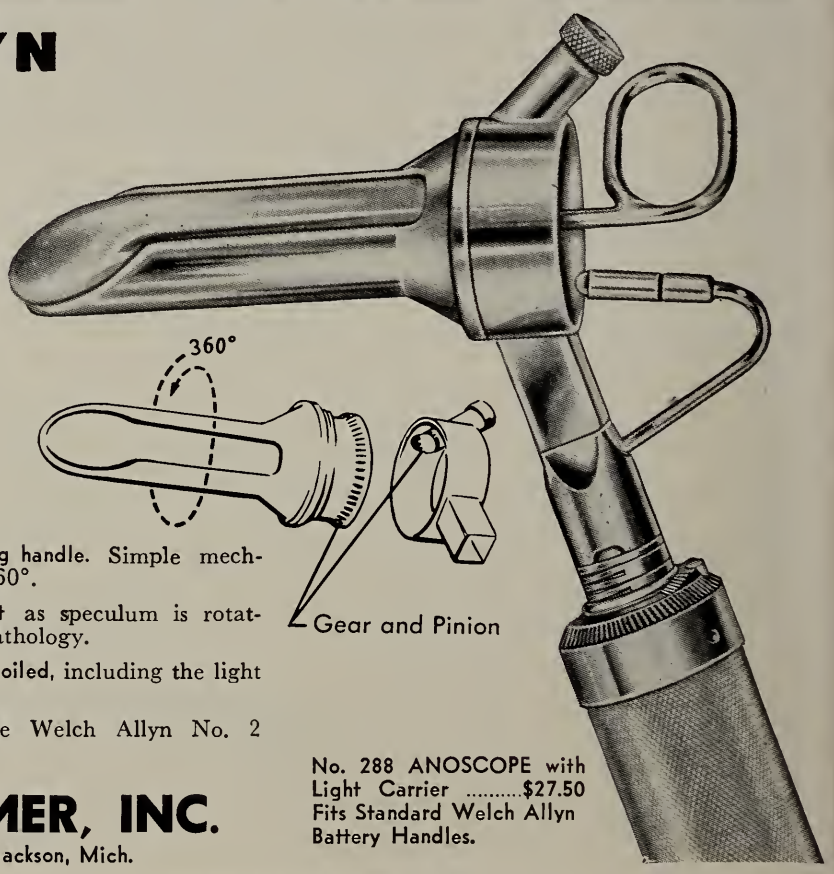
Thomas Francis, Jr., M.D., University of Michigan professor of epidemiology, was the Beaumont lecturer this year. Doctor Francis was honored at the Beaumont Memorial Foundation subscription dinner which opened the evening. In discussing "Immunity to Virus Dis-

(Continued on Page 840)

WELCH ALLYN
LIGHTS THE WAY

NEW ROTATING ANOSCOPE

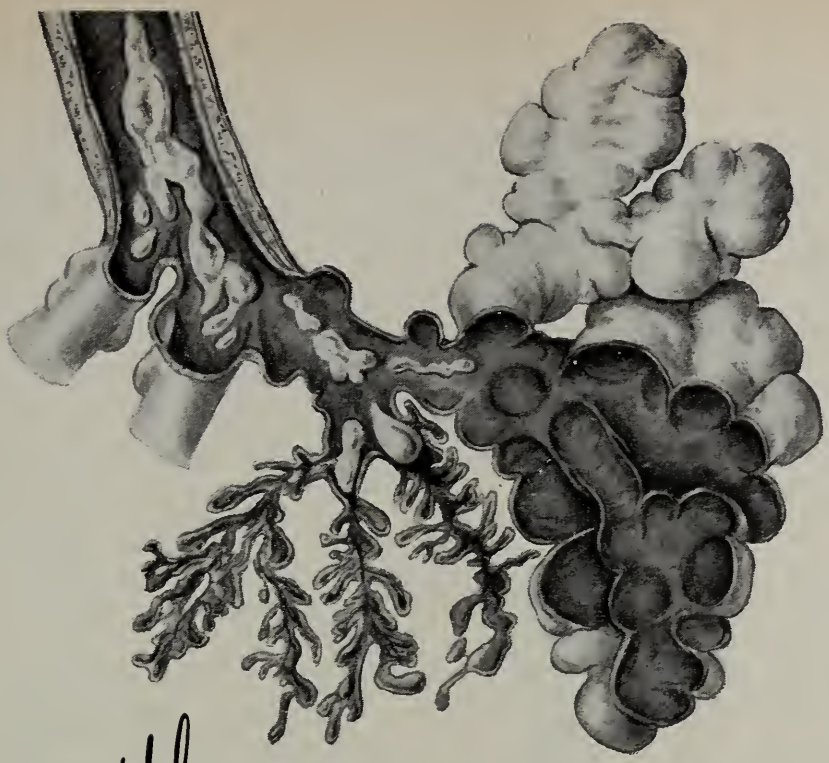
Facilitates examination and instrumentation



- Speculum can be rotated without moving handle. Simple mechanism turns speculum through full 360°.
- Orbiculated edges minimize discomfort as speculum is rotated even in the presence of rectal pathology.
- Entire instrument can be autoclaved or boiled, including the light carrier and lamp.
- Brilliant self-illumination with durable Welch Allyn No. 2 lamp.

No. 288 ANOSCOPE with Light Carrier $27.50
Fits Standard Welch Allyn Battery Handles.

NOBLE-BLACKMER, INC.
267 W. Michigan Ave. Jackson, Mich.



Clear the air

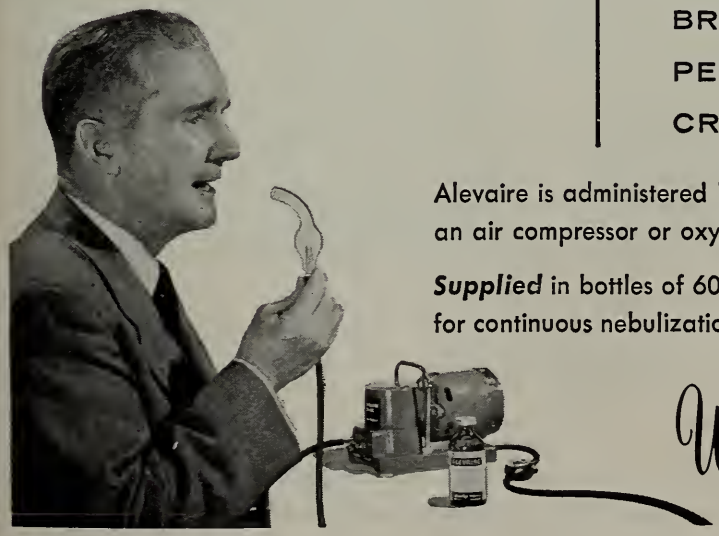
with ALEVAIRE®

inhalation therapy

WETS, THINS, LOOSENS PULMONARY SECRETIONS

Very useful in...

... BRONCHITIS
BRONCHIAL ASTHMA
BRONCHIECTASIS
PERTUSSIS
CROUP



Alevaire is administered by means of a nebulizer operated with an air compressor or oxygen.

Supplied in bottles of 60 cc. for intermittent and 500 cc. for continuous nebulization.

Winthrop LABORATORIES
NEW YORK 18, N. Y.

Alevaire, trademark reg. U.S. Pat. Off.

(Continued from Page 838)

eases," Doctor Francis declared that viral diseases, up to the present, are not susceptible to any of the therapeutic drugs applicable in other infectious states and that they can be prevented more easily than they can be cured.

* * *

M.D. Locations—through February 28, 1959 were:

Placed by Michigan Health Council
Charles A. Hattaway, M.D., Alma
Paul Sepetys, M.D., Dearborn

Assisted by Michigan Health Council
Richard A. Knecht, M.D., Petoskey
Gerald W. Morris, M.D., Mt. Clemens
Ralph F. Woodbury, M.D., Grosse Pointe

* * *

George J. Curry, M.D., Flint, has been appointed a member of the Editorial Board of the *American Journal of Surgery*. Doctor Curry was coordinator of the October, 1958, number of the *Journal* in which sixteen manuscripts from medical authors across the land were featured.

* * *

The Trudeau School of Tuberculosis and Other Pulmonary Diseases will hold its forty-fourth session at Saranac Lake, N. Y., June 8-26. Half the time will be devoted to a consideration of tuberculosis and the other half to other diseases.

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council:

March 8, 1959—"Michigan Clinical Institute"—W. W. Babcock, M.D., Detroit, and Sidney E. Chapin, M.D., Dearborn.

March 15, 1959—"Careers in the Dairy Industry"—(Film—"This is the Dairy Industry").

March 22, 1959—"The Human Eye"—(Film).

March 29, 1959—"Sun and Skin"—(Film).

* * *

AMEF Giving Stressed as Current Tuition Fee.—A spokesman at the eighth annual AMEF state chairmen's meeting in Chicago urged a change in the appeal made by the Foundation to the medical profession.

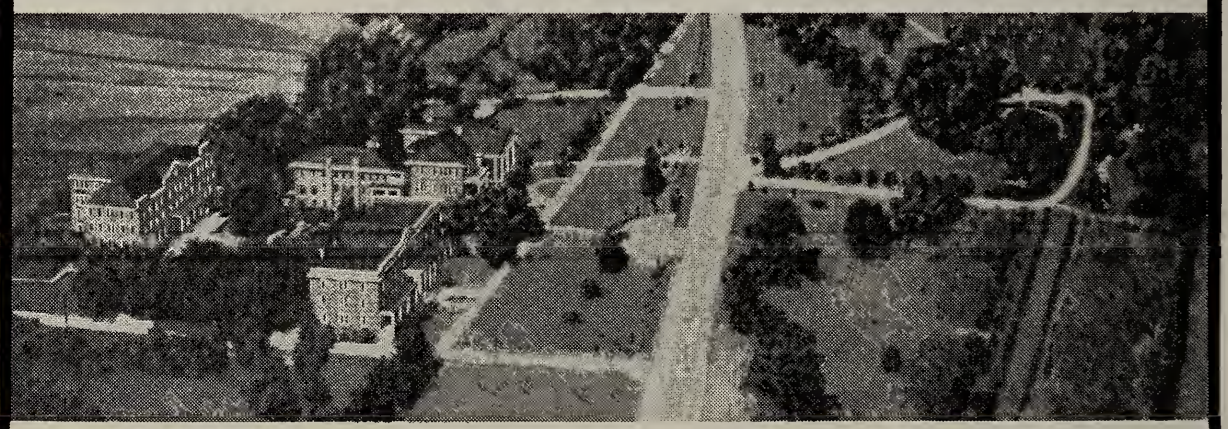
Hugh H. Hussey, M.D., Dean of Georgetown University School of Medicine and member of the AMA Board of Trustees, said:

"Rather than stress American Medical Education Foundation contributions as payment for a debt owed, let us instead emphasize that they are current tuition fees. . . . The learning process didn't stop at graduation. If it had, you wouldn't know half as much as the residents in hospitals where you treat your patients . . . you've been learning ever since you left medical school. And the chief source for that learning has been the same school from which you graduated. The only difference is that now they must depend on your conscience when it comes to collecting tuition."

(Continued on Page 842)

Nursing Care for Elders In The Deep South

Green Acres
INC.
MILLEDGEVILLE, GA.



Owned by Doctors and operated by a registered nurse in a beautifully landscaped 20 acre estate in the mild climate of Middle Georgia. All buildings housing guests sprinkled. *Rates do not include medical care, medication, personal laundry or other extras.

Mrs. Sue H. Baldwin, R. N.
Superintendent

***Monthly Rates** — **Camellia Court from $150**
Magnolia Hall from $210

The South's Finest Health Resort for Elders



LIFE STORY

The leading site of cancer today is the colon and rectum. In 1958, 58,000 new cases were diagnosed.

The present 5-year survival rate for these cancers is less than 30%. This figure could be greatly increased by closing the very wide gap between *actual* and *possible* survival rates.

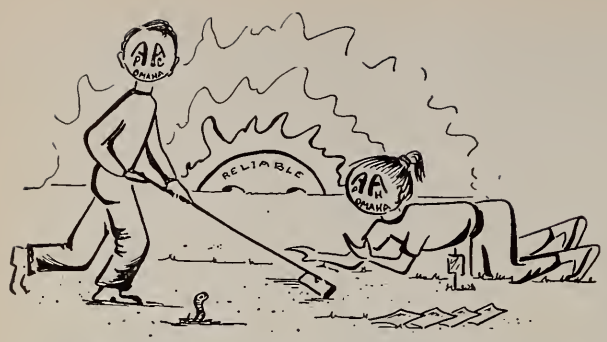
Earlier diagnosis is an immediate requirement. The American Cancer Society constantly stresses the importance of annual health checkups for all adults, and urges physicians to employ digital and proctoscopic examination of the rectum and colon to find cancer in an early stage.

With your assistance, doctor, in persuading patients to accept these uncomfortable, time-consuming procedures, the gap between actual and possible survival rates could be rapidly closed.

AMERICAN CANCER SOCIETY

Michigan Division, Inc.
1205 E. Saginaw Street
Lansing, Michigan

Southeastern Michigan Division
4811 John R. Street
Detroit, Michigan



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM

PHYSICIANS SURGEONS DENTISTS

ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

(Continued from Page 840)

The University of Southern California School of Medicine will hold a postgraduate refresher course again this summer in Honolulu. Information about the broad curriculum for the course, July 29-August 15, may be obtained from the school.

* * *

The First International Medical Conference on Mental Retardation at Portland, Maine, July 27-31, has selected W. W. Zuelzer, M.D., University of Detroit professor of pediatric research, to present an address.

* * *

The Fourth International Goiter Conference will be held July 5-9, 1960, in London. Applications for travel grants may be made to the American Goiter Association, 149½ Washington Avenue, Albany 10, N. Y.

* * *

Dr. Trimby Honored.—An "Exceptional Service to Safety" pin has been awarded to Robert H. Trimby, M.D., Lansing, by the Greater Lansing Safety Council. With the award he was wished Godspeed in his new practice with a private school at Fort Lauderdale, Florida. As chairman of the preventative medicine committee of the Ingham County Medical Society, Doctor Trimby conducted a three-year survey of home accidents. The results were printed in a booklet, "Home Sweet? Home" and distributed widely in the central Michigan area.

The safety citation, presented by James F. Anderton, president of the safety council, declared, "Doctor Trimby not only gave generously of his time in making the survey possible, but also appeared before many groups to point out the need for special emphasis programs for this type of accident prevention work." Dr. Trimby shortly will leave Michigan to practice in Florida.

All success and happiness, Dr. Trimby!

* * *

Adoption Law Changes Recommended.—Speaking at the annual Clinical Institute of the State Medical Society, Ernest H. Watson, M.D., of The University of Michigan Medical Center, recommended four major changes in Michigan's laws and practices controlling the adoption of children: strict anonymity between natural and adopting parents, limiting adoption procedures to recognized social agencies, cancelling the right of parents to place their own children for adoption, and a renewed emphasis on the well-being of the child himself.

Dr. Watson is professor of pediatrics and communicable disease at the U-M Medical Center and chairman of the State Medical Society's Committee on Adoption. He is also a member of the Adoptions Committee of the National Academy of Pediatrics.

He said physicians are directly or indirectly involved in nearly all adoptive practices, and can influence needed changes in existing laws.

Natural parents and adoptive parents should have no knowledge of each other's identity. Human emotions are such that to proceed on any other basis is dangerous to the success of the adoption.

On the question of social agencies, they are better prepared than physicians to offer a wide choice of adoptive parents, collect and record valuable data on the



natural and adopting parents, and when necessary, to act as temporary guardian for the child before placement.

The biggest legal loophole in adoptive practices today is the presumed inherent right of parents to place their children for adoption.

This leads to serious abuses. An illegitimately pregnant teen-ager is hardly in a position to find proper parents for her child. Her emotional, social and financial predicaments make her an easy prey for persons who seem at times to forget completely the needs of the baby.

Emphasizing the future welfare of the child will preclude placement to please friends, or to get some unfortunate girl off the hook of an illegitimate pregnancy. Children are not chattels, and should not be handed about at the whim of adults who may have motives other than the future welfare of the child.

* * *

A special session on new concepts in aging will be held during the annual convention of the American Medical Association in Atlantic City, June 8-12.

The meeting is designed to present the practicing physician with a concentrated review of current thinking regarding health care of the aged, and to provide him with concrete health recommendations which he can translate to his own older patients.

Keynoting the session will be a series of panels devoted to Diseases Among the Aged, Nutritional Counseling, Promoting Physical Fitness, and Motivating the Older Person. Panel members will include Drs. David B. Allman, Leland S. McKittrick, Edward C. Reifenstein, Irving S. Wright, Walter E. Vest, Jr., Frederick C. Swartz, Frederick J. Stare, Clive M. McCay, Margaret A. Ohlson, Henry A. Holle, Norman Lee Barr, Theodore G. Klumpp, Janet Wessell, Edward H. Williams, Ewald W. Bussee, Howard P. Rome, and Cecil Wittson.

These nationally recognized authorities in their fields will cover such points as (1) special treatment aspects of cardiovascular, neoplastic and bone diseases among the aged, (2) effects of adequate nutrition on rehabilitation potential for older patients, (3) variables in prescribing a physical activity program for the older individual and (4) the effects of physical health, social adjustment and psychological functioning on motivation in the older person.

Each panel presentation will be followed by a discussion period in which the primary interests of the audience will be explored and important ideas summarized. Dr. Edward L. Bortz of Philadelphia will close the session by summarizing the health recommendations brought out during the day in a formula for full living by the aging person.

Physicians planning to attend the session are invited to send questions or points they would like to have discussed to the Committee on Aging, A.M.A., 535 North Dearborn, Chicago 10, Illinois. The areas of interest so indicated will be brought out as far as possible during the session. Queries should be received at A.M.A. headquarters not later than Wednesday, May 27.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

Malpractice Prophylaxis

AVOIDING
MISUNDERSTANDING
ON FEES

Specialized Service makes our doctor safer

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office

George A. Triplett and Richard K. Wind
Representatives

2405 West McNichols Road

Telephone University 2-8064

Communications

SUBMISSION OF CLAIMS

1. *Delay in Medicare Billings.*—This office is concerned about the receipt of a large number of claims which have been delayed for a considerable period of time after completion of care. Delayed billings cause many problems for the Government, the contractors, the dependent or sponsor, and the source of care, all of whom are interested in settling the matter of payment as soon as practicable. From the Government's standpoint, the timely receipt of claims is most important in that the information therefrom is used as the basis for budgetary requests and other required statistical data.

2. *Future Claims.*—It is emphasized that Medicare contracts call for payment to be made on the basis of "complete" claims. Hospitals and physicians are urged to obtain all of the necessary information, including the Medicare Permit if required, or make arrangements for obtaining same, at the time the patient makes the initial visit and at the time the understanding is reached that care will be rendered under the Medicare Program. It is particularly important to examine the DD Form 1173 (Uniformed Services Identification and Privilege Card) and to obtain and record the required information therefrom, or to obtain adequate documentation establishing that the patient is an eligible dependent of an active duty member of the Uniformed Services. Physicians and hospitals are urged to submit claims as soon as care has been terminated. This will assist in cutting down correspondence required to complete the information necessary on the Claim Form for payment. With the passage of time, records may be misplaced and difficulty experienced in assembling all of the information required to submit a "complete" claim. Also, with the passage of time, the serviceman may be discharged or reassigned and he and the dependent may leave the area where care was received. In some cases, difficulty is encountered by the Uniformed Services in contacting the reassigned member or a former serviceman and his dependents after discharge.

3. *Old Claims.*—For the same reasons outlined above, physicians and hospitals are urged to "complete" and submit old claims, on hand, as soon as practicable. With the passage of time, it will become more and more difficult to process these claims and resolve difficulties which may arise in connection with them.

Progress in cleaning up old claims and progress in cutting down on the time-lag between termination of care and submission of claims will be the subject of inquiry on future visits to contractors by representatives of the Office for Dependents' Medical Care.

FLOYD L. WERGELAND
Brigadier General, M.C.
Executive Director
Office for Dependents' Medical Care

Although the number of cases of paralytic polio in this country last year increased by one-fourth over 1957, most epidemics in 1958 centered around groups where use of the Salk vaccine lagged. "The evidence is now overwhelming," says Health Information Foundation, "that the full series of three or more Salk inoculations provides a high level of protection from paralytic polio." Moreover, "No break in the safety of the vaccine has shown up since 1955."

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

TEXTBOOK OF SURGERY. Third Edition. Edited by H. Fred Mosely, M.A., D.M., M.Ch. (Oxon), F.A.C.S., F.R.C.S. (Eng.), F.R.C.S.(C). Assistant Professor of Surgery, McGill University; Associate Surgeon, Royal Victoria Hospital, Montreal, Canada. 738 text illustrations and 108 color plates. St. Louis: The C. V. Mosby Company, 1959. Price, $17.00.

The third edition of Textbook of Surgery lists many recognized authorities in their respective fields as contributors. The various chapters have been revised and brought up-to-date in many of the rapidly advancing fields, such as radioactive isotopes and vascular surgery. All of the contributors write in the matchless style found in England and Canada, but often sadly lacking in textbooks by American authors.

The book is well organized and concise. The charts and uncolored pictures are well chosen and illustrate their points clearly. The book contains over 100 matchless color plates by Frank Netter, supplied to the authors from the Ciba Collection of Medical Illustrations. These plates alone put this book out well beyond the standard medical textbook now in use. It also contains an excellent bibliography which is unique in that it lists available medical movies for the various conditions described, and where they can be obtained. This book is a must for students, and strongly recommended for the library of any M.D. encountering surgical lesions. It may well become a standard textbook used in medical schools.

I recommend it very highly.

J.M.H.

ANATOMY FOR SURGEONS: VOLUME 3, THE BACK AND LIMBS. By W. Henry Hollinshead, Ph.D., Professor of Anatomy, Mayo Foundation, University of Minnesota. Head of the Section of Anatomy, Mayo Clinic, Rochester, Minnesota. With 785 Illustrations. New York: Hoober-Harper Book. Price, $23.50.

This third volume reviews the anatomy of the back and limbs. It differs from the ordinary anatomy book in that it correlates the clinical aspects with the anatomy and gives reasons for various approaches. These are of extreme practical importance in handling many of the surgical conditions encountered in present day practice. It is equally as valuable to the older, experienced surgeon as well as to the beginner. This volume contains excellent illustrations, sketches and summarizing charts. At the end of each division is an extensive bibliography. This is an excellent reference and deserves a place in the library of any surgeon concerned with extremity or back surgery.

J.M.H.

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

CLINICAL ORTHOPAEDICS. Anthony F. DePalma, Editor-in-Chief, with the assistance of the Associate Editors, the Board of Advisory Editors, the Board of Corresponding Editors. Number Twelve. Fall, 1958. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price, $7.50.

This excellent Editor-in-Chief, a renowned orthopedist, presents a book entitled Clinical Orthopaedics, which is divided into three major sections, Rehabilitation, General Orthopaedics, and Items of Interest in Orthopaedics. For the practitioner, the section on Orthopaedics is exceedingly interesting, detailed, and becomes an entire textbook in Physical Medicine and Rehabilitation. The chapter on Hemiplegia is outstanding in its development, and presents the most modern concepts from the standpoint of diagnosis, as well as management of the hemiplegic. Rehabilitation of the amputee again forms almost a complete textbook in itself, by the outstanding authority Kessler. Other points of interest have to do with disability evaluation, physiologic interpretation of stand-up and step-up exercises in rehabilitation and electromyography with reference to the upper extremities. Other features of rehabilitation make a well-rounded discussion in the field of Physical Medicine.

M.K.N.

BOOKS RECEIVED

THE CARE OF THE PATIENT IN SURGERY INCLUDING TECHNIQUES. Third Edition. By Edythe Louise Alexander, R.N., B.S., M.A., Director of Nursing Service and Principal of the School of Nursing, Lutheran Medical Center, Brooklyn, N. Y. Formerly Supervisor of Operating Rooms and Associate Director of Nursing Service at the Roosevelt Hospital, New York, N. Y.; formerly Supervisor at Mountainside Hospital, Montclair, N. J., and of the Private Pavilion Operating Rooms, New York Hospital, New York, N.Y. 555 Illustrations, including 5 in color. St. Louis: The C. V. Mosby Company, 1958. Price, $12.75.

CRIME AND INSANITY. Edited by Richard W. Nice. New York: Philosophical Library, 1958. Price, $6.00.

AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE. By Claude Berhard. Translated by Henry Copley Green, A.M. With an introduction by Lawrence J. Henderson. With a new Foreword by I. Bernard Cohen, Professor, Harvard University. New York: Dover Publications. Inc., 1958. Price, $1.50.

NEGROES AND MEDICINE. By Dietrich C. Reitzes. Published for The Commonwealth Fund. Cambridge, Massachusetts: Harvard University Press, 1958. Price, $7.00.

TECHNIC AND PRACTICE OF PSYCHOANALYSIS. By Leon J. Saul, M.D., Professor of Clinical Psychiatry, Medical School of the University of Pennsylvania; Training Analyst, Philadelphia Psychoanalytic Institute; Psychiatric Consultant, Swarthmore College. Philadelphia and Montreal: J. B. Lippincott Company, 1958. Price, $8.00.

RADIOACTIVE ISOTOPES IN CLINICAL PRACTICE. By Edith H. Quimby, Sc.D., Professor of Radiology (Physics), College of Physicians and Surgeons, Columbia University, New York; Sergei Feitelberg,

The HAVEN SANITARIUM, Inc.
Rochester, Michigan
In operation since 1932

M. O. Wolfe, M.D.
Director of Psychotherapy

Ralph S. Green, M.D.
Clinical Director

Graham Shinnick
Manager

A private psychiatric hospital for the intensive treatment of mental and emotional illnesses.

Telephone: OLive 1-9441

M.D., Director, Physics Department, The Mount Sinai Hospital; Associate Clinical Professor of Radiology, College of Physicians and Surgeons, Columbia University, New York; Solomon Silver, M.D., Attending Physician; Chief, Thyroid Clinic, The Mount Sinai Hospital; Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York. 97 illustrations. Philadelphia: Lea & Febiger, 1958. Price, $10.00.

A PRIMER ON COMMON FUNDAMENTAL DISORDERS. Practical Diagnosis and Management. By Jack W. Fleming, M.D., Department of Internal Medicine, The Medical Center Clinic, Pensacola, Florida. With illustrations by Jerry Robinson. Boston, Toronto: Little, Brown & Co., 1958. Price, $5.00.

LOVE, SKILL AND MYSTERY. A handbook to marriage. By Theodor Bovet. Garden City, New York: Doubleday & Company, Inc., 1958. Price, $3.50.

The average person in the United States forked over $530.80 in taxes to the Federal, state and local governments last year, the Commerce Department reports.

The total tax bite for the fiscal year ending June 30, 1957, amounted to $98,900,000,000.

Federal taxes made up 70 per cent of the total, state levies, 15 per cent and local taxes, another 15 per cent. Federal revenue was up 7 per cent over the previous twelve months, state tax income up 8.6 per cent, and local revenues 11.7 per cent.



Portable Ultrasonic Generator. F.C.C. Type Approved.

Portable ULTRASONIC Generator

1. Federal Communications Commission Type approval No. U-153
2. Underwriters' Laboratories Approval
3. Genuine Quartz Crystal of five square centimeters
4. Output up to fifteen Watts, total
5. Intensity selected on Indexed Rotary Switch with steps of 0.2, 0.5, 1.0, 1.5, 2.0 and 3.0 Watts per square centimeter, each of which is calibrated.
6. Handle for easy carrying and wrap-around for cables
7. Bracket furnished for wall mounting.
8. Cabinet also fits standard size Mobile Utility Stand
9. Cabinet dimensions: 16⅝" long, 10" deep, 5¾" high
10. Weight 28 pounds

H. G. FISCHER & CO.
OF DETROIT
21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE 7-4140

Here's to your good health Always...



YOU KNOW IT'S BEST WHEN YOU GET

Sealtest
MILK AND ICE CREAM



MARY POGUE SCHOOL, Inc.

Founded 1903. Complete facilities for training retarded and epileptic children educationally and socially. Pupils per teacher strictly limited. Excellent educational, physical and occupational therapy programs.

Varied group activities under competent direction on our spacious grounds of 28 acres. Selected movies.

Separate buildings for boys and girls, each with round-the-clock supervision of skilled personnel. Total enrollment 90.

G. H. Marquardt, M.D.
Medical Director

Barclay J. MacGregor
Registrar

26 GENEVA ROAD, WHEATON, ILLINOIS
(near Chicago)

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Write: Box 9, 606 Townsend Street, Lansing, Michigan.

FOR RENT in Bay City, Michigan—Two newly completed offices which are part of a clinic building. On ground level, each having the following features: waiting room and business office; adequate rest rooms; consultation office, two examining offices, laboratory with ample cupboards; storage closets, separate air conditioning and gas heating units. Ample parking in rear of offices. Reply: Box 10, 606 Townsend Street, Lansing 15, Michigan.

FOR RENT—Three-room suite in new medical building. Location ideal—one hour from the heart of Detroit. One G.P. who is also interested in helping with Industrial Medicine as a relief man. Up and growing community. For further details, contact: W. C. Gibson, M.D., 216 East Commerce Street, Milford, Michigan. Phone Milford Mutual 4-6775 and 4-6771.

GENERAL SURGEON—Board eligible; married, Category IV, 38. Finishing residency July; seeking location, association with group clinic or established surgeon. Reply: Box 11, 606 Townsend Street, Lansing 15, Michigan.

PHYSICIAN—With Michigan license, to work in Detroit area hospital emergency room. Positions open on all shifts or weekends. Write Box 12, 606 Townsend Street, Lansing 15, Michigan, indicating shift available and salary expected.

In Lansing

HOTEL OLDS

Fireproof

400 ROOMS

Have You Registered
for the
Atlantic City Session
of the
American Medical Association
June 8 to 12?

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 JUNE, 1959 NUMBER 6

Contributors to This Issue



W. H. Beierwaltes, M.D.



W. B. Hubbard, M.D.



J. Parks, M.D.



F. F. Yonkman, M.D.

Table of Contents

New Drugs for Old Uses and New Uses for Old Drugs
Fredrick F. Yonkman, M.D. 913

Management of Acute Toxemia of Pregnancy
John Parks, M.D., and *James G. Sites, M.D.* 919

Operative and Office Accessories
W. B. Hubbard, M.D. 924

Congenital Hypothyroidism
William H. Beierwaltes, M.D., George H. Lowrey, M.D., Richard A. Aster, M.D., Govind Raman, M.B., B.S., Edward A. Carr, Jr., M.D. 927

Psychologic Factors in Gynecology
H. T. Schmale, M.D. 939

President's Message 943

Editorial
- What Will Be Medicine's Future? 942
- Come, Miracle! 944
- To Correct Misinformation and Misapprehension 944
- Blue Shield Future 945
- Medical Care for Federal Civil Employes 946
- OASDI Coverage of Doctors 946
- L. Fernald Foster Has Passed 947
- Unprecedented Procedure 948

Open Forum on Prepayment Hospital and Medical Care Plans
- Introduction 949
- Labor Views Financing. *Jerome Pollack* 950
- Management Views Financing. *Malcolm L. Denise* 955
- Hospitals View Financing. *George E. Cartmill, Jr.* 960
- The Physician Views Financing. *Max Lichter, M.D.* 963
- Blue Cross Views Financing. *H. G. Pearce*..... 967
- Commercial Insurance Views Financing. *Joseph F. Follman, Jr.* 971

Michigan Medical Service—Payments for Services to Subscribers 977

Michigan State Medical Society—Ninety-fourth Annual Session
- Official Call 978
- Information 979
- House of Delegates—Order of Business..... 980
- MSMS House of Delegates, 1959 982

Michigan's Department of Health 986

In Memoriam 988

News Medical 992

The Doctor's Library 1010

Committees of the Council 1958-1959..... 858

Michigan Clinical Institute 871

PR Report 874

What They Said About the 1959 Michigan Clinical Institute 878

Rural Health Conference Hits Record 882

Cancer Comment 886

You and Your Business 890

Medical Meetings and Clinic Days 894

AMA Washington Letter 898

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 JUNE, 1959 NUMBER 6

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
B. T. MONTGOMERY, M.D.....Sault Ste. Marie
G. THOMAS McKEAN, M.D.....Detroit
G. ALLEN PAYNE, M.D.....Grand Rapids
D. G. PIKE, M.D.....Traverse City
E. S. OLDHAM, M.D.....Breckenridge

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
*L. FERNALD FOSTER, M.D.
441 E. Jefferson, Detroit, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....*L. FERNALD FOSTER, M.D.....Detroit
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
A. E. SCHILLER, M.D., *Vice Chairman*, Detroit
*L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		Term Expires
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice-Speaker*		Detroit
*L. FERNALD FOSTER, M.D.	*Secretary*		Detroit
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
A. E. SCHILLER, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
*L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

*Deceased.

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D.....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
W. W. Babcock, M.D., Detroit.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
W. D. Barrett, M.D., Detroit.....1960
R. L. Novy, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

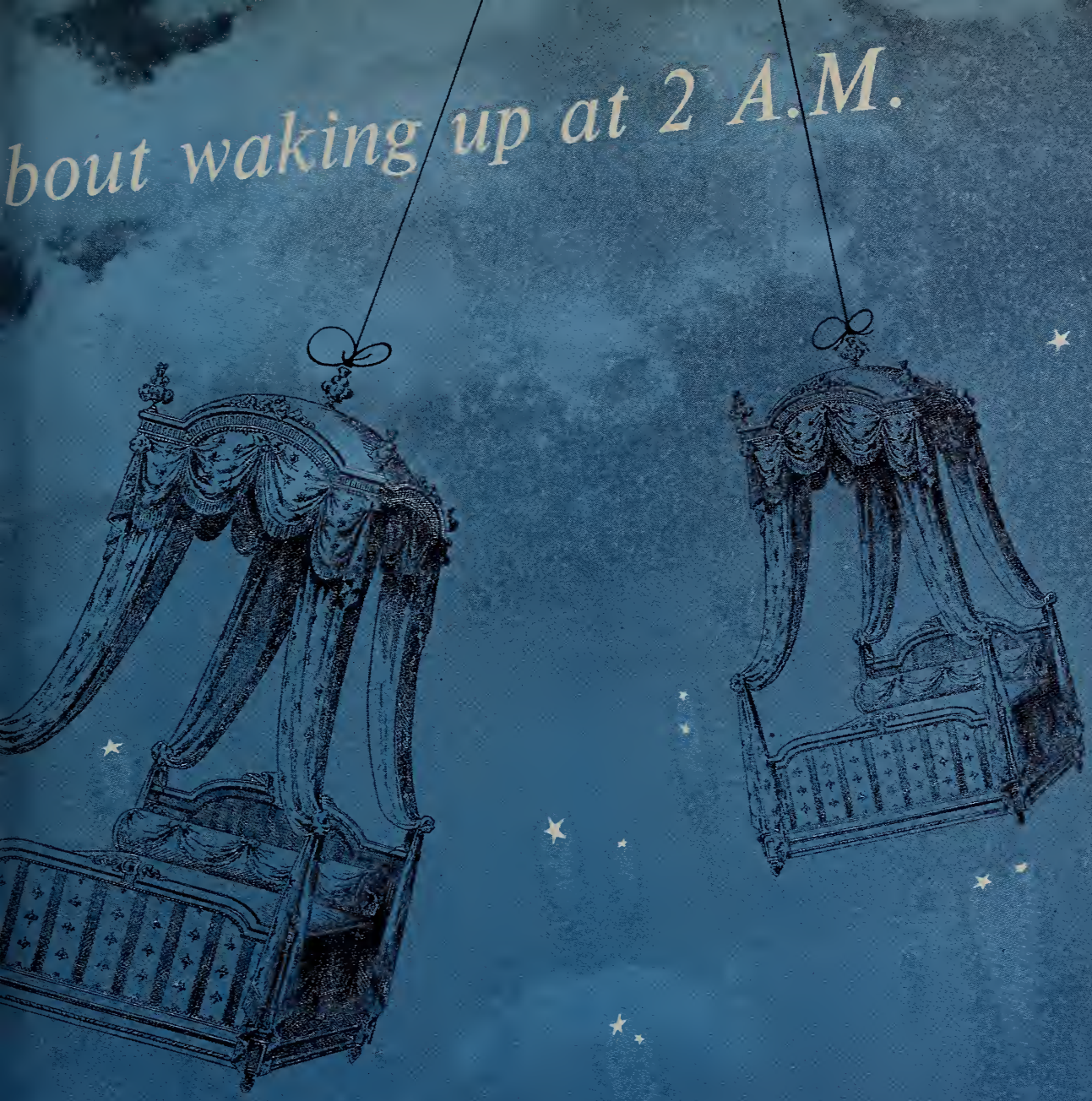
Alternates

O. J. Johnson, M.D., Bay City.....1959
E. F. Sladek, M.D., Traverse City.....1959
Wm. Bromme, M.D., Detroit.....1960
L. R. Leader, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit

bout waking up at 2 A.M.



nebralin®

ned-release tablet

timed-release action for a full night's sleep

NEBRALIN is designed to duplicate the normal sleep pattern. It encourages muscular relaxation and induces sustained, relaxed sleep by the release of Dorsital and mephenesin in a timed-release tablet. Rapid-acting mephenesin quickly relaxes skeletal muscles to overcome "fatigue-tension" and conditions the body for sleep. Dorsital provides CNS sedation to induce sound, relaxed sleep. The initial and sustaining dosages are designed to keep the amount of barbiturate to be inactivated at any one time at a low level tapering toward morning. Evidence indicates that mephenesin is capable of producing sleep,[1] and when combined with a barbiturate enhances barbiturate action.[2, 3] Moreover, the integrated action of the two components permits smaller dosages of each,[4] assuring your patients refreshed awakenings without "morning hangover."

1 Schlesinger, E. B.: Tr. New York Acad. Sc. 2:6, (Nov.) 1948.
2 Richards, R. K., and Taylor, J. D.: Anesthesiology 17:414, 1956.
3 Shideman, F. E.: Postgrad. Med. 24:207, 1958.
4 Berger, F.: Pharmacol. Rev. 1:243, 1949.

WITH-DORSEY · a division of The Wander Company · Lincoln, Nebraska · Peterborough, Canada

Committees of the Council 1958-1959

COUNTY SOCIETIES COMMITTEE

W. M. LeFevre, M.D., *Chairman*.....
289 W. Western, Muskegon
W. W. Babcock, M.D.....868 Fisher Bldg., Detroit
H. H. Hiscock, M.D.....
1315 Mott Foundation Building, Flint
O. J. Johnson, M.D.....207 N. Walnut, Bay City
B. T. Montgomery, M.D.....
309 Ashmun St., Sault Ste. Marie
D. G. Pike, M.D.....876 E. Front Street, Traverse City

FINANCE COMMITTEE

Ralph W. Shook, M.D., *Chairman*.....
611 American National Bank Bldg., Kalamazoo
C. N. Hoyt, M.D.....804 Huron Ave., Port Huron
O. B. McGillicuddy, M.D.....
1816 Michigan National Tower, Lansing
G. Thomas McKean, M.D.....
1515 David Whitney Bldg., Detroit
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
T. P. Wickliffe, M.D.....1167 Calumet Avenue, Calumet

PUBLICATION COMMITTEE

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
Wm. Bromme, M.D.....318 Professional Bldg., Detroit
H. J. Meier, M.D.....87 W. Pearl, Coldwater
E. S. Oldham, M.D.....Breckenridge
C. Allen Payne, M.D.....
1840 Wealthy St., S.E., Grand Rapids

ADVISORY COMMITTEE OF PAST PRESIDENTS

L. J. Hirschman, M.D., *Chairman*.....
2619 Munson Ave., Traverse City
B. R. Corbus, M.D., *Vice Chairman*.....
325 Union Ave., S.E., Grand Rapids
Otto O. Beck, M.D.....308 Wabeek Bldg., Birmingham
H. R. Carstens, M.D.....83 Longhill St., Springfield, Mass.
Henry Cook, M.D.....346 Saginaw, Flint
H. H. Cummings, M.D.....326 N. Ingalls St., Ann Arbor
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
Wilfrid Haughey, M.D.....610 Post Bldg., Battle Creek
R. J. Hubbell, M.D.....252 E. Lovell St., Kalamazoo
L. W. Hull, M.D.....20115 Canterbury Rd., Detroit 21
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
W. S. Jones, M.D.....P.O. Box 76, Menominee
R. L. Novy, M.D.....855 Fisher Bldg., Detroit
G. C. Penberthy, M.D.....
1515 David Whitney Bldg., Detroit
J. M. Robb, M.D.....633 David Whitney Bldg., Detroit
E. F. Sladek, M.D.....123 E. Front St., Traverse City
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
C. E. Umphrey, M.D...15300 W. McNichols Rd., Detroit
P. R. Urmston, M.D.....916 Washington Ave., Bay City
Arch Walls, M.D.....17201 W. McNichols Rd., Detroit

LIAISON COMMITTEE WITH MICHIGAN MEDICAL SCHOOLS

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
G. B. Saltonstall, M.D.....Charlevoix
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
H. A. Towsley, M.D.....1000 Berkshire, Ann Arbor
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

PERMANENT CONFERENCE COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION, MICHIGAN LEAGUE FOR NURSING, AND MICHIGAN STATE NURSES ASSOCIATION

E. M. Vardon, M.D., *Chairman*.....
12897 Woodward Ave., Highland Park, 3
M. W. Buckborough, M.D...511 Huron St., South Haven
E. G. Merritt, M.D.....10 Peterboro, Detroit
J. D. Miller, M.D.....50 College Ave., S.E. Grand Rapids
J. W. Rice, M.D.....421 McNeal St., Jackson
J. A. Witter, M.D.....344 Glendale Ave., Detroit

COMMITTEE ON AWARDS

*L. Fernald Foster, M.D., *Chairman*.....
7th Floor, 441 E. Jefferson, Detroit
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
Wilfrid Haughey, M.D.....610 Post Bldg., Battle Creek

COMMITTEE ON COURSES ON MEDICAL ECONOMICS AND ETHICS

C. Howard Ross, M.D., *Chairman*.....
715 N. University Ave., Ann Arbor
G. L. Coan, M.D.....2336 Van Alstyne Blvd., Wyandotte
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
C. J. France, M.D.....838 Berkshire, Grosse Pointe 30
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
J. M. Sheldon, M.D.....2121 Tuomy Rd., Ann Arbor
R. W. Teed, M.D.....2300 Melrose, Ann Arbor

COMMITTEE ON ARBITRATION

J. D. Fryfogle, M.D., *Chairman*.....
Medical Concourse, Northland Center, Detroit 35
W. L. Brosius, M.D.....16150 Sorrento, Detroit 35
E. L. Cooper, M.D.....914 Shirley Drive, Birmingham
M. S. Dennis, M.D.....751 S. Military St., Dearborn
H. J. F. Kullman, M.D.....V. A. Hospital, Dearborn
Mr. W. W. Boyles, *Advisor*.....441 E. Jefferson, Detroit

COMMITTEE ON NATIONAL DEFENSE

M. L. Lichter, M.D., *Chairman*.....
2900 Oakwood Blvd., Melvindale
C. P. Anderson, M.D.....16733 Plainview Rd., Detroit 19
T. I. Boileau, M.D.....2075 E. 14 Mile Rd., Birmingham
Mr. Jacques Cousin.....1084 Penobscot Bldg., Detroit
Douglas H. Fryer, M.D.....
Michigan Department of Health, Lansing
E. M. Fugate, M.D...412 Hackley Union Bldg., Muskegon
A. C. Furstenberg, M.D.....1313 E. Ann St., Ann Arbor
R. F. Hague, M.D.....210 E. Court St., Flint 3
R. L. Mainwaring, M.D.....1910 Russell, Dearborn
J. D. Miller, M.D.....
50 College Ave., S.E., Grand Rapids 3
G. L. Otis, M.D.....525 Wildwood Ave., Jackson
R. F. Powers, M.D.....142 Wylie, Saginaw
W. B. Prothro, M.D.....
303 Ionia Ave., N.W., Grand Rapids
C. J. Sprunk, M.D.....2900 Oakwood Blvd., Melvindale
M. E. Wehner, M.D.....131 River St., Manistique
Mr. Ronald Yaw.....
Blodgett Memorial Hospital, Grand Rapids
Isabelle Ryer, R. N., *Advisor*....334 Bates Street, Detroit
W. W. Armistead, D.V.M., *Advisor*.....
School of Vet. Medicine, M.S.U., East Lansing
D. D. Smith, D.D.S., *Advisor*.....401 River St., Manistee

*Deceased

(Continued on Page 860)



Just one prescription for Engran "Term-Pak" (270 TABLETS)
SQUIBB VITAMIN-MINERAL SUPPLEMENT
calling for one tablet a day will carry her through term to the six-week postpartum checkup. This means you are assured of a nutritionally perfect pregnancy, and she realizes major savings.*

SQUIBB

Squibb Quality — the Priceless Ingredient

'ENGRAN'®, 'TERM-PAK' AND 'FLEXIDOSE' ARE SQUIBB TRADEMARKS



* *And when baby comes, specify* Engran baby drops—*full* vitamin support in *half the volume* of most similar preparations — lasts twice as long. Supplied in 15 cc. and 50 cc. bottles. Convenient 'Flexidose' Dropper assures accurate dosage.

(Continued from Page 858)

LIAISON COMMITTEE WITH MICHIGAN VETERANS ORGANIZATIONS

William Bromme, M.D., *Chairman*.....
318 Professional Bldg., Detroit
L. C. Carpenter, M.D.....
50 College Ave., S.E. Grand Rapids
W. S. Jones, M.D.....P.O. Box 76, Menominee
J. E. Manning, M.D.....815 N. Michigan, Saginaw
E. F. Sladek, M.D.....123 E. Front, Traverse City
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek

COMMITTEE ON RURAL MEDICAL SERVICE

H. B. Zemmer, M.D., *Chairman*....311 Clay St., Lapeer
D. C. Bloemendaal, M.D.....351 N. Main, Zeeland
J. H. Fyvie, M.D.....202 S. Cedar St., Manistique
T. B. Hill, M.D.....710 N. Monroe, Lowell
B. L. Masters, M.D.....111 W. Dayton, Fremont
R. E. Paxton, M.D.....40 W. Sheridan, Fremont
F. D. Richards, M.D.....Dewitt, Michigan
J. R. Rodger, M.D.....Bellaire
R. W. Spalding, M.D.....Box 900, Lansing
C. F. Wible, M.D.....Sebewaing

SPECIAL COMMITTEE TO MEET WITH MICHIGAN DEPARTMENT OF SOCIAL WELFARE

G. W. Slagle, M.D., *Chairman*.....
203 N. E. Capitol Ave., Battle Creek
F. L. Doran, M.D.....110 Fulton St., E., Grand Rapids 2
Wilfrid Haughey, M.D.....610 Post Building, Battle Creek
L. E. Himler, M.D.....Mercywood Hospital, Ann Arbor
Milton Shaw, M.D.....320 Townsend, Lansing

MEDICAL PROCUREMENT ADVISORY COMMITTEE

C. I. Owen, M.D., *Chairman*.....Grace Hospital, Detroit
M. J. Capron, M.D.....618 Post Bldg., Battle Creek
W. H. Huron, M.D.....106 W. "B" St., Iron Mountain
E. C. Miller, M.D.....101 W. John St., Bay City
E. A. Oakes, M.D.....401 River St., Manistee
G. C. Penberthy, M.D.....
1515 David Whitney Bldg., Detroit
H. H. Stryker, M.D.....903 Edgemoor, Kalamazoo

COMMITTEE ON BLOOD BANKS

R. L. Mainwaring, M.D., *Chairman*.....
1910 Russell, Dearborn
J. H. Ahronheim, M.D.....
Foote Memorial Hospital, Jackson
W. G. Gamble, Jr., M.D.....2010 5th Ave., Bay City
J. A. Kasper, M.D.....19953 Clairview Ct., Detroit 36
D. L. Kessler, M.D.....
1610 Robinson Rd., S.E. Grand Rapids 6
R. E. Lininger, M.D.....2712 Highland Ct., St. Joseph
L. W. Walker, M.D.....1302 Pershing Dr., Lansing 10

HOSPITAL RELATIONS COMMITTEE

Ralphael Altman, M.D., *Chairman*.....
5057 Woodward Ave., Detroit 2
Hugh M. Fuller, M.D...1553 Woodward Ave., Detroit 26
A. H. Kretchmar, M.D.....460 S. Saginaw, Flint 10
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
E. P. Vary, M.D.....460 S. Saginaw St., Flint 3

LIAISON COMMITTEE WITH MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

G. B. Saltonstall, M.D., *Chairman*.....Charlevoix
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
A. C. Furstenberg, M.D.....1313 E. Ann St., Ann Arbor
G. H. Scott, Ph.D.....
Wayne State University College of Medicine, Detroit
E. W. Schnoor, M.D.....
844 Iroquois Dr., S. E., Grand Rapids 6
E. C. Swanson, M.D.....220 N. Main, Vassar

LIAISON COMMITTEE WITH STATE EXECUTIVE OFFICE

G. B. Saltonstall, M.D., *Chairman*.....Charlevoix
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
B. M. Harris, M.D.....27 S. Prospect, Ypsilanti
K. H. Johnson, M.D.....
1116 Michigan National Tower, Lansing
Ralph W. Shook, M.D.....
611 American Nat'l Bank Bldg., Kalamazoo
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

COMMITTEE ON "BIG LOOK"

W. S. Jones, *Chairman*.....P.O. Box 76, Menominee
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
K. H. Johnson, M.D.....1116 Mich. Nat'l Tower, Lansing
O. B. McGillicuddy, M.D.....
1816 Michigan Nat'l Tower, Lansing
G. B. Saltonstall, M.D.....Charlevoix
Ralph W. Shook, M.D.....
611 American Nat'l Bank Bldg., Kalamazoo
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
M. A. Darling, M.D.....673 Fisher Bldg., Detroit

SPECIAL COMMITTEE ON VA HOMETOWN MEDICAL CARE PROGRAM

William Bromme, M.D., *Chairman*.....
318 Professional Bldg., Detroit
H. Waldo Bird, Jr., M.D.....1313 E. Ann St., Ann Arbor
James E. Croushore, M.D...3001 W. Grand Blvd., Detroit
W. S. Jones, M.D.....P.O. Box 76, Menominee
G. Thomas McKean, M.D.....
1515 David Whitney Bldg., Detroit
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
William A. Scott, M.D.....252 E. Lovell, Kalamazoo
Mr. L. G. Goodrich.....441 E. Jefferson, Detroit

RELATIVE VALUE STUDY COMMITTEE

L. R. Leader, M.D., *Chairman*.....
1553 Woodward, Detroit 26
F. C. Brace, M.D.....1498 Lake Dr., S.E., Grand Rapids
H. T. Caumartin, M.D.....
1537 S. Washington Ave., Saginaw
A. J. Day, M.D.....245 Cloverly Dr., Detroit 36
H. A. Furlong, M.D.....35 W. Huron St., Pontiac
R. A. Johnson, M.D.....7815 E. Jefferson, Detroit 14
A. J. Neerken, M.D.....
1318 American Nat'l Bank, Kalamazoo

*Deceased

(Continued on Page 862)



in the depressed, unhappy patient

PROMPTLY IMPROVES MOOD

without excitation

- **Acts fast to relieve depression and its common symptoms:** sadness, crying, anorexia, listlessness, irritability, rumination, and insomnia.
- **Restores normal sleep**—without hang-over or depressive aftereffects. Usually eliminates need for sedative-hypnotics.

EFFICACY AND SAFETY CONFIRMED IN OVER 3,000 DOCUMENTED CASE HISTORIES.[1, 2, 3]



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each light-pink, scored tablet contains 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

References:

1. Alexander, L.: J.A.M.A. 166:1019, March 1, 1958.
2. Current personal communications; in the files of Wallace Laboratories.
3. Pennington, V.M.: Am. J. Psychiat. 115:250, Sept. 1958.

for depression

▲Deprol▲†

®WALLACE LABORATORIES, *New Brunswick, N. J.*

†TRADE-MARK

CD-9050

(Continued from Page 860)

MEDICAL CARE INSURANCE COMMITTEE

M. L. Lichter, M.D., *Chairman*.....
2900 Oakwood Blvd., Melvindale
J. J. Lightbody, M.D.....
501 David Whitney Bldg., Detroit
J. W. Logie, M.D.....833 Lake Dr., S.E., Grand Rapids
R. L. Mainwaring, M.D.....1910 Russell, Dearborn
D. G. Pike, M.D.....876 E. Front, Traverse City
F. C. Ryan, M.D.....507 S. Burdick St., Kalamazoo
W. F. Strong, M.D.....Ontonagon

COMMITTEE ON SELECTION OF ASSISTANT SECRETARY AND DIRECTOR OF SCIENTIFIC ACTIVITY

Ralph W. Shook, M.D., *Chairman*.....
611 American Nat'l Bnk. Bldg., Kalamazoo
W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
W. M. LeFevre, M.D.....289 W. Western, Muskegon
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
G. B. Saltonstall, M.D.....Charlevoix
*L. Fernald Foster, M.D., *Advisor*.....
7th Floor, 441 E. Jefferson, Detroit

COMMITTEE TO REVIEW THE PROBLEM OF MEDICAL PROFESSIONAL LIABILITY

C. E. Umphrey, M.D., *Chairman*.....
15300 McNichols Rd., Detroit
Mr. George H. Cary, LL.B.....1805 Ford Bldg., Detroit
Charles H. Clifford, M.D.....10 Peterboro St., Detroit 1
Mr. Lester P. Dodd, LL.B.....1604 Dime Bldg., Detroit
H. F. Falls, M.D.....University Hospital, Ann Arbor
E. Walter Hall, M.D.....10 Peterboro, Detroit 1
F. B. MacMillan, M.D.....1553 Woodward, Detroit
C. H. Ross, M.D.....715 N. University Ave., Ann Arbor
J. W. Schureman, LL.B.....1502 Nat. Bank Bldg., Detroit
Arthur J. Vorwald, M.D.....1401 Rivard St., Detroit 7

ADVISORY COMMITTEE TO MICHIGAN MULTIPLE SCLEROSIS CENTER

Russell N. DeJong, M.D., *Chairman*.....
1313 E. Ann St., Ann Arbor
James W. Nunn, M.D.....106 W. Davison, Detroit 3
J. S. Rozan, M.D.....103 N. Washington Ave., Lansing 16

HEALING ARTS STUDY COMMITTEE

B. M. Harris, M.D., *Chairman*.....
27 S. Prospect, Ypsilanti
F. E. Ludwig, M.D.....916 7th St., Port Huron
G. B. Saltonstall, M.D.....Charlevoix
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
H. B. Zemmer, M.D.....311 Clay St., Lapeer

MSMS REPRESENTATIVES: LIAISON COMMITTEE TO MICHIGAN SOCIETY OF NEUROLOGY AND PSYCHIATRY AND MICHIGAN PSYCHOLOGICAL SOCIETY

Z. S. Bohn, M.D., *Chairman*..10 Peterboro St., Detroit 1
P. A. Martin, M.D.....17185 Muirland, Detroit
H. B. Zemmer, M.D.....311 Clay St., Lapeer

COMMITTEE ON VOCATIONAL REHABILITATION

F. C. Swartz, M.D., *Chairman*.....
215 N. Walnut, Lansing
John G. Bielawski, M.D.....
8124 E. Morrow Circle, Detroit 4
John O. Goodsell, M.D.....408 S. Jefferson, Saginaw
W. R. Klunzinger, M.D.....326 W. Ionia St., Lansing
A. S. Narotzky, M.D.....Miracle Circle, Ishpeming
James W. Rae, Jr., M.D.....1313 E. Ann St., Ann Arbor
John M. Schwartz, M.D.....4300 S. Saginaw St., Flint 2

LIAISON COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION

*L. Fernald Foster, M.D., *Chairman*.....
7th Floor, 441 E. Jefferson, Detroit
C. Allen Payne, M.D.....
1840 Wealthy St. S.E., Grand Rapids
W. S. Reveno, M.D.....3001 W. Grand Blvd., Detroit 2
G. W. Slagle, M.D.....203 N. E. Capitol, Battle Creek
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

LIAISON STUDY COMMITTEE ON HOSPITAL STAFF PAYMENTS WITH MICHIGAN MEDICAL SERVICE

Muir Clapper, M.D., *Chairman*.....
6294 McClellan Ave., Detroit 13
B. E. Brush, M.D.....2799 W. Grand Blvd., Detroit 2
O. B. McGillicuddy, M.D.....
1816 Michigan National Tower, Lansing
H. C. Mack, M.D.....3011 W. Grand Blvd., Detroit 2
R. B. Nelson, M.D.....1313 E. Ann St., Ann Arbor
J. R. Pedden, M.D...445 Cherry St. S.E., Grand Rapids 3
Julien Priver, M.D.....6741 W. Outer Dr., Detroit 35
J. W. Rice, M.D.....421 McNeal, Jackson
C. K. Stroup, M.D.....2002 E. Court St., Flint 3

COMMITTEE TO STUDY UTILIZATION OF VACANT TB FACILITIES FOR CHRONIC DISEASES

R. L. Rapport, M.D., *Chairman*..503 S. Saginaw, Flint 3
J. G. Bielawski, M.D.....8124 E. Morrow Circle, Detroit 4
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
J. L. Isbister, M.D.....
Michigan Dept. of Health, Lansing
I. A. LaCore, M.D.....Pontiac State Hospital, Pontiac
A. Hazen Price, M.D.....62 W. Kirby, Detroit
J. M. Sheldon, M.D.....2121 Tuomy Rd., Ann Arbor
G. T. McKean, M.D...1515 David Whitney Bldg., Detroit

LIAISON COMMITTEE WITH STATE BAR OF MICHIGAN

W. M. LeFevre, M.D., *Chairman*.....
289 W. Western, Muskegon
A. A. Humphrey, M.D.....Country Club Dr., Battle Creek
F. B. MacMillan, M.D...1553 Woodward Ave., Detroit 26

MSMS REPRESENTATIVES ON MICHIGAN CANCER CO-ORDINATING COMMITTEE

W. A. Hyland, M.D.....Metz Bldg., Grand Rapids
J. W. Hubly, M.D.....25 W. Michigan Ave., Battle Creek
H. M. Pollard, M.D.....2012 Vinewood Blvd., Ann Arbor
G. S. Wilson, M.D.....3011 W. Grand Blvd., Detroit 2

MSMS REPRESENTATIVE ON SPECIAL ADVISORY COMMITTEE TO MICHIGAN STATE BOARD OF ALCOHOLISM

J. S. Rozan, M.D.....103 N. Washington, Lansing

MSMS CONSULTANTS TO UNIVERSITY OF MICHIGAN STUDY OF HOSPITAL AND MEDICAL ECONOMICS

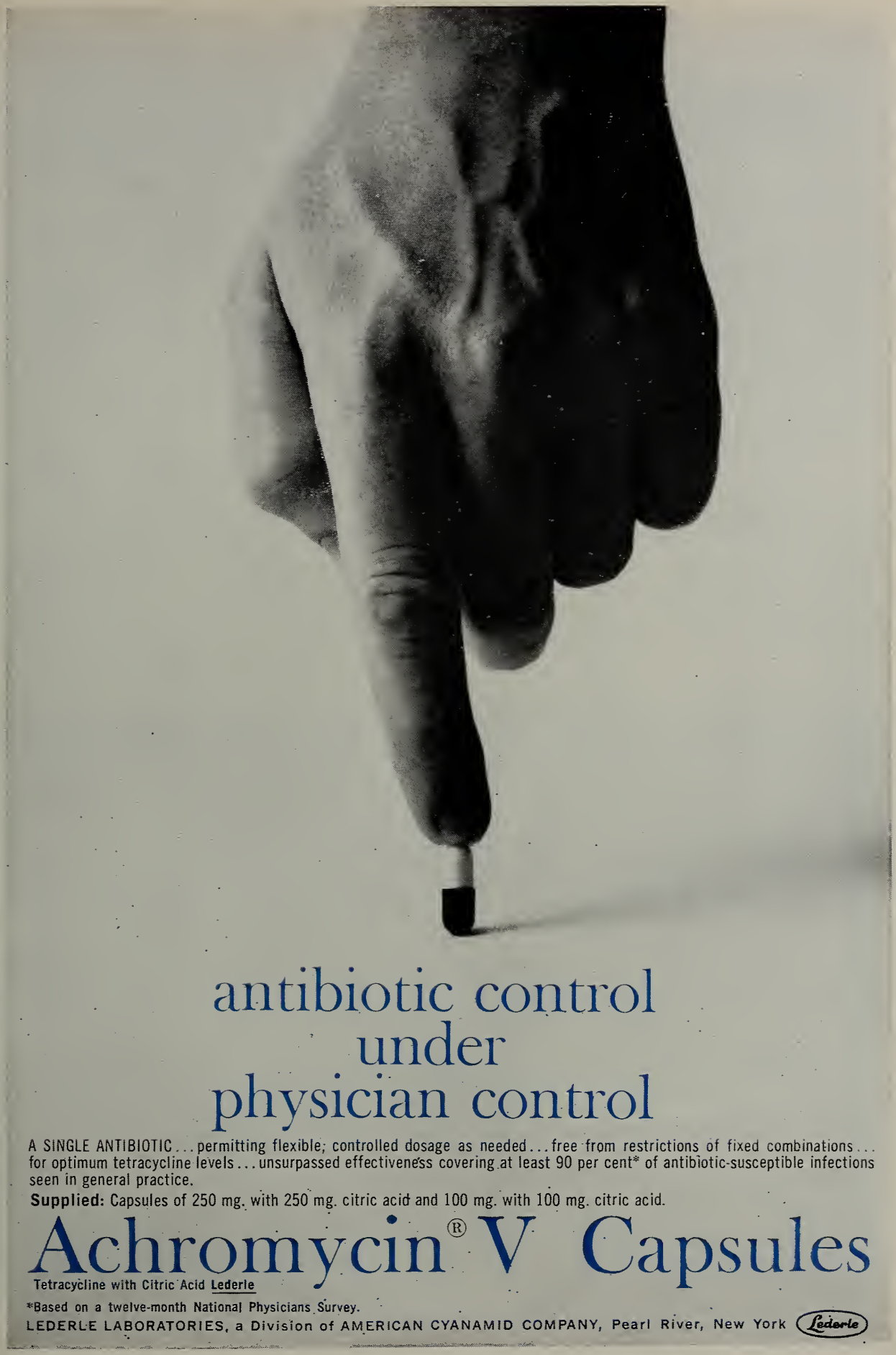
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
B. M. Harris, M.D.....27 S. Prospect, Ypsilanti

MICHIGAN CHAIRMAN OF THE AMERICAN MEDICAL EDUCATION FOUNDATION

F. P. Rhoades, M.D.....5057 Woodward Ave., Detroit

*Deceased

(Continued on Page 864)



A SINGLE ANTIBIOTIC... permitting flexible, controlled dosage as needed... free from restrictions of fixed combinations... for optimum tetracycline levels... unsurpassed effectiveness covering at least 90 per cent* of antibiotic-susceptible infections seen in general practice.

Supplied: Capsules of 250 mg. with 250 mg. citric acid and 100 mg. with 100 mg. citric acid.

Achromycin® V Capsules

Tetracycline with Citric Acid Lederle

*Based on a twelve-month National Physicians Survey.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York Lederle

(Continued from Page 862)

COMMITTEE ON ALCOHOLISM

Walter E. Green, M.D., *Chairman*.....
12851 E. Grand River Ave., Brighton
Richard C. Bates, M.D...1820 E. Michigan Ave., Lansing
T. S. Conover, M.D.....346 S. Saginaw St., Flint 3
Mark E. Heerdt, M.D.....Box 276, Okemos
R. H. Pino, M.D.....1553 Woodward, Detroit 26

COMMITTEE ON STUDY OF INSURANCE PROGRAMS FOR MSMS MEMBERS

M. A. Darling, M.D., *Chairman*..673 Fisher Bldg., Detroit
Mr. Lester P. Dodd, LL.B.....1604 Dime Bldg., Detroit
*L. Fernald Foster, M.D.....
7th Floor, 441 E. Jefferson, Detroit
K. H. Johnson, M.D.....
1116 Michigan National Tower, Lansing
W. S. Jones, M.D.....P.O. Box 76, Menominee
J. D. Miller, M.D.....50 College Ave. S.E., Grand Rapids
T. P. Wickliffe, M.D.....1167 Calumet Ave., Calumet

LIAISON COMMITTEE WITH THE MICHIGAN CHAPTER OF THE HEALTH INSURANCE COUNCIL

G. W. Slagle, M.D., *Chairman*.....
203 N.E. Capitol, Battle Creek
M. A. Darling, M.D.....673 Fisher Bldg., Detroit
M. L. Lichter, M.D.....2900 Oakwood Blvd., Melvindale
B. L. Masters, M.D.....111 W. Dayton, Fremont
D. W. Thorup, M.D.....756 Pipestone St., Benton Harbor

MSMS REPRESENTATIVES: PLANNING COMMITTEE ON PSYCHIATRIC NURSING

I. A. LaCore, M.D.....Pontiac State Hospital, Pontiac
A. Hazen Price, M.D.....62 W. Kirby, Detroit
Mr. Wm. J. Burns.....P.O. Box 539, Lansing

COMMITTEE TO STUDY FEASIBILITY OF GREATER PARTICIPATION IN BLUE SHIELD

B. L. Masters, M.D., *Chairman*..111 W. Dayton, Fremont
C. Allen Payne, M.D.....
1840 Wealthy St. S.E., Grand Rapids
J. W. Rice, M.D.....421 McNeal, Jackson
A. E. Schiller, M.D.....1553 Woodward Ave., Detroit 26
J. M. Wood, M.D.....815 W. Maple, Mt. Pleasant

*Deceased

MICHIGAN CANCER COORDINATING COMMITTEE

H. M. Nelson, M.D., *Chairman*.....
3001 W. Grand Blvd., Detroit 2
Representing S. E. Michigan Division, Inc., American Cancer Society

J. W. Hubly, M.D., *Vice Chairman*.....
25 W. Michigan Ave., Battle Creek
Representing Michigan State Medical Society

Charles F. Arnold....Chief Engineer, Cadillac Motor Div.
2860 Clark, Detroit 10
Representing S. E. Michigan Division, Inc., American Cancer Society

Russell E. Bowers.....903 Genesee Bank Bldg., Flint
Representing Michigan Division, Inc., American Cancer Society

John A. Cowan, M.D.....Mich. Dept. of Health, Lansing
Representing Michigan Department of Health

L. E. Holly, M.D.....876 N. Second St., Muskegon
Representing Michigan Division, Inc., American Cancer Society

W. A. Hyland, M.D.....Metz Bldg., Grand Rapids 2
Representing Michigan State Medical Society

J. E. Lofstrom, M.D.....1420 St. Antoine St., Detroit 26
Representing S. E. Michigan Division, Inc., American Cancer Society

B. E. Luck, D.D.S.....
1512 Michigan Natl. Tower, Lansing
Representing Michigan State Dental Association

C. Allen Payne, M.D.....
1840 Wealthy S.E., Grand Rapids
Representing Michigan Division, Inc., American Cancer Society

H. M. Pollard, M.D.....2012 Vinewood Blvd., Ann Arbor
Representing Michigan State Medical Society

Ralph Ten Have, M.D...1016 Sheldon Rd., Grand Haven
Representing Michigan Health Officers Association

G. S. Wilson, M.D.....3011 W. Grand Blvd., Detroit 2
Representing Michigan State Medical Society

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

Michigan Clinical Institute

Nineteen Honored at Testimonial Luncheon

Michigan doctors of medicine who are presidents of national medical organizations were honored by their MSMS confreres at the annual Testimonial Luncheon held during the Michigan Clinical Institute on March 12 in Detroit.

By tradition, Michigan's Foremost Family Physician of the year is officially recognized at this time by Medicine and the public.

In addition to the tribute paid physicians, the medical profession also presented Distinguished Health Service Awards to eleven prominent citizens who are making contributions to the health and welfare of the State.

Luncheon co-chairmen were Milton A. Darling, M.D., MSMS president-elect, and G. Thomas McKean, M.D., MSMS Councilor, both of Detroit.

Presentations were made by G. B. Saltonstall, M.D., Charlevoix, MSMS president, and L. Fernald Foster, M.D., chairman, MSMS Committee on Awards.

Photos of the honorees and awardees appear on the following pages.

HONOREES

J. Edward Berk, M.D., Detroit
President, American Gastroscopic Society

Fred J. Drolett, M.D., Lansing
Michigan's Foremost Family Physician for 1958

C. Leslie Mitchell, M.D., Detroit
President, American Orthopedic Association

Hermann K. B. Pinkus, M.D., Monroe
President, Society for Investigative Dermatology

John W. Rebuck, M.D., Detroit
President, International Reticulo-Endothelial Society

Lawrence Reynolds, M.D., Detroit
President, American College of Radiology

W. H. Steffensen, M.D., Grand Rapids
President, American Society of Plastic and Reconstructive Surgery

John M. Wellman, M.D., Lansing
President, Frederick A. Coller Surgical Society

AWARDEES

Jay C. Ketchum, Detroit
Senator Frank Andrews, Hillman
Representative Willard I. Bowerman, Jr., Lansing
Adrian Daily Telegram
Kalamazoo Gazette
WJBK-TV, Detroit
WABJ, Adrian
WCBY, Cheboygan
WHLS, Port Huron
WKAR, East Lansing
WMTE, Manistee



Michigan's Foremost Family Physician for 1958 proudly accepts his illuminated scroll from President Saltonstall as Mrs. Drolett and son, L. A. Drolett, M.D., share the proud moment.



With President Saltonstall and Doctor Drolett *(seated right)* are presidents of national medical organizations. Seated left to right are C. Leslie Mitchell, M.D., and J. Edward Berk, M.D. Standing from left are John W. Rebuck, M.D., Hermann K. B. Pinkus, M.D., and W. H. Steffensen, M.D. (Absent due to illness was John M. Wellman, M.D., Lansing.)



Lawrence Reynolds, M.D., Detroit, president of the American College of Radiology, is given his award by MSMS President-elect Milton A. Darling, M.D.





Michigan Senator Frank Andrews, Hillman, was honored by MSMS for his exemplary devotion to the highest quality of medical education and health care.

♦

For his outstanding contribution to Michigan medicine and the public, Mr. Jay C. Ketchum *(right)* for seventeen years the executive vice president and general manager of Michigan Medical Service, accepts his scroll from G. Thomas McKean, M.D.



Managing Director of Detroit's WJBK-TV, Mr. William Michaels, accepts his station's award for co-operation in producing the "Family Doctor" show, an hour-long feature presented during the 1958 Annual Session.



The Kalamazoo Gazette award for cosponsorship of medical forums was accepted by Mr. Deen Malotte, promotion manager.



WCBY, Cheboygan, sent Mr. John King to accept the MSMS award being presented by President Saltonstall.



Station Manager Donald Dean accepted the award for radio station WABJ, Adrian.



Radio station WKAR, East Lansing, is represented by Mr. Larry Frymire, station manager.



Representing radio station WMTE, Manistee, was Mr. James R. Sumbler, the broadcasting company's president.

PR REPORT

Public Relations Boosted

Record Four Thousand Service Club Members Hear M. D. Speakers During MCI

More people heard more M.D. speakers at more luncheon clubs during the Michigan Clinical Institute than ever before during any state medical meeting.

Estimates are that during this single week more than 4,000 Detroit area businessmen and civic leaders got the word on the scientific and economic sides of medicine direct from doctors of medicine.

A record total of forty-three service clubs in the Detroit metropolitan area hosted as many physician speakers-of-the-day.

The speaker program was instituted by the MSMS PR Committee and implemented by the public relations staff.

Commenting on the large number of club invitations this year, R. Wallace Teed, M.D., PR Committee Chairman, said, "We have long believed that one of the finest ways of telling medicine's story is through personal contact. The speaker's program of the MCI has the virtue of this personal touch yet reaches a large number of influential people who want to know of the advances and goals of modern Michigan medicine. We are deeply indebted to the many physicians who volunteered to talk to this important audience."

Dr. Teed added that present plans call for a similar program to be arranged in connection with the 1960 Michigan Clinical Institute to be held in Detroit, March 8-9-10-11.



James E. Lofstrom, M.D., Detroit, has a pre-prandial chat with Exchange Club President, G. W. Bartlum.

MCI SERVICE CLUB SPEAKERS—1959

North Detroit Kiwanis Club, Francis S. Gerbasi, M.D.
Harper Woods Kiwanis Club, C. J. Hipps, M.D., Detroit
U & I Club, R. H. Pino, M.D., Detroit
B'nai B'rith, R. A. Braun, M.D., Detroit
Birmingham Kiwanis Club, Everette Gustafson, M.D., Pontiac
Warrendale Kiwanis Club, P. G. S. Beckett, M.D., Detroit
Centerline Rotary Club, Everette Gustafson, M.D., Pontiac
Southwest Kiwanis Club, Francis S. Gerbasi, M.D., Detroit
Central Kiwanis Club, J. C. Gemeroy, M.D., Detroit
Garden City Lions, Robert Goldsmith, M.D., Ann Arbor
Dearborn Lions, Wm. A. Willoughby, M.D., Detroit
Ludington Lions, W. F. Sutter, M.D., Ludington
Tabernacle Neighborhood Nursery Parent Association, David Freides, Ph.D., Detroit
St. Clair Lions, J. F. Gerrits, M.D., St. Clair
Wyandotte Kiwanis Club, David Barsky, M.D.
Trenton Kiwanis Club, L. A. Comstock, M.D., Trenton
Kiwanis No. 1 Club, W. M. LeFevre, M.D., Muskegon
Detroit Northeastern Kiwanis, G. E. Millard, M.D.
Grosse Pointe Kiwanis, C. W. Lepard, M.D., Detroit
Civitan Club, R. H. Pino, M.D., Detroit
Ferndale Kiwanis Club, Everette Gustafson, M.D., Pontiac
Downtown Rotary Club, P. L. Cusick, M.D., Detroit
Port Huron Kiwanis, N. G. Douvas, M.D., Port Huron
Wayne Kiwanis Club, A. R. Parker, M.D., Wayne
Berkley Rotary Club, W. A. Willoughby, M.D., Detroit
Dearborn Outer Drive Kiwanis Club, W. A. Willoughby, M.D., Detroit
Detroit Exchange Club, J. E. Lofstrom, M.D., Detroit
Lions Club of Detroit, A. D. Ruedemann, Sr., M.D.
Division No. 4 Kiwanis Club, Maurice B. Wehr, M.D. Detroit
Industrial Center Kiwanis Club, Gerald Wilson, M.D., Detroit
Art Center Kiwanis Club, J. S. Ward, M.D., Detroit
Denby Kiwanis Club, R. W. Howell, M.D., Detroit
Garden City Rotary Club, L. P. Haefele, M.D.
Excaliber Club, P. L. Cusick, M.D., Detroit
Roseville Kiwanis Club, H. A. Dunlap, M.D., Detroit
Highland Park Rotary Club, H. C. Saltzstein, M.D. Detroit
Warren Kiwanis Club, Everette Gustafson, M.D., Pontiac
Roseville Rotary Club, H. L. Weston, M.D., Detroit
Retired Men's Fellowship, A. Hazen Price, M.D., Detroit
Northwest Detroit Kiwanis Club, R. A. Braun, M.D., Detroit
Mt. Clemens Kiwanis Club, C. P. Kuhn, M.D., Detroit
Warrendale Kiwanis Club, P. G. S. Beckett, M.D., Detroit
Arenac Eastern Lions Club, J. R. Gehman, M.D., Standish



Paul L. Cusick, M.D., Detroit, who headed the operating team which performed the televised cataract extraction, is shown *(second from left)* at one of the two luncheon clubs he addressed.

Service Clubs Hear M. D. Speakers—Continued



A. D. Ruedemann, Sr., M.D. *(center)* chats with hosts before his address to the Lions Club meeting at the Statler-Hilton Hotel.



Kiwanis No. 1, one of Detroit's largest clubs, heard Wm. M. LeFevre, M.D. *(right)*, Muskegon, MSMS Councilor.



DID YOU KNOW

OS-CAL

is better assimilated because:

* **OS-CAL** *contains every known mineral as natural constituents of oyster shell.*
* **OS-CAL** *is the original phosphorus-free calcium tablet.*
* **OS-CAL** *is the richest of all sources of calcium.*
* *In elemental calcium, 3 Os-Cal Tablets equal:*
  5 dicalcium phosphate caps - 10 gr.
  9 calcium lactate tablets - 10 gr.
  16 calcium gluconate tablets -7½ gr.

Individualize Your Patient!

OS-CAL

Oyster Shell Calcium
Natural Trace Minerals
Vitamin D
DOSAGE: 1 tab. t.i.d.

OS-VIM

Oyster Shell Calcium
B-Complex
Vitamins A-D-C-E
Natural Trace Minerals
Ferrous Sulfate
DOSAGE: 1 tab. t.i.d.

OS-*feo*-CAL

Therapeutic Iron
Oyster Shell Calcium
Vitamin D
Natural Trace Minerals
DOSAGE: 1 tab. t.i.d.

OS-*feo*-VIM

Therapeutic Iron
Oyster Shell Calcium
Vitamins A-D-C-B6 and K
Natural Trace Minerals
DOSAGE: 1 tab. daily.

note low dosages!

MARION LABORATORIES, Inc.

2910 Grand Ave. • Kansas City, Missouri

*HARDY, J. A.: *Obstet. & Gynec.* (Nov., 1956)

83% MAJOR (Grade I and II) IMPROVEMENT*

in Rheumatoid Arthritis

*Using combined drug therapy with **PLAQUENIL**® or Aralen® as maintenance therapy. With Plaquenil or Aralen alone 62% grade I and II improvement. (Scherbel, A.L.; Harrison, J.W., and Atdjian, Martin: Cleveland Clin. Quart. 25:95, April, 1958. Report on 805 patients with rheumatoid arthritis or related diseases.)

Reasons for Failure:

1. Treatment discontinued too soon (percentage of patients improved increases substantially after first six months).
2. Patients in relapse after prolonged steroid therapy are resistant to Plaquenil or Aralen treatment for several months.

Plaquenil sulfate is supplied in tablets of 200 mg., bottles of 100.

Dose: Initial — 400 to 600 mg. (2 or 3 tablets) daily.
Maintenance — 200 to 400 mg. (1 or 2 tablets) daily.

Write for Booklet.

len (brand of chloroquine) and Plaquenil
and of hydroxychloroquine), trademarks reg. U.S. Pat. Off.

Winthrop LABORATORIES
New York 18, N. Y.

WHAT THEY SAID ABOUT THE 1959 MICHIGAN CLINICAL INSTITUTE

I. S. Ravdin, M.D., Hospital of the University of Pennsylvania (guest essayist): "It was a great pleasure for me to be able to attend the Michigan Clinical Institute and I am only sorry that I could not stay longer."

* * *

Wendell G. Scott, M.D., Scott Radiological Group, St. Louis (guest essayist): "First of all, I want to tell you how much I enjoyed the meeting of the Michigan Clinical Institute. You certainly have a well run meeting. Dr. Howard Doub was most gracious in his hospitality and was the epitomy of the famed Michigan ubiquitous host. Please express my pleasure and appreciation to the members of your organization for the opportunity of participating in your meeting."

* * *

J. Vogel, Captain, M.C., U. S. Navy, New London, Conn. (guest essayist): "I would like to take this opportunity to tell you how very much I enjoyed being with your group, and to express my admiration for the outstanding manner in which the many details incident to these meetings were handled. Dr. W. S. Reveno and his program committee, and so many others did a magnificent job and are deserving of much credit. It was a pleasure to have participated and I trust my small share was of some value to the program."

* * *

Leo A. Hoegh, Executive Office of the President, Washington, D. C. (guest essayist): "I appreciate very much receiving the nice comments relative to my recent appearance on the program of the Michigan Clinical Institute. It was a fine audience and I enjoyed talking to them."

* * *

A. C. McGuinness, M.D., U. S. Department of Health, Education and Welfare, Washington, D. C. (guest essayist): "I much enjoyed the privilege of presenting my views before the 1959 Michigan Clinical Institute."

* * *

W. L. Estes, Jr., M.D., Bethlehem, Pennsylvania (guest essayist): "It was a great pleasure to participate in the program of the Michigan Clinical Institute. It is always a pleasant project to visit in Detroit as the men are so hospitable and do such a superb job of taking care of the visiting speakers."

* * *

James McGarrigle, Staff Photographer, *Detroit Times:* "I would like to thank the staff of the Michigan State Medical Society for the wonderful co-operation we photographers received the night of the eye operation at Providence Hospital. We of the press know the importance of this great piece of surgery and its miraculous gift of prolonged sight to the patient. I can only say 'amazing.' I'm glad that I was there. It was gratifying to know that you liked the photographic coverage but may I remind you that this was only possible through the efficient public relations of all those involved. I look forward with pleasure to any future assignments with the Michigan State Medical Society."

* * *

Francis Boyer, Chairman of the Board, Smith Kline & French Laboratories: "I was pleased to hear that the television reception, both on the screen and by our medical and lay audiences was good at the Michigan Clinical Institute. Our crew for these color television activities spoke of the fine co-operation they received from the participating physicians—a major factor in producing a successful series of programs. I hope that SKF and the Michigan Clinical Institute will soon have an opportunity to work together again."

* * *

Richard G. Pearce, D.V.M., Royal Oak, official, Southeastern Michigan Veterinary Medical Association: "I want to thank the Medical Association for the invitation extended to us during the recent Michigan Clinical Institute. As you probably know there are several of our members who availed themselves of this fine meeting and each derived something of benefit from it. This type of interprofessional communication is highly desirable and is the type of relationship that benefits our mutual professions and in the long run benefits the public. We hope to be able to return to you an invitation to our state veterinary meeting in June."

* * *

Carroll Cutler, Gray Audograph Corporation (exhibitor): "Let me congratulate you on an extremely well run meeting. I have attended medical meetings all over the country, and believe me I have yet to see one as capably and efficiently handled as the past Michigan Clinical Institute. Many best wishes for many more successful meetings such as the last one.

* * *

Charles M. Powell, Jr., American Cyanamid Company (exhibitor): "We enjoyed attending the Michigan Clinical this year, as every year. Our booth location this year was so good that our men attending thought we ought to obtain this identical location in 1960."

* * *

Harvey C. Hallum, Mead Johnson & Company (exhibitor): "I am anxious for you to know how much we appreciated being permitted to participate in your conference. Also, I want to compliment your committee for the splendid program which they developed."

Improved health standards have been a major stabilizing influence on marriage and the family in recent years, according to *Health Information Foundation.* Because of declining death rates, the average parent today has a much better chance of living to see his children grow up; fewer children die; orphanhood has largely disappeared as a social problem.

The results of administering Delalutin before the 12th week of gestation to 82 women with habitual abortion were reported recently by Reifenstein.[1] Every patient had experienced at least three consecutive abortions immediately preceding the treated pregnancy. More than 68% of these women were delivered successfully and uneventfully following Delalutin therapy.

Boschann,[2] in a study of pregnancies with threatened abortion, found that:

37% of 73 pregnancies were carried to term without progestational therapy
64% of 42 pregnancies were salvaged by progesterone
83% of 73 pregnancies were salvaged by Delalutin

Eichner,[3] found that with Delalutin fetal salvage of infants below term weight (1000 to 2000 gm.) was significantly improved.
108 (76%) of 142 babies of this birth weight survived without progestational therapy.
16 (100%) of 16 babies of this birth weight survived with Delalutin therapy.
A comparison study was made of a group of repeated aborters treated with Delalutin, and a group with a similar history treated with bed rest and sedation.[4] Pregnancy salvage with Delalutin was twice that of the control group. Delalutin was found to be "highly active," well-tolerated and long-acting.

Delalutin offers these advantages over other progestational agents:

- longer-acting and more sustained therapy
- more effective in producing and maintaining a completely matured secretory endometrium
- no androgenic effect
- more concentrated solution requires injection of less vehicle
- unusually well-tolerated, even in large doses
- requires fewer injections
- low viscosity makes administration easier

DELALUTIN is also potent and safe therapy for: threatened abortion; postpartum after-pains; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated with genital malignancy; infertility with inadequate corpus luteum function; production of secretory endometrium and desquamation during estrogen therapy; premenstrual tension; dysmenorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

Administration and Dosage: Because of its low viscosity, Delalutin may be administered with a small gauge needle (deep intragluteal injection). Complete information on administration and dosage is supplied in the package insert.

Supply: Delalutin is available in vials of 2 and 10 cc., each cc. containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

References: 1. Reifenstein, E. C., Jr.: *Annals N. Y. Acad. Sci.* 71:762 (July 30) 1958. 2. Boschann, H-W.: *ibid.*, p. 727. 3. Eichner, E.: *ibid.*, p. 787. 4. Hodgkinson, C. P.; Igna, E. J., and Bukeavich, A. P.: *Am. J. Obst. and Gyn.* 76:279, 1958.

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Delalutin'® is a Squibb trademark

Rural Health Conference Hits Record

A capacity crowd attended the Twelfth Annual Michigan Rural Health Conference at Kellogg Center in East Lansing on April 8 and 9. The Conference theme was "Safe Roads to Health."



Ralph H. Pino, M.D., Detroit, receives scroll for his activity in interesting young people in embarking on medical or allied health careers. The award was presented during the Michigan Rural Health Conference by Hugh W. Brenneman, MHC Secretary.

More than 60 recognized experts covered such topics as milk inspection, danger of excessive use of antibiotics, animal diseases, community and school health improvement programs, highway safety, and many other health and safety subjects.

A new feature of this year's conference was the Health Careers Day Program. More than forty public and parochial high schools, from very small to large metropolitan cities throughout Michigan, sent student representatives and counselors to hear stimulating talks. Outstanding speakers told the young registrants about the more than fifty health careers where there is a great need and excellent opportunity for more students to enter their professions. More than 300 students took part in this special conference.

A highlight of the two-day meeting was the presentation of awards to two Michigan M.D.'s who were recognized for their health activities.

At the Wednesday luncheon, Ralph H. Pino, M.D., Detroit, was presented with a scroll by MHC Secretary Hugh W. Brenneman. Dr. Pino was recognized "for his dedicated efforts over a number of years in developing a greater knowledge and interest among students in a medical or health career and for his outstanding leadership in the establishment of the Michigan Health Council Health Careers Committee in 1958 which he serves so ably as chairman."

John D. Monroe, M.D., Health Director in Oakland County, received the annual Public Health Award at a separate ceremony.

Announcement was made at the banquet that the 15th National Conference on Rural Health, sponsored by the American Medical Association, will be held in Grand Rapids on February 25-27, 1960.

Through the special cooperation of the Michigan Foundation for Medical and Health Education, the Michigan Health Council is planning several regional health conferences prior to the National Conference, in order to stimulate the interest of Michigan residents in attending the Conference in Grand Rapids. The regional conferences also will feature programs on rural health, community and school health, and will have special sessions on health careers for high school and college students located in the areas where the regional conferences are to be held.

POPULATION PATTERN CHANGING?

Is our population pattern changing? Four states in the country, Nevada, Arizona, California and Florida, are expected to have the largest population growth between 1955 and 1970, according to the current edition of *Patterns of Disease,* prepared by Parke, Davis & Company.

Nevada's population is expected to rise 67 per cent, Arizona's 66 per cent, California's 54 per cent and Florida's 53 per cent.

Three states are losing population: Mississippi, Oklahoma and Arkansas.

Regionally, the most rapid population increases are in the Pacific States, followed by the Mountain and the five East North Central States.

and
blood pressure
is controlled
safely and
effectively

The hypertensive under treatment is frequently burdened with side effects of therapy including states of depression, fatigue, and lethargy. He finds little joy left in his life and laughter is almost a forgotten experience.

With RAUTENSIN and RAUVERA, two unique and dependable antihypertensive agents, patients feel better, have a brighter outlook and blood pressure is safely reduced.

in mild hypertension

RAUTENSIN provides smoother antihypertensive action with no sudden rebounds or abrupt declines, and can be given over long periods of time without impairing mental alertness, producing excessive lethargy or drowsiness. When tachycardia is present, RAUTENSIN slows heart rate 10 to 15 per cent. RAUTENSIN is less likely to cause mental depression.[1] The apprehensive hypertensive is calmed, yet side actions are " . . . either completely absent or so mild as to be inconsequential."[2]

RAUTENSIN®

each tablet contains 2 mg. of the purified alseroxylon complex of Rauwolfia serpentina

Dosage: For the first 20 to 30 days, 2 tablets (4 mg.) once daily, at bedtime. Thereafter, a maintenance dose of 1 tablet (2 mg.) daily will suffice for most patients.

in moderate to severe hypertension

RAUVERA produces smooth and steady antihypertensive action which persists over the entire twenty-four hours without peaks and valleys . . . no "saw tooth" effect. Patients show a marked subjective as well as objective improvement with a significant drop in blood pressure, yet with a very low incidence of side effects.[3] Abrupt rise in blood pressure does not occur even when therapy is interrupted.[4] Tolerance does not develop on prolonged administration. Sensitization reactions or postural hypotension do not occur. Headaches, fatigue, insomnia and "heart consciousness" rapidly disappear, leaving the patient feeling well and asymptomatic.

RAUVERA®

each tablet contains 1 mg. of purified alseroxylon complex of Rauwolfia serpentina and 3 mg. alkavervir (Veratrum viride fraction)

Dosage: One tablet 3 or 4 times daily, ideally after meals, at intervals of not less than 4 hours.

1. Moyer, J. H.; Dennis, E., and Ford, R.: Arch. Int. Med. *96*:530, 1955.
2. Terman, L. A.: Illinois M. J. *3*:67, 1957.
3. La Barbera, J. F: M. Rec. & Ann. *50*:242, 1956.
4. Bendig, A.: New York J. Med. *66*:2523, 1956.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

Cancer Comment

This column is sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan

THE IMPORTANCE OF THE SIGMOIDOSCOPIC EXAMINATION

We are all aware of the multiple benign processes involving the rectal area. Beyond that, within the United States there are approximately 35,000 deaths annually from carcinoma of the colon and rectum. This, in addition to the frequent presence of so-called pre-cancerous lesions, makes the examination not only worthwhile, but an integral part of any complete and thorough physical examination.

Indications for a sigmoidoscopic examination are (1) the completion of a thorough health appraisal examination, (2) awareness of blood in the stool, (3) any type of rectal pain, (4) any possible mass in the rectal area, (5) any rectal disturbance or a pruritus, and (6) any possible change in bowel habits.

Procedure.—It is highly desirable to feel first rather than to look. Do a careful and cautious digital examination preceding the sigmoidoscopic procedure. Seventy-five per cent of the malignancies of the lower portion of the bowel may be reached by the examining finger. Preparation for a sigmoidoscopic procedure should not be made a particular routine. Seventy-five per cent of all individuals do not need any preparation whatsoever and, specifically, patients with chronic ulcerative colitis should not have any preparation, since the undisturbed rectal mucosa should be observed, and preparation may well remove the clue. If an enema is necessary, the sodium phosphate disposable units in plastic containers are a tremendous boon to simplifying this procedure. Saline, or even tap water, may be used.

Position for the sigmoidoscopic examination: The tilt table, and there are some beautiful ones on the market, are a tremendous aid to a satisfactory sigmoidoscopic procedure. They permit greater relaxation and a more comfortable position for the patient and provide superiority of ease with which the instrument can be inserted by the physician. The left lateral position is good for ill or elderly patients. Short of the tilt table, the knee-chest position still remains the most desirable one. Again, it is desirable to put lubricant around the anal area rather than to lubricate the entire scope before inserting it.

Utilizing the left index finger for preparation it is possible to reach to approximately ten cms. Many things may be felt by this procedure and it serves to dilate the rectal sphincter. The instruments to be employed should include the physician's own personal preference for a sigmoidoscopic, a proctoscope, suction tip, biopsy bottle and biopsy forceps. The total layout set for a sigmoidoscopic examination should not cost over $75.00.

The art of a sigmoidoscopic examination includes a quick, rapid procedure done without air pressure and largely with direct observation. In other words, insert the scope under direct vision and look as the scope is withdrawn. If there are any blind spots, withdraw the scope and start again. In approximately twenty-five per cent of individuals, it is not possible to pass the recto-sigmoid junction.

Remember the rectal ampulla is the responsibility of the sigmoidoscopist and not the responsibility of the radiologist.

—H. M. Pollard, M.D.

Experience has shown that malignant degeneration does occur in benign gastric polyps. In one hospital, 5 of 32 patients were found to have cancer in association with their gastric polyps.

* * *

The diagnosis of gastric polyps depends on both roentgenologic and gastroscopic examinations.

* * *

Cytological examination of discharges from the nipple seems destined to become an important adjuvant to the clinical diagnosis of certain breast lesions and requires close co-operation between the cytologist and clinicians in charge of the patient.

* * *

The National Cancer Institute, Pathology Section, has set up a Geographical Pathology unit to study the distribution of cancer in certain ethnic groups and countries. Its first study will be that of the extremely low rate of cancer of the cervix in Jewish women. Hospitals in Chicago, New York and Israel, and possibly others in Moslem Lebanon will co-operate.

* * *

People who refuse treatment for early cancer harbor the illusion that by waiting their cancer will cure itself.

* * *

Physicians giving inadequate cancer therapy merely waste their own time and the patient's opportunity for a cure.

* * *

When treating sarcoma of soft parts never "shell out" the tumor, but extend the incision well beyond the pseudocapsule.

* * *

In the past, pneumonia in elderly men was a common cause of death. Many of these so-called pneumonias were pneumonitis secondary to bronchiogenic cancer. Today, antibiotic therapy relieves the pneumonitis and the patient does not die from the inflammatory complications of lung cancer. Also, many cancers of the lung have had a previous diagnosis of virus pneumonia.

* * *

On the average, about ten months elapse after first symptoms of lung cancer and competent treatment. About half of this lost time is due to incorrect diagnosis by the first physician consulted. The other half is due to the patient's negligence.



...x-tra value x-ray supplies

there's no delay the G.E. way

Dealing with General Electric is like owning your own complete warehouse of x-ray supplies. You get fast action on every order from any of 68 strategically located factory-operated offices.

No need for "scatter-buying" from several different sources. Get everything you need by "shopping" the complete selection of products listed in the G-E X-Ray Supply and Accessory Catalog.

For complete details contact your G-E X-Ray representative listed below.



EXAMPLE:

Continuous cash savings — with G-E SUPERMIX® film processing chemicals, today's *lowest-priced* quality solutions. Convenience packaged, too, in tough, knock-about plastic containers—developer, fixer, refresher and fixer-neutralizer in graduated polyethylene bottles that mix a gallon. (And so *lightweight* they're a joy to handle.)

Progress Is Our Most Important Product

GENERAL ELECTRIC

DIRECT FACTORY BRANCHES

DETROIT
18801 W. 7 Mile Rd. • KEnwood 7-6300

DULUTH
928 E. 2nd St. • RAndolph 4-8648

RESIDENT REPRESENTATIVES

FLINT
E. F. PATTON, 1202 Milbourne • FLint 5-0842

GREEN BAY
J. J. VICTOR, 1242 S. Quincy St. • HEmlock 5-5742

JACKSON
E. J. RHINEHART, 231 N. Wisner St. • STate 4-1986

EAST GRAND RAPIDS
J. E. TIPPING, 1044 Keneberry Way, S.E. • GLendale 2-5283

You and Your Business

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of April 1, 1959

- **Recommendations of AMA Commission on Medical Care Plans.**—Presented were the opinions of component societies on the two questions in the AMA Commission's report: 1. Is free choice of physician essential to good medical care without qualification?; 2. What will be your attitude to physician participation in systems of medical care that restrict free choice?

  The whole report was discussed by AMA Delegates' Chairman Wm. A. Hyland, M.D., Grand Rapids, who pointed out that the AMA Committee had studied these questions for two years, that the AMA House of Delegates and Board of Trustees must assume responsibility for adopting or disapproving the report, and that the delegates would consider this in Atlantic City in June, 1959. The Executive Committee of The Council took action to notify the AMA that it is in sympathy with the report of the Commission, as a whole.

- **Veterans Administration Home Town Medical Care Program.**—Further negotiations on this program definitely indicates that the Veterans Administration desires to run this program direct and without intermediaries (Michigan Medical Service as agent of the medical profession of Michigan). The negotiators for the State Society were instructed to take a firm stand in negotiations with the Veterans Administration.

- **MSMS Group Life Plan**—President-Elect Milton A. Darling, M.D., Detroit, reported that the MSMS Plan had been approved by the State Insurance Commissioner and that to date, a total of 907 members had requested coverage; certificates will be mailed this month.

- **The Executive Committee of The Council** referred to the Committee on Constitution and Bylaws a recommendation that Chapter 4, Section 4 of Bylaws be changed to include the word "death" as well as "resignation" as a reason for refund of State dues for the unexpired portion of the year.

- **Governor's Citizen Mental Health Inquiry Board.**—Grover C. Penberthy, M.D., Detroit, a member of this Board, requested approval of certain doctors of medicine to visit State mental hospitals in their respective areas and study methods used in reporting anything unusual that might occur such as accidents and injuries either self inflicted, caused by an inmate or by any other individual. The Executive Committee of The Council recommended the following doctors: Vernon C. Abbott, M.D., Pontiac; Kneale M. Brownson, M.D., Traverse City; Darrell A. Campbell, M.D., Ann Arbor; James H. Fyvie, M.D., Manistique; Harold J. Meier, M.D., Coldwater; Matthew Peelen, M.D., Kalamazoo; Robert E. Rice, M.D., Greenville; and Harry B. Zemmer, M.D., Lapeer.

- **President G. B. Saltonstall, M.D.,** was authorized to represent the Michigan State Medical Society at the annual meeting of the Medical Society of the State of Wisconsin in Milwaukee, May 5-6; President-Elect M. A. Darling, M.D., was authorized to represent MSMS at the dedication of the new State Bar of Michigan building, May 1, in Lansing; Doctor Darling also will represent MSMS at the Michigan State Rural Health Conference, East Lansing, April 9, and will present a talk to the Senior Medical Students at the University of Michigan, April 15 on "The Roll of the Michigan State Medical Society."

- **The following official representatives** of the Michigan State Medical Society will act as ubiquitous hosts to six of the Annual Session public speakers in Grand Rapids, September 29, 30-October 1, 2, 1959: Clarence F. Webb, M.D., Grand Rapids, for guest speaker Isador Dyer, M.D., of New Orleans; R. I. Seime, M.D., Grand Rapids, for guest speaker Ivan H. Smith, M.D., of London, Ontario; R. H. Gilbert, M.D., Grand Rapids, for guest speaker Lorand V. Johnson, M.D., Cleveland; W. T. Cruse, Jr., M.D., Grand Rapids, for guest speaker Harvey Blank, M.D., Miami; J. C. Montgomery, M.D., Grand Rapids, for guest speaker James G. Hughes, M.D., Memphis; C. Allen Payne, M.D., Grand Rapids, for guest speaker F. G. Germuth, Jr., M.D., of Charlotte, N. C.

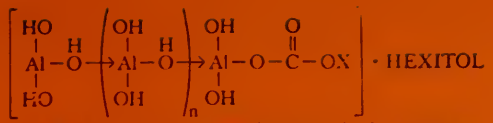
  Additional ubiquitous hosts will be appointed to officially represent the Michigan State Medical Society in entertaining all the guest essayists.

- **Personnel of the Committee on Arrangements** for the 1960 Michigan Clinical Institute was selected, with R. J. Hubbell, M.D., Kalamazoo, as General Chairman and Wm. S. Reveno, M.D., Detroit, as Chairman of Program and Television Committees. Press Committee was appointed: A. B. Gwinn, M.D., Hastings, Chairman; H. F. Dibble, M.D., Detroit; R. W. Shook, M.D., Kalamazoo; Milton R. Weed, M.D., Detroit; and C. L. Weston, M.D., Owosso.

- **Referred to the Committee on Constitution and Bylaws** was the AMA recommendation that *active* membership be provided for M.Ds. in the Armed Forces, Public Health Service, and Vet-

(Continued on Page 894)

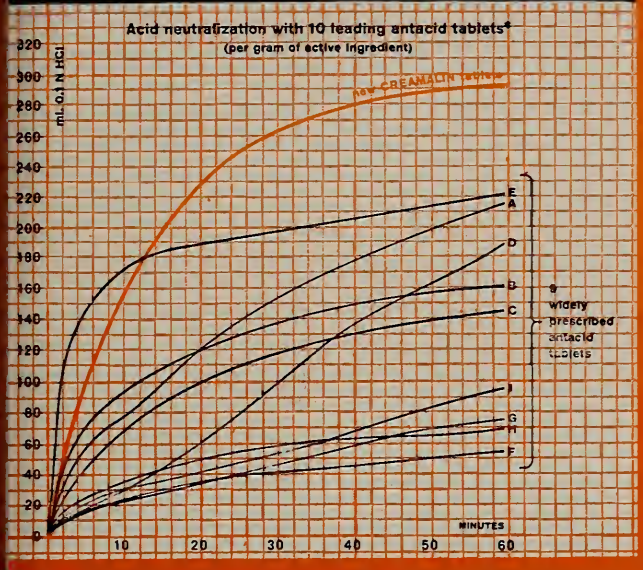
a new high in effectiveness and palatability



n is at least 1 and averages less than 6. X is a cation.

CREAMALIN neutralizes *more* acid *faster*

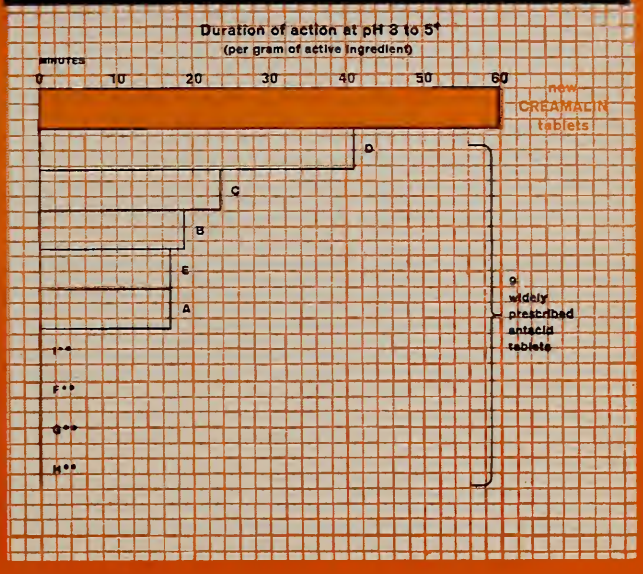
Quicker Relief • Greater Relief



Tablets were powdered and suspended in distilled water in a constant temperature container (37° C) equipped with mechanical stirrer and pH electrodes. Hydrochloric acid was added as needed to maintain pH at 3.5. Volume of acid required was recorded at frequent intervals for one hour

CREAMALIN neutralizes *more* acid *longer*

More Lasting Relief



*Hinkel, E. T., Jr., Fisher, M. P. and Tainter, M. L.: A new highly reactive aluminum hydroxide complex for gastric hyperacidity. To be published.
**ph stayed below 3.





No chalky taste. New CREAMALIN tablets are not chalky, gritty, rough or dry. They are highly palatable, soft, smooth, easy to chew, mint flavored.

• NO ACID REBOUND • NO CONSTIPATION
• NO SYSTEMIC EFFECT

Adult Dosage: Gastric hyperacidity: 2 to 4 tablets as necessary. Peptic ulcer or gastritis: 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed with water or milk, or allowed to dissolve in the mouth.

Supplied: Bottles of 50, 100, 200 and 1000.

Winthrop LABORATORIES • NEW YORK 18, NEW YORK

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 890)

erans Administration, in order that these doctors may be qualified for *active* membership in the AMA.

- **Official MSMS representatives** to the Upper Penninsula Medical Society meeting, June 19-20, 1959, were authorized.

- **The annual report of the State Medical Journal Advertising Bureau,** which acts as agent for JMSMS in procurement of advertising, was reviewed by Editor Wilfrid Haughey, M.D., Battle Creek, and received by the Executive Committee.

- **Public Relations Counsel's report** included report on resolution from Bay-Arenac-Iosco County Medical Society favoring state sales tax; correspondence from Congressman Charles E. Chamberlain reporting that his recent survey of the sixth Michigan district voters disclosed that 52 per cent opposed, 36 per cent favored, and 12 per cent were uncertain re extension of social security in the area of medical care; progress report on Michigan Association of the Professions indicated 779 members as of April 1, 1959.

- **J. J. Lightbody, M.D.,** Detroit, reported preliminary estimates on cost of enlarging MSMS Public Relations office in new David Whitney House (Wayne County Medical Society Headquarters) Detroit.

- **Committee reports**—The following were considered: 1. Diabetes Committee, meeting of March 10; 2. Medical Care Insurance Committee, meeting of March 18; 3. Legislative Committee, March 19.

- **Central Cancer Registry.**—Announcement was made that a new central cancer registry is being developed by the Michigan Cancer Coordinating Committee—the details to be presented to the Executive Committee of The Council at its May 20 meeting.

- **Appointments.**—(a) To Michigan Hospital Medical Advisory Committee: Frank J. Busch, M.D., Saginaw, and Ralph W. Shook, M.D., Kalamazoo. (b) To Michigan Joint Council to Improve Health Care of the Aged (to serve with representatives of the Michigan Hospital Association, Michigan State Dental Association, and the Michigan Nursing Home Association): Frederick C. Swartz, M.D., Lansing, Chairman; A. H. Hirschfeld, M.D., Detroit, and A. Hazen Price, M.D., Detroit. (c) To National Leadership Training Institute White House Conference on Aging, Ann Arbor, June 24-26: Frederick C. Swartz, M.D., Lansing; A. H. Hirschfeld, M.D., Detroit; A. Hazen Price, M.D., Detroit, and C. Howard Ross, M.D., Ann Arbor

- **Changes.**—(a) H. B. Latourette, M.D., Ann Arbor, resigned from Committee on National Defense as he is moving to Iowa. Thanks were extended to Doctor Latourette for his splendid past service, with best wishes for success in his new work. (b) Resolution to the late N. A. Fleishmann, M.D., President of Muskegon County Medical Society at the time of his death, was adopted and spread upon the Executive Committee minutes.

- **Michigan Health Commissioner A. E. Heustis, M.D.,** reported on tuberculosis case findings procedure in northern Michigan; increases in diagnostic laboratory tests; bacteriophage action; poliomyelitis progress report; hospital certification and maternity hospital licensing; and x-ray protection.

- **Ground Breaking Ceremony.**—The Executive Committee called a special meeting at the new site of the State Society (Saginaw Street and Abbott Road in East Lansing) for 4:30 p.m. this date, as part of the ground breaking ceremony.

MEDICAL MEETINGS AND CLINIC DAYS

1959		
June 19-20	Upper Peninsula Medical Society	Gateway Hotel Land O'Lakes, Wisc.
June 25	Keyport Trauma Day—American College of Surgeons	Hidden Valley Lodge Gaylord
July 30-31	Coller-Penberthy Clinic	Traverse City
Sept.29-30 Oct. 1-2	Michigan State Medical Society Annual Session	Pantlind Hotel Grand Rapids

it's as easy as 1, 2, 3 to use

HYDRODIURIL™

(HYDROCHLOROTHIAZIDE)

1 **Initiate therapy with HYDRODIURIL:** one 25 mg. tablet or one 50 mg. tablet once or twice a day. HYDRODIURIL by itself often causes an adequate drop in blood pressure over a period of two to three weeks. This may be all the therapy some patients require.

2 **Add or adjust other agents as required:** HYDRODIURIL enhances the activity of all commonly-used antihypertensive agents; thus, the dosage of other medication (rauwolfia, reserpine, hydralazine, veratrum) should be initiated or adjusted as indicated by patient condition. If a ganglion-blocking agent is contemplated or being used, usual dosage must be reduced by 50 per cent.

3 **Adjust dosage of all medication:** the patient must be frequently observed and careful adjustment of all agents should be made to establish optimal maintenance dosage.

Supplied: 25 mg. and 50 mg. scored tablets HYDRODIURIL (Hydrochlorothiazide) bottles of 100 and 1,000.
Additional literature for the physician is available on request.

HYDRODIURIL is a trademark of Merck & Co., Inc. Trademarks outside the U S · DICHLOTRIDE, DICLOTRIDE, HYDROSALURIC.

MSD MERCK SHARP & DOHME, Division of Merck & Co., Inc., Philadelphia 1, Pa.

AMA Washington Letter

THE MONTH IN WASHINGTON

Congress won the first round in a battle over medical research funds, but the Eisenhower Administration is in a strategic position for the final outcome.

The House voted $344,279,000 for the National Institutes of Health, $50 million more than the Administration asked for in the fiscal 1960 budget. The move to increase medical research funds also had strong support in the Senate.

However, the Health, Education and Welfare Department and the Budget Bureau will have the final say on how much of the appropriated funds are spent during the 1960 fiscal year when the Administration is striving to balance the budget.

Arthur S. Flemming, Secretary of Health, Education and Welfare, vigorously denied a charge of the Democratic-controlled House Appropriations Committee that the Administration had "gone so far as to set back the medical research program . . . in a desperate attempt to present, on paper, a balanced budget." Flemming said the committee was trying to give a "clearly misleading" impression. He also said it was hard to see how the Administration's $294 million program could be regarded as a backward step.

Flemming pointed out that the Administration request was for the same amount voted by Congress last year. And, he added, some of last year's appropriation will not be spent this fiscal year.

At the same time, U. S. Surgeon General Leroy E. Burney testified before a Senate Appropriations Subcommittee that there was a shortage of trained personnel in all fields related to human health, including medical research.

Rep. Francis E. Dorn (R., N. Y.) again has introduced a bill that would provide for a special commission making a study of the supply of physicians. In a letter put in the *Congressional Record,* Dr. F. J. L. Blasingame, Executive Vice President of the American Medical Association, envisaged an adequate supply on a long-range basis. He said: "Over the long haul, the increase in medical students is much greater proportionately than is the increase in the population. . . . The future, I believe, looks bright."

* * *

A government-sponsored, six-year study of the causes of cerebral palsy, mental retardation and kindred defects in children has gotten underway in 16 private hospitals and universities.

The study involves no experimentation, only observation. About 40,000 women will be kept under close check from the second or third month of pregnancy through childbirth. Observation of their children will be maintained through six years of age.

* * *

U. S. scientists have blamed Russia for most of the radioactive fall-out thrust into the atmosphere in the last two years. But testimony before a Joint Congressional Committee on Atomic Energy estimated that overall the United States and Great Britain had created nearly three times as much radioactive debris by testing nuclear weapons as the Soviet Union had.

Russian tests were described as "extremely dirty" as to radioactive debris. However, the Russians have not exploded as many test weapons and devices as the Western Powers have.

The scientists differed on the degree of danger to humans posed by the radioactive fall-out. John A. McCone, Chairman of the Atomic Energy Commission, said that up to now the fall-out hazard has been "very small" and not serious when compared with common hazards, including natural radiation. But he warned against a "very serious hazard" in the future if nuclear tests are not restricted by international agreement.

* * *

The Walter Reed U. S. Army General Hospital in Northwest Washington quietly marked its fiftieth anniversary recently. Its 448,000 patients since it was founded in 1909 have included presidents, congressmen, cabinet members and other notables. President Eisenhower underwent an ileitis operation there in 1956. Gen. John J. Pershing died there in 1948 after being a patient for seven years. The two most distinguished patients recently: former Secretaries of State John Foster Dulles and George C. Marshall.

* * *

A Food and Drug Administration official has urged that physicians use care and judgment in writing PRN and similar prescriptions for sleeping pills and amphetamines. Nevis Cook of the agency's enforcement bureau said some pharmacists have been selling the drugs too freely on such prescriptions. The FDA planned to take court action when a glaring abuse presented a strong case. The issue is whether a pharmacist improperly practices medicine by indiscriminately refilling such prescriptions.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 JUNE, 1959 NUMBER 6

New Drugs for Old Uses and New Uses for Old Drugs

By Fredrick F. Yonkman, M.D.
Madison, New Jersey

PROGRESS in drug therapy during the last two decades supersedes that of all time prior to 1935. The Health News Institute[8] recently stated:

For thousands of years man has used herbs and plant products to help himself when he is ill. In the past hundred years, with the development of the biological sciences and the advent of synthetic organic chemistry, his progress has been greater than at any time in recorded history. In the past twenty years, an almost complete chemical revolution in medicine has taken place.

The golden age of pharmaceutical research may be said to have begun about fifty years ago with the work of Paul Ehrlich, the German bacteriologist, whose careful testing of hundreds of arsenic compounds led to the development of compound 606, Salvarsan, for the treatment of syphilis. In the following decades came new barbiturates for inducing sleep, modern germicides, intravenous anesthetics and the sulfa drugs. In this period, insulin, sex hormones and vitamins were isolated and made available to medicine. In the late 1930's developments gathered real momentum.

This most recent progress is obvious to all of us from our use of sulfas, antibiotics, antihistamines, corticosteroids, antihypertensives, tuberculocides, tranquilizers, diuretics, et cetera. We should not, however lose sight of those old friends of ours, amyl nitrite, aminopyrine, nikethamide, alcohol and others, as they become newly applicable in some of our long-standing medical problems such as biliary "colic," acute alcoholism or Parkinsonism. Good therapeutic judgment crystallizes from examination of new drugs in the mirror of the past. New drugs are very important for old uses but often, just as important, are new uses for old drugs.

Anyone interested in this rapid progress in the

THE PROGRESS OF THERAPY

1910	1945
1. Ether	1. Penicillin, Sulfonamides, Antibiotics
2. Morphine	2. Whole blood, blood plasma, blood derivatives
3. Digitalis	3. Quinine, quinacrine
4. Diphtheria antitoxin	4. Ether, other anesthetics, morphine, cocaine and barbiturates
5. Smallpox vaccine	5. Digitalis
6. Iron	6. Arsphenamines
7. Quinine	7. Immunizing agents and specific antitoxins and vaccines
8. Iodine	8. Insulin and liver extract
9. Alcohol	9. Other hormones
10. Mercury	10. Vitamins

Presented at the Twelfth Annual Fall Postgraduate Clinic of the Michigan Academy of General Practice, Detroit, Michigan, November 13, 1958.

development of new and better therapeutic agents, either for specific treatment or symptomatic relief, must be impressed by the enlightening presentation which appeared in the *Journal of the American Medical Association,* March 10, 1945. A condensation of these data is shown in the preceding table.

One notes not only the great change for the better in the column on the right compared to that on the left, but also how some of our old-timers, depended upon in 1910, are still able assistants thirty-five years later, even though their relative position of importance has been altered due to the dramatic introduction of specific therapeutic agents for most types of infections plaguing mankind.

Still later and more dramatic strides have been made in the progress of therapy in the last ten or twelve years as is evident from a review of the following list:

PROGRESS SINCE 1945

Newer antibiotics, Cortisone modifications
Drugs for treatment of:
Tuberculosis, Motion sickness
High blood pressure, Cancer
Mental illness, Anxiety
tension, Lethargy
Arteriosclerosis (?)

Where would we be today without these new therapeutic agents? What little might have materialized if you and I and hosts of others were not interested in mutual co-operation through research developments and clinical collaboration at the bedside to improve the health and welfare of our fellow beings? Small wonder then that Dr. Theodore Klumpp, President of Winthrop Laboratories, so rightly states:[18]

> . . . In the last fifty years more progress has been made in the conquest of disease and the prolongation of life than had been accomplished in the entire 999 centuries of man's previous existence on earth. With faith in ourselves, the men and women of tomorrow can look forward to accomplishments in the next fifty years that will dwarf those of the past half century.

Today, an average of 1,200,000 prescriptions are written, 90 per cent of which could not have been filled ten years ago!

This discussion must necessarily be limited to a very few items which I think are of unusual interest and importance.

One of our great intruders and enemies is pain and in our efforts to offer relief from this affliction through analgetics, we have come a long way from morphine and its synthetic substitutes to that most recent excellent preparation Darvon or Darvon compound.

The Lilly organization should be congratulated for having made a real contribution to this area of therapy. Darvon and Darvon compound give relief in many types of pain including that associated with trauma of the periosteum.[14,15] It is effective by mouth, indicating that it is well absorbed. Thus far, there has been no evidence of addicting properties after two years of use, and it is hoped that it may not develop addiction in man even after prolonged use. Thus far, there also have been no evidences of hematologic changes of any concern nor of undesirable smooth muscle contraction of the gastrointestinal tract, specifically of the duodenum as has been so well established for morphine and several of its synthetic substitutes.

In the treatment of pain let us not forget our old friend, aspirin—buffered or otherwise—for, as you have noted, it is included in all APC mixtures which may even contain an additional specifically-acting analgetic, antihistaminic, or vasoconstrictor, for example, for the relief of coryza. Even aminopyrine (N.F.) the oldest, non-narcotic, is receiving a "new look." It is not coming back to haunt us unjustifiably but rather to use intelligently even as an antipyretic in severe infections as reported by Cardon and associates[3] of Northwestern University Medical School. It is still one of the most valuable anodynes and antipyretics in our therapeutic armamentarium despite its almost complete abandonment as a result of a full report by Kracke[19] in 1935.

Aminopyrine, in one form or another, and often when combined with a mild sedative such as a small dose of barbiturate, stands uppermost on many lists of anodynes in Europe, South America and the Far East. It seems to be less offensive in producing agranulocytosis than some of our new, widely used, synthetic drugs developed in the last ten or twenty years; this statement would seem to have firm foundation by the very extensive use of aminopyrine as cited above in most countries outside the United States. It is my understanding that in Brazil, for example, aminopyrine can be purchased over-the-counter ad libitum. The relative safety of this drug thus would seem to be reasonably well assured and it behooves us to take a second look at some of our old stand-bys that are tried and true pain relievers and antipyretics for such common afflictions as migraine headaches

and dysmenorrhea, in particular, as well as in fevers due to infections. Such frequent reinspection would seem preferable to the constant search for new drugs for old uses, desirable as this may be for certain indications.

In order to bring aminopyrine into proper focus regarding its pros and cons, the following statements by Cardon and his associates are valuable:[3]

> Modern medical science has made such tremendous strides in the field of therapeutics that many older drugs, especially if potentially productive of untoward and dangerous side-effects, have been discredited and have fallen into disuse. Admittedly, many such drugs have marked therapeutic value and are deserving of further investigation and clinical trial before they are completely discarded.
>
> Aminopyrine, by force of historical circumstances, has been such a discredited drug for many years. Its value as a potent antipyretic is well known and needs no extensive elaboration.
>
> Aminopyrine is still a uniquely valuable and occasionally life-saving antipyretic which deserves a trial whenever fever is a significant feature of the clinical picture of disease. It may be effective under conditions in which other antipyretics and even the most powerful and specific of the newer drugs fail. The danger of agranulocytosis from its use, although real, has been overemphasized and is no greater than with many other drugs in common use today. Aminopyrine has its place in therapeutics under well controlled clinical conditions and under the supervision of a physician, but its careless and indiscriminate use is to be condemned.

The second look at any drug is certainly further justifiable as manifest today by the increasing return of Chloromycetin and sulfa drugs in certain infections.

In reference to pain associated with biliary spasm or biliary colic, I should like once again to draw attention to our good old friends, amyl nitrite and spirit of nitroglycerin. Nitrites, especially amyl nitrite and nitroglycerin, have long been an important group of drugs, but rebirth of their gastrointestinal potentialities has been due to the fine work of McGowan and his co-workers.[20] Years ago, biliary spasm was relieved by inhalation of amyl nitrite but, as is so typical of therapeutic procedures, each has its day, its peak and dip until therapy becomes rational as proven by objective physiologic research. With small balloons in the common duct of available patients, made accessible by way of drainage T-tubes following surgical intervention, such as cholecystectomy or cholecystotomy, McGowan graphically demonstrated the relaxing effect of nitrites even after the smooth muscle of the common bile duct had been rendered painfully spastic by morphine. Morphine tends to increase smooth muscle tone throughout the entire intestine[26] as well as in the common duct. Demerol does likewise in the duodenum as demonstrated by Gaensler and his associates.[10]

Hence, quick relief under amyl nitrite results from relaxation of all smooth muscle, including the spastic sphincter of Oddi, allowing dammed back bile to "flush" the common duct exit into the duodenum, probably carrying with it any small obstructing substance at the orifice. Continued relief may necessitate sustained relaxation by the supportive use of nitroglycerin, many patients requiring no morphine if the nitrites are judiciously employed. Nitroglycerin can be administered in dosage of one one-hundredth of a grain (0.0006 gm.), and relief usually follows in from five to ten minutes, enduring for an hour or more and, on occasion, indefinitely. Dramatic relief has been obtained with this therapy in many hands and our limited experience supports the frequently enthusiastic claims associated with this very rational type of treatment. As important as are new, specifically-acting drugs, proper usage of older agents is extremely gratifying when physiologic disturbances can often be so easily altered if one knows the cardinal action of these commonly used, time-tested agents.

Penicillin is both new and old, relatively new as a chemotherapeutic agent, but old as the first antibiotic to be extensively used. As Zimmerman[27] states:

> Penicillin was the first, and is still the most extensively used antibiotic. Three hundred and fifty tons of penicillin a year are currently produced in the United States. This is 500 trillion units, over 3 million units per inhabitant.[13] Penicillin is relatively inexpensive and still the treatment of choice for many infections susceptible to antibiotic therapy. However, allergic reactions to penicillin have become increasingly more common. Between 5 and 10 per cent of the unselected population is now allergic to penicillin, and it causes over 80 per cent of all drug eruptions. With the advent of benzathine and other repository penicillins, reactions have become even more long-lasting and violent. Most physicians have seen severe penicillin reactions, which refused to respond to any conventional anti-allergic therapy. A dread of such reactions and of medico-legal sequels, has made physicians withhold penicillin, even when it was the antibiotic of choice.
>
> Allergic reactions to all types of penicillin, and to all routes of administration, have been reported. Substitution (i.e., O for G or oral for injectable) is seldom

of value. Antihistamines, given concurrently with penicillin, may inhibit an immediate anaphylactic reaction, but mask valuable warning signals, with anaphylaxis impending when the antihistamine effect wears off. Penicillin reactions are less frequent and less severe in children than in adults, but any type of reaction may appear in any individual. Skin testing is not of sufficient value to warrant routine use. *Severe and even fatal reactions may occur after negative skin testing.*

History is more reliable than skin testing. If the patient has had a reaction to penicillin, he will probably react on re-exposure more violently and more rapidly. Malpractice suits have been won by patients against physicians who gave them penicillin with knowledge of the patient's allergy to the drug. Unless the need for penicillin is specific and imperative, some other antibiotic should be used if the patient states that he has had a previous reaction to penicillin.

Once a full-blown penicillin reaction occurs the drug of choice is penicillinase.* This enzyme is not only dramatically life-saving in such an emergency but also it rapidly ameliorates the severe symptoms associated with the penicillin reaction. Here, attention should be directed to Minno and Davis[22] for their fine gesture of giving credit to Becker[2] who first suggested the use of penicillinase (discovered by Abraham and Chain[1]) for penicillin reactions. This is another fine illustration of therapeutic application of a basic laboratory principle; "therapeutic discoveries" are really not such, they are "developments," often based on observations[25] made by the laboratorian interested in basic research.

One must remember that while the remarkable benefits of penicillinase are due to its capacity to completely inactivate penicillin as an allergen, it also destroys its therapeutic or antibiotic powers. Therefore, other antibiotics or chemotherapeutic agents must obviously be employed if the clinical indications of infection still warrant such alternative therapy.

Another problem of growing importance is that of acute and chronic alcoholism. In the former, "sobering off" or "drying out" is not only time-consuming but often an obnoxious and distasteful ordeal for the attendants. Glucose and insulin, as advised by Goldfarb and his co-workers[12] is of some assistance in increasing the metabolism or burning up of alcohol, but it is still a time-consuming procedure. Thus recent work with methylphenidate,**[7,11] a psychic stimulant employed generally and also in geriatrics,[23] is of special interest. Gale[11] of Mount Sinai Hospital in Cleveland brought to our attention his successful treatment of a child, age three and one-half, who had unfortunately become heavily intoxicated and comatose after ingesting an unknown quantity of whiskey. After two successive doses of 10 mg. of Ritalin (intramuscularly) about three hours apart, this patient recovered and was discharged about one-half hour after the second dose.

The average dead drunk adult is usually revived quickly to the point where he is alert, lucid and able to proceed home on his own power within fifteen to thirty minutes after the intravenous injection of this safe restorative. For example, Scogin and his associates[24] of Baylor University report very briefly on respective case histories as follows:

J. B.—male—chronic alcoholic brought in after passing out, unable to stand, very lethargic—50 mg. Ritalin i.v., three minutes later patient alert, awake—thirty minutes walked out and caught bus. Thus able to give immediate disposition to an otherwise twenty-four-hour problem.

Twenty-five mg. Ritalin i.v., acute intoxication, dramatic response, able to ambulate and converse in a few minutes.

J. P.—semi-conscious due to barbiturate overdosage—responds only to painful stimuli and not well to that. Ritalin 40 mg. i.v.—patient awake and alert in two minutes—able to go home.

Similar favorable results with this new drug have been reported[4] recently from Johns Hopkins Hospital but with the addition of old-fashioned nikethamide† intravenously, an addition which seems to prolong the effect of the stimulating restorative. If such reports can be adequately confirmed in the future by various clinics across the country, an old-fashioned drug may assist the new one in a long-standing affliction which is becoming daily a greater problem for all of us—acute and chronic alcoholism. Likewise, this restorative procedure becomes important in the rapidly growing problem of overdosage of sleeping tablets and tranquilizers. In both of these situations, injections of the restorative stimulant, Ritalin, is often almost as dramatic as in acute alcoholism.

In the event that Levophed* (norepinephrine) and Ritalin be used together to raise blood pressure and to stimulate respiration, extreme caution must be exercised on the basis of recent reports

*Neutrapen produced by SchenLabs Pharmaceuticals, Inc.

**Ritalin.

†Coramine.

*Winthrop Laboratories.

by Ivey[17] and Maxwell and his associates[21] for the former drug is markedly potentiated in its vasoconstrictive and hypertensive activity by the latter. On the other hand, this mutual relationship can likewise be employed to advantage should Levophed seem to become gradually less effective in certain patients in "shock" who require urgent treatment.

The relatively new use for the old-fashioned drug, alcohol, has been reported by numerous investigators following the pioneer work of Cooper[5] of St. Barnabas Hospital in New York City. The old problem of Parkinsonism, as we all know, can often be most disturbing and disconcerting despite medical therapy. Although several synthetic drugs have offered varying degrees of improvement over the old belladonna therapy, they still lack complete effectiveness while producing significant side reactions in some cases on increased dosage. Therefore the fine work of Cooper and his associates is all the more important. Proper targeting of small injections of alcohol (more recently in ethylcellulose (Etopalin)), in the globus pallidus, has often produced dramatic improvement in severe Parkinsonian patients. Not only rigidity but also tremor have been largely negated in 50 to 70 per cent of the patients thus treated.

Similar dramatic improvement has been reported by Cooper and his co-workers[6] in choreoathetosis or dystonia. The results thus achieved in both conditions are better appreciated when one is privileged to see the Kodachrome movies of patients before and after such alcoholic injection. To be sure, this is no child's play—this type of surgical intervention—and is to be restricted to only those hands of expert neurosurgeons, but it is comforting for us and the patient to know that mild to marked degrees of relief may be forthcoming in these long-suffering patients provided they be willing to take the relatively low degree of risk associated with this procedure. Again, a relatively new use for an old-fashioned drug, alcohol.

One of the most important medical problems confronting you, no doubt, is that of pregnancy. The hopeful mother-to-be may anxiously ask you, "Oh doctor, do you think I am *finally* pregnant?" or the good woman of thirty-two, already the mother of five or six youngsters born about a year apart, begging for some relief may ask, "Oh doctor, do you really think I am pregnant *again?*" In either case, the good old-fashioned rabbit test may bat about 80 per cent for us diagnostically but the recent report of Hayden[16] of the University of Chicago indicates that proper use of now old-fashioned, physiologically normal progesterone may lift that batting average to 100 per cent. Hayden's procedure is indeed very simple and most feasible: simply that of oral administration of progesterone U.S.P., 200 mg. daily for five days. In 85 per cent of the non-pregnant patients, vaginal bleeding occurred within three to seven days after the last day of therapy. He states that in patients who have always enjoyed regular menstrual cycles, the use of progesterone-induced withdrawal bleeding as a simple physiologic but non-specific test for pregnancy or secondary amenorrhea is highly accurate, in fact in the current series there was 100 per cent accuracy. Also he noted no alteration in the course of gestation either with the standard or excessively high dosage of progesterone; furthermore, no abortion could be attributed to the use of progesterone. Thus, Hayden focuses proper attention on good old-fashioned progesterone in the age-old medical problem of pregnancy.

Other new therapeutic innovations have been presented during your meetings here or elsewhere and excellent work has been published on the more recent and very significant advances in therapy, including new corticosteroids for rheumatoid arthritis, et cetera, Orinase (Upjohn) for the treatment of certain diabetics and Diuril or chlorothiazide (Merck). A new therapeutic agent has been developed by the Ciba laboratories under the name of Esidrix (hydrochlorothiazide) and was reported at the Southern Medical Society meetings in New Orleans last week (November 3, 1958) as being from ten to twenty times more effiective than chlorothiazide as a diuretic and antihypertensive agent.

Space does not permit me to elaborate now on these recent developments, but I hope sincerely that we are all alert, not only to the recent advances in our various fields of medical interest, but also to the benefits of the judicious use of some of our older stand-by drugs in some of these fields of application and thus be able to exercise good therapeutic judgment which crystallizes from examination of new drugs in the mirror of the past.

References

1. Abraham, E. P., and Chain, E.: An enzyme from bacteria able to destroy penicillin. Nature, 146:837, 1940.

2. Becker, R. M.: Effect of penicillinase on circulating penicillin. New England J. Med., 254:952 (May 17) 1956.
3. Cardon, L., Comess, O. H., Noble, T. A., and Pomaranc, M. M.: Value of aminopyrine. Ann. Int. Med., 48:616 (March) 1958.
4. Chant, H. L.: Clinical research report to Ciba.
5. Cooper, I. S.: Etopalin: A new substance useful for production of focal intracerebral lesions in human subjects. Letter to the editor. J. Am. Geriatrics Soc., 4:1033 (Oct.) 1956.
6. Cooper, I. S., et al.: St. Barnabas symposium on surgical therapy of extrapyramidal disorders. J. Am. Geriatrics Soc., 4:1-151 (Dec.) 1956.
7. Davidoff, E., Best, J. L., and McPheeters, H. J.: The effects of Ritalin (methyl phenidylacetate hydrochloride) on mildly depressed ambulatory patients. New York State J. Med., 57:1753 (May 15) 1957.
8. Facts About Pharmacy and Pharmaceuticals. Health News Institute Booklet, 1958.
9. Feldman, D. J., and Zucker, H. D.: Present-day medical management of alcoholism. J.A.M.A., 153: 895 (Nov. 7) 1953.
10. Gaensler, E. A., McGowan, J. M., and Henderson, F. F.: A comparative study of the action of demerol and opium alkaloids in relation to biliary spasm. Surgery, 23:211, 1948.
11. Gale, A. S.: Clinical research report to Ciba.
12. Goldfarb, W., Bowman, K. M., and Parker, S.: The treatment of acute alcoholism with glucose and insulin. J. Clin. Invest., 18:581, 1939.
13. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics. Second Edition. New York: The Macmillan Co., 1955.
14. Gruber, C. M., Jr.: Codeine phosphate, propoxyphene hydrochloride, and placebo. J.A.M.A., 164: 966 (June 29) 1957.
15. Gruber, C. M., Jr., Miller, C. L., Finneran, J., and Chernish, S. M.: The effectiveness of d-propoxyphene hydrochloride and codeine phosphate as determined by two methods of clinical testing for relief of chronic pain. J. Pharmacol. & Exper. Therap., 118: 280, 1956.
16. Hayden, G. E.: Progesterone-induced withdrawal bleeding as a simple physiologic test for pregnancy. Am. J. Obst. & Gynec., 76:271 (Aug.) 1958.
17. Ivey, E. P.: Methylphenidate hydrochloride therapy after attempted suicide. J.A.M.A., 167:2071 (August 23) 1958.
18. Klumpp, T. G.: Contributions of the pharmaceutical industry to health. Connecticut M. J., 20:695 (Sept.) 1956.
19. Kracke, R. R., and Parker, C. P.: The relationship of drug therapy to agranulocytosis. J.A.M.A., 105: 960, 1935.
20. McGowan, J., Butsch, W. L., and Walters, W.: Pressure in the common bile duct of man. J.A.M.A., 106:2227, 1936.
21. Maxwell, R. A., Plummer, A. J., Ross, S. D., Paytas, J. J., and Dennis, A. D.: Antihypertensive effects of central nervous stimulant, methylphenidate. Arch. internat. pharmacodyn., 112:26 (Oct.) 1957.
22. Minno, A. M., and Davis, G. M.: Penicillinase in the treatment of penicillin reactions. J.A.M.A., 165: 222 (Sept. 21) 1957.
23. Natensohn, A. L.: Ritonic—a new geriatric supplement. J. Am. Geriatrics Soc., 6:534 (July) 1958.
24. Scogin, J., et al.: Clinical research report to Ciba.
25. Yonkman, F. F.: What's new in drugs? J. Michigan M. Soc., 56:203 (Feb.) 1957.
26. Yonkman, F. F., Hiebert, J. M., and Singh, H.: Morphine and intestinal activity. New England J. Med., 214:507, 1936.
27. Zimmerman, M. C.: The prophylaxis and treatment of penicillin reactions with penicillinase. Clin. Med., 5:305, 1958.

PRESIDENTS' NAMESAKES

George Washington, Abraham Lincoln, Thomas Jefferson and Herbert Hoover—to the average American these are names of illustrious White House occupants, but to the New Jersey Blue Cross and Blue Shield Plans they simply represent the names of present-day members.

A recent survey of the New Jersey Plans' membership records revealed that seventy-four Blue Cross and Blue Shield members bear the names of former presidents of the United States. More specifically, the names of all but eleven of the thirty-two presidents are sprinkled through the Plans' membership listings.

Eleven members answer to the name of George Washington, while the names of Andrew Jackson, Andrew Johnson and Woodrow Wilson each appear eight times. James Buchanan runs a close third with seven, followed by John Tyler with five. Four subscribers carry the name of James Monroe, three of John Adams and William Harrison and two of John Quincy Adams, Thomas Jefferson and James Madison.

Also on the Plans' scrolls are Grover Cleveland, Ulysses S. Grant, Rutherford B. Hayes, Abraham Lincoln, Herbert Hoover, Benjamin Harrison, William McKinley, Martin Van Buren, James Polk and Zachary Taylor.

Of the eleven presidents not represented, seven served terms since the turn of the century. Those seven are Theodore Roosevelt, Howard Taft, Warren Harding, Calvin Coolidge, Franklin Roosevelt, Harry Truman and Dwight D. Eisenhower.

Management of Acute Toxemia of Pregnancy

By John Parks, M.D., and
James G. Sites, M.D.
Washington, D. C.

UNTIL such time as the exact cause of pregnancy toxemia is known, the management of this death-dealing disease will necessarily depend upon early detection of symptoms and empiric treatment of the associated hypertension.

Vasospasm is the basic physiopathologic change which precedes tissue hypoxia in the mother. The initiator of vasospasm possibly comes from a metabolic product of the placenta or from the uterine musculature. Certainly without a placenta, pregnancy toxemia does not occur. Hypertensive toxemia of pregnancy is more prevalent in patients who have an excessive amount of chorionic tissue as occurs with an hydatid mole.[2]

If one is experienced and will take adequate time to study the eye grounds of the patient, early evidence of vasospasm can be detected. In addition to narrowing and whitening of the arteries and venous congestion, the glistening sheen of the retinal edema becomes more evident as toxemia progresses.

Vasospasm leads to a characteristic change in the blood pressure. The diastolic pressure rises first followed by an increase in the systolic blood pressure. In clinical observation two characteristic changes in the blood pressure are important.

One is the relative rise in the blood pressure. For example, a patient who ordinarily has a blood pressure of 100/70 mm. Hg. may have severe toxemia with a pressure of 120/90. This relative rise is more significant than any accepted pathologic blood pressure level such as 140/90. A rise in blood pressure above the patient's non-pregnant normal of 20 mm. Hg. diastolic or 30 mm. Hg. in the systolic pressure should serve as a serious warning signal to the observing physician.

The second observation concerns the pulse pressure. When the pulse pressure is much greater or much less than one-third of the systolic pressure, the clinician has useful evidence of potential cardiovascular incompetency. In acute pregnancy toxemia, the rise in diastolic pressure may leave the patient with a relatively small pulse pressure. Take again the example of the patient who has a blood pressure of 120/90. Her pulse pressure of 30 mm. Hg. is much less than one-third of the systolic pressure. Such a patient practically always has associated tissue edema and is a potential candidate for convulsions and cardiac failure.

The management of toxemia of pregnancy depends somewhat upon the time when the patient is first seen in the course of the disease. Untreated pregnancy toxemia has a progressively severe course with: rapid weight gain, increasing hypertension, visual disturbances, epigastric distress, irritability, edema, proteinuria, convulsions, associated abruptio placenta, fetal death, and maternal death. (Unless the patient has chronic renal disease, proteinuria is a late sign of pregnancy toxemia). Therefore, management may be discussed under three headings: prevention, palliation, and emergency treatment.

Preventive Treatment

Preventive measures consist of careful prenatal observations to detect unusual weight gain, rise in blood pressure, changes in the eye grounds and proteinuria. If the patient reports in early pregnancy and if acceptable prenatal care is given, toxemia is *almost* a preventable disease. Adequate evaluation and correction of emotional components, reduction in sodium intake during the last two months of pregnancy and control of food and fluid balance will usually prevent any significant degree of pregnancy toxemia.

Palliative Treatment

Palliative treatment may be necessary in patients who report to the physician late in pregnancy showing some degree of pregnancy toxemia, or in those patients who fail to abide by prenatal instructions which prevent sodium accumulation, tissue

---

Presented at the Michigan Clinical Institute, Detroit, March 19-21, 1958.

From the Department of Obstetrics and Gynecology, The George Washington University, Washington, D. C.

edema and hypertension. The purpose of palliative treatment is to prolong pregnancy and prevent premature fetal delivery.

What can we provide for the patient who has a mild to moderately severe toxemia occurring sometime between the thirty-second and the thirty-seventh week of gestation which may prolong pregnancy with benefits to the fetus and without danger to the mother?

She will require more than the usual amount of attention. Visits should be at least daily until it is apparent that her symptoms are lessening or becoming worse. The doctor must decide whether he wishes to treat the patient in her home or in the hospital. In either event she should receive a low sodium, high protein, high vitamin diet and possibly some type of mild sedation such as phenobarbital.

The Diuretics[7]

The prompt use of procedures which eliminate fluid retention in pregnancy usually prevent the development of serious toxemia and hypertension. Once pregnancy toxemia has been initiated the most useful corrective form of medication is one which causes sodium diuresis.

Ammonium chloride has been used for many years as a diuretic agent. It is an acid-forming diuretic and by creating an acidosis results in increased water loss associated with excretion of salts in an effort to maintain a constant osmotic balance. With the newer diuretics, ammonium chloride is seldom used because the duration of action is not as long as desired.

Acetazolamide (Diamox), a carbonic anhydrase inhibitor, has been used with moderate success. This drug causes renal loss of bicarbonate which is accompanied by excretion of water, sodium and potassium. In dosages of 250 mg., once or twice daily, acetazolamide is effective for about eighteen to thirty-six hours at one time. It is not a drug which should be used for any prolonged period of time. It should be used intermittently.

Chlorothiazide (Diuril) in dosage of 1 (one) gm. daily by mouth has been found to be the most effective diuretic with the least evident dangers. Chlorothiazide seems to block sodium and potassium reabsorption in the tubules permitting rather free excretion of these ions. This is one of the most promising diuretics which has been introduced into modern therapy. It has a wide therapeutic index, eliminates sodium, potassium and fluids efficiently, and thus far shows no evidence of producing harmful side effects. It also has a hypotensive effect and potentiates other antihypertensive drugs.[8] Experience thus far would indicate that chlorathiazide may be given daily for several weeks when indicated in the reduction and prevention of fluid retention associated with pregnancy toxemia. Finnerty, Buchholz and Tuckman[4] working in the Toxemia Clinic of the D. C. General Hospital, suggest in summer that the drug be used five days out of the week to eliminate the possibility of development of a low salt syndrome.

Organomercurial (Neohydrin) produces its diuretic action by interrupting sodium reabsorption in the renal tubule. In dosage of two tablets (18.3 mg. each) per day this diuretic appears to be safe and effective. In the presence of known kidney disease other than the vasospasm of toxemia, its use should be restricted.

The Purgatives

Castor oil should never be used as a laxative. It will not initiate labor. It nauseates, irritates, eliminates, and dehydrates. Castor oil is an excellent lubricant for fine machinery, but should never be given to an expectant mother unless she asks for it.

Magnesium sulfate by mouth has some effect in removing fluids. A much easier material to take and an equally effective purgative is *citrate of magnesia*. The advantages of such catharsis are debatable.

The Hypotensive Drugs

For purposes of palliative prolongation of pregnancy the hypotensive drugs are of limited value. In most instances these drugs are used in hospitalized patients who have acute toxemia.

Magnesium sulfate is a time-tested vasodilator and central nervous system depressant. McCall and Sass[10] have demonstrated that magnesium sulfate relieves cerebral vasospasm, increases cerebral blood flow, augments oxygen utilization of the brain, and lowers blood pressure. We prefer to give this drug by the intravenous route. Up to 2 gm. of a 10 per cent solution may be given slowly. While giving magnesium sulfate the patient should be observed for unusual flushing, sweating of the upper lip, nausea, irregular pulse, and loss of knee jerk reflex. If any of these untoward symptoms develop (as the result of the injection of the magnesium ion) they may be counteracted by giving

10 ml. of 10 per cent solution calcium gluconate intravenously. Magnesium sulfate may be useful in some patients with impending or actual convulsions. It is an excellent anticonvulsant.

The Rauwolfia drug (Serpasil) is another central nervous system depressant and secondarily a vasodilator. Given by mouth it takes three to five days for this drug to become effective. Administered intramuscularly, 2.5 mg. at eight-hour intervals, it is very useful to decrease central nervous system sensitivity.[6] Thus the effectiveness of other drugs, particularly the barbiturates and veratrum viride is increased. One of the important side effects of Rauwolfia is nasal congestion which may be present in both the mother and the new born infant. Nasal congestion has an even greater influence on the breathing mechanism of the child than on that of the mother.[1] The anesthetist should know if Rauwolfia has been used and particularly if it has been used for any long period of time. It is very easy to over-anesthetize such a patient, especially if pentothal sodium is used.

Veratrum viride (Unitensen), a synthetic alkaloid derivative of veratrum viride, may be given alone or in combination with Serpasil in a dose of 0.5 mg. intramuscularly each hour until the blood pressure is at a desired level.[5,6] If this is not an effective dose, it may be increased to 0.6 or 0.7 mg. each hour. Unitensen stimulates the vagus at the medulla and causes slowing of the heart rate with an associated fall in blood pressure, frequently accompanied by nausea and some vomiting. Evidences of overdosage include sweating, pallor, shock, hypotension, nausea and vomiting. The antidotes for such symptoms are atropine sulfate 0.4 mg. (or more) intramuscularly, and oxygen. Some patients may show a tachyphylaxis to Unitensen after continued usage. This is usually corrected after a period of withdrawal of the drug.

Hydralazine Hydrochloride (Apresoline) is a drug which reduces hypertension and theoretically increases renal flow. The dosage of this drug in pregnancy toxemia is 10 mg. by mouth four times daily. For rapid action 10 to 20 mg. may be given intravenously.

Sodium nembutal is given slowly where sedatives are necessary to control convulsions, using 250 to 500 mg. intravenously.

Morphine Sulfate is rarely used in antepartum patients. Unless it is given deeply into the muscle, morphine is absorbed slowly and tends to have a dangerously cumulative effect. Our best results have been obtained by a combination of the antihypertensive drugs and diuretics.

Emergency Treatment

In emergency treatment of acute toxemia, the physician is concerned with the various methods of dealing with pulmonary congestion, cardiac failure, convulsive states, fetal distress, and prematurity.

One of the real hazards of acute convulsive toxemia is death from aspiration and strangulation. It is unsafe to give heavy sedation of any type unless the patient's stomach is empty. In impending cardiac failure with rales at the base of the lungs, the patient should be hospitalized, given oxygen and rapidly digitalized. As a temporary measure, bloodless phlebotomy may be useful.

For patients with respiratory obstruction which cannot be overcome by the usual measures of aspiration or endotracheal intubation, tracheotomy may be a lifesaving procedure.[3]

In progressive toxemia of pregnancy, urgency of delivery requires careful consideration. Delivery should be accomplished with the least amount of trauma to the mother and fetus. If pelvic examination shows the cervix to be favorable and the pregnancy is near term, labor should be induced by rupture of the membranes. If necessary, carefully controlled intravenous pitocin stimulation may be used.[9] If the cervix is unfavorable and if pregnancy toxemia is progressing rapidly, cesarean section delivery is the method of choice. The only truly corrective treatment of pregnancy toxemia is delivery of the fetus and afterbirth.

The anesthetic used should be one providing relief of pain, relaxation of patient without relaxing the uterus, and adequate oxygen. It has been our experience that this is best accomplished by sodium pentothal, ethylene and oxygen.

After delivery all danger is not over. In our experience at least 10 per cent of the patients who have shown no evidence of prepartal toxemia have a significant and threatening rise in blood pressure during the first hour after delivery. The advantages of nine months of attentive prenatal care may be counteracted by failure to carefully observe the patient in the first hour following childbirth. Approximately 25 per cent of all patients with eclampsia have their first seizure in the postpartal period. An acute rise in blood pressure after delivery should be treated immediately. The best results have been obtained by the use of veratrum and sodium nembutal in the dosage stated previously.

Another acute, but relatively rare, postpartal condition, in the patient with toxemia is puerperal vasomotor collapse. This condition as described by Tatum and Mule[11] is similar to the Addisonian crisis characteristic of acute adrenal insufficiency. Immediate administration of isotonic or hypertonic (3 per cent) sodium chloride solution intravenously will restore vascular tone and produce prompt recovery.

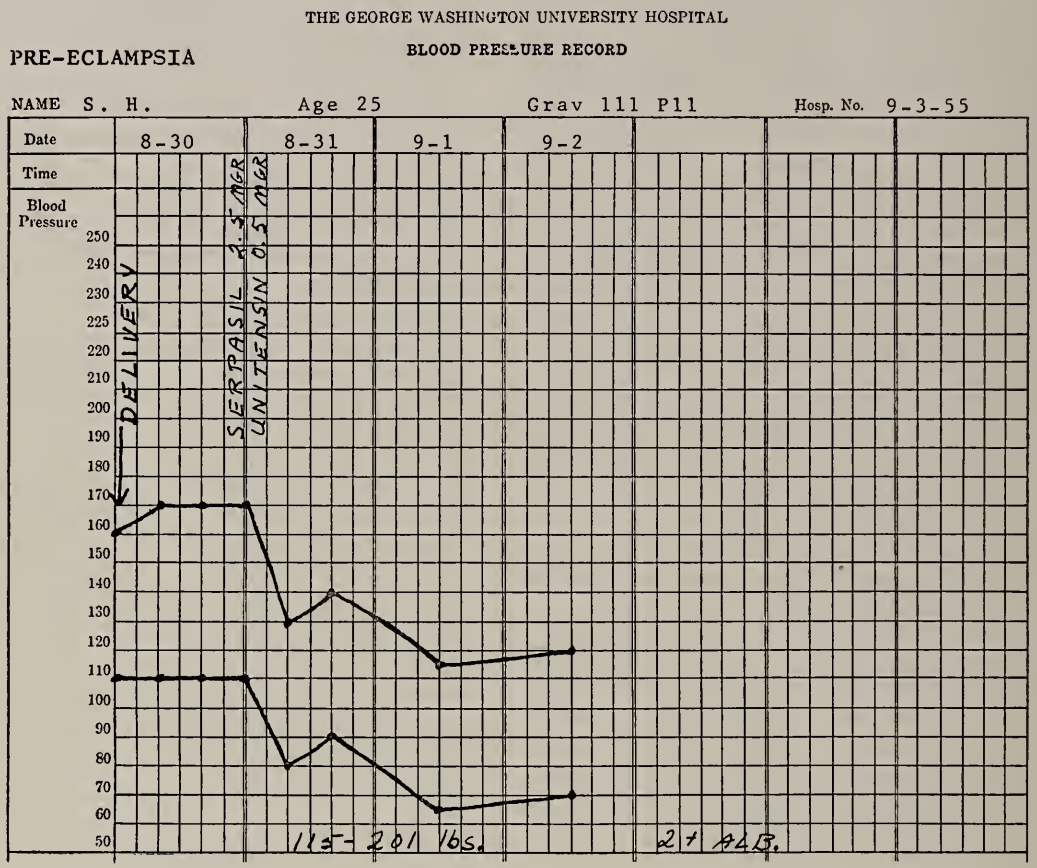


Chart 1.

Report of Cases

Case 1.—Gravida 3, para 2, aged twenty-five, gained in weight from 115 to 201 pounds. The patient had had no prenatal care. Urine showed 2 plus proteinuria. She delivered immediately upon admission to the hospital. Her postpartum blood pressure remained at 170/100 mm. Hg. until Serpasil 2.5 mg. and Unitensen 0.5 mg. were given. The immediate effect of these hypotensive drugs was that her blood pressure returned within forty-eight hours to her normal of 120/70.

Case 2.—A negress, aged twenty, primigravida, had no prenatal care. Her blood pressure on admission to the hospital was about 300/150 mm. Hg. She was having convulsions in approximately the thirty-sixth week of pregnancy. Her weight gain had been from 200 to 250 pounds. The urine showed 4 plus proteinuria. This patient's blood pressure indicated that she had severe toxemia superimposed on hypertensive cardiovascular disease—shown by the relatively constant pulse pressure regardless of variations in the blood pressure.

She was immediately placed on Serpasil and Unitensen. The convulsions were controlled. Physical examination showed the cervix to be long and uneffaced. The patient had generalized as well as marked, conjunctival edema. It was believed advisable to terminate the pregnancy by cesarean section.

Use of a cesarean section might be considered a debatable procedure, but in fulminating, progressive, severe eclamptic toxemia, delivery by cesarean section may be indicated after the convulsions have been controlled. In addition to hypertension, conjunctival edema and oliguria are indications for immediate termination of pregnancy by the safest means possible.

Conclusions

Pregnancy toxemia represents one of the truly reversible physiopathologic hypertensive diseases occuring in early life. This is a temporarily ac-

quired, almost totally preventable hypertensive disease of pregnancy which directly affects the lives of two individuals. The vasopressor factor causing pregnancy toxemia remains unknown, but excellent progress has been made in the prevention and in the emperic treatment of this potentially fatal maternal-fetal syndrome.

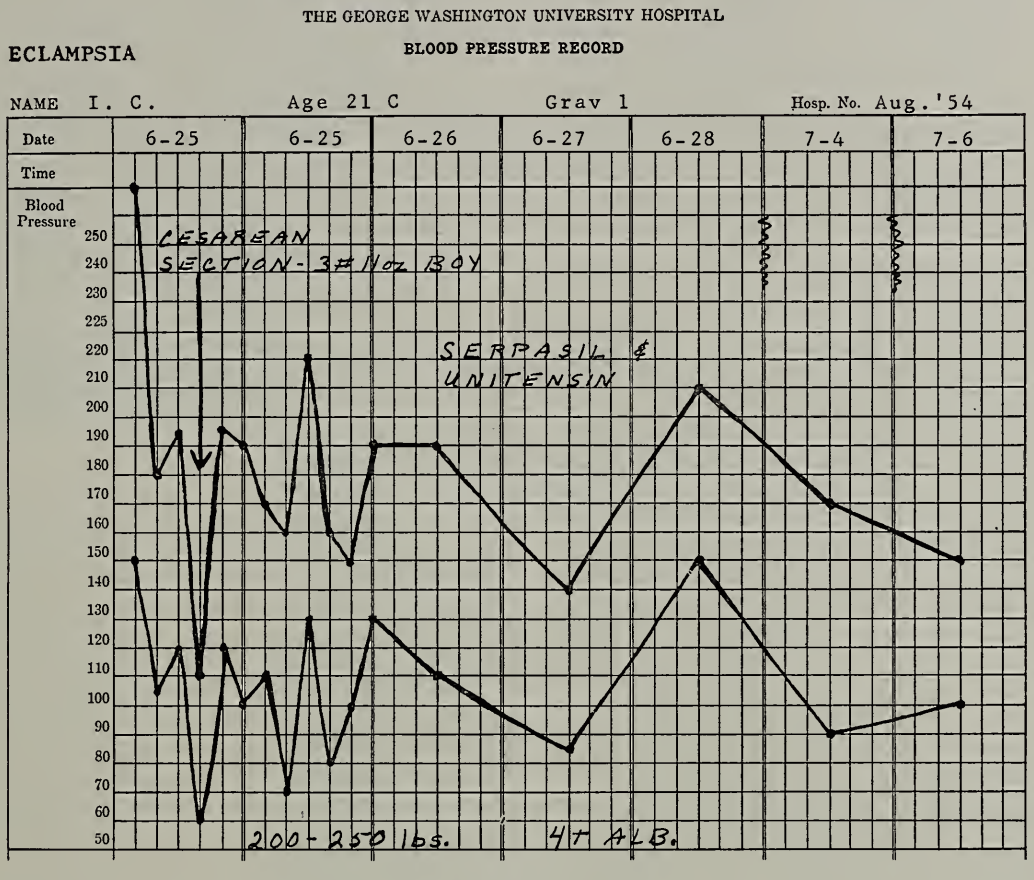


Chart 2.

References

1. Budnick, I. S., Leikin, S., and Hoeck, L. E.: Effect in the newborn infant of reserpine administered ante partum. Am. J. Dis. Child., 90:286, 1955.
2. Chesley, L. C., Cosgrove, S. A., and Preece, J.: Hydatidiform mole, with special reference to recurrence and associated eclampsia. Am. J. Obst. & Gynec., 52:311, 1946.
3. Collins, C. G., Nix, F. G., and Dyer, I.: Is tracheotomy indicated in eclampsia? Am. J. Obst. & Gynec., 66:1031, 1953.
4. Finnerty, F. A., Jr., Buchholz, J. H., and Tuckman, J.: Evaluation of chlorothiazide (Diuril) in the toxemias of pregnancy. J.A.M.A., 166:141, 1958.
5. Finnerty, F. A., Jr., and Fuchs, G. J.: The veratrum treatment of toxemia of pregnancy: a controlled study. Am. J. Obst. & Gynec., 66:830, 1953.
6. Finnerty, F. A., Jr., and Sites, J. G.: The value of parenteral reserpine in acute hypertension. Am. J. Med. Sc., 229:379, 1955.
7. Ford, R. V., Rochelle, J. B., Handley, C. A., Moyer, J. H., and Spurr, C. L.: Choice of a diuretic agent based on pharmacological principles. J.A.M.A., 166: 129, 1958.
8. Freis, E. D., Wanko, A., Wilson, I. M., and Parrish, A. E.: Treatment of essential hypertension with chlorothiazide (Diuril). J.A.M.A., 166:137, 1958.
9. Mauzy, C. H., and Donnelly, J. F.: The induction of premature labor by means of pitocin in patients with toxemia of pregnancy. Am. J. Obst. & Gynec., 64:517, 1952.
10. McCall, M. L., and Sass, D.: The action of magnesium sulfate on cerebral circulation and metabolism in toxemia of pregnancy. Am. J. Obst. & Gynec., 71:1089, 1956.
11. Tatum, H. J., and Mulé, J. G.: Puerperal vasomotor collapse in patients with toxemia of pregnancy —a new concept of the etiology and a rational plan of treatment. Am. J. Obst. & Gynec., 71:492, 1956.

Operative and Office Accessories

By W. B. Hubbard, M.D.
Flint, Michigan

FOR several years the writer has been interested in the subject of instrument control as related to posture, vision and magnification. Also, ophthalmologists (of which group he is one) are called upon to perform lengthy, delicate procedures and are consulted regularly in regard to visual problems.

Whenever about to do time-consuming or fine work, an operator might well ask himself, "Exactly what would be the best position for me to assume in relation to the patient and would glasses or magnification be a help? Must I work standing? Would it be possible to use arm or hand rests and would these result in more comfortable, accurate work?"

Unfortunately the above questions are seldom asked because in most operating rooms and offices there is a certain amount of standard equipment available and the physician is expected to use it and is adjusted to using it. Nevertheless, if he thinks that additional equipment and aids would be of value he should obtain and use them.

At times, one almost has to work standing as when one performs an abdominal operation upon an adult. When standing he is able to obtain some instrument control by keeping his arms close to his chest (Fig. 1). Also, at times, he is able to steady his hands on the patient's tissues or upon retractors without actually using the patient's body as a support, (Fig. 2). In either case, when standing erect the operator's eyes are about 22 inches from the area of operation. Although vision at this distance may be good, it is not the distance of choice for the most accurate vision,[5] especially in the presbyopic individual, even with glasses. Head worn magnifiers cannot be used. The position is most satisfactory where delicacy of touch and conservation of energy is not of paramount importance. It is best suited for operations of short or medium length in duration on large or coarse tissues.

Sometimes the surgeon stands and bends well forward (Fig. 3). This is a difficult and exhausting position though the operator's vision is better. However, if he is presbyopic, his lenses must usually be focussed accordingly. By bending still further forward, he is able to use head worn magnifiers. This posture is suitable only for short operations on moderate sized tissues and areas. The operator may vary between the positions mentioned during the same procedure, although this is only partially satisfactory. Presbyopic surgeons will often need some type of trifocal lenses if they vary the position of their head.

A surgeon can best carry out lengthy, delicate operations in the sitting position, with arm and/or hand rests,[5] using proper glasses and head attached magnifiers (Figs. 4 and 5).[3,4,6,7,8] An adequate posture is so important that obtaining a satisfactory operating table is worth the trouble. If possible, the operator should be able to place his knees under the table; otherwise, he may use his knees as arm rests.

When operating while sitting, the presbyopic surgeon needs different glasses than when standing. Thus he should have obtained and tried multiple pairs of lenses with various focal lengths and various sizes, numbers, and shapes of segments, as well as single vision lenses of different focus. He should no more insist on one pair of lenses for all uses than he should insist on one pair of shoes for house, office, hunting and evening wear. As an aid in selecting lenses, he should make use of such aids as the Univis Professional Visual Demonstration Kit[9] and the "Guide to Occupational and Visual Needs."[2] In the latter, he will note for example that a commercial photographer uses three different pairs of multiple focal glasses for the several different aspects of his work.

While sitting, the operator can wear head magnifiers. They facilitate accuracy and can be used all or part-time. The popular song "There is nothing you can do that I can't do better," might be changed to read, "There is nothing you can see that you can't see better." Many physicians do not own a pair of magnifiers, whereas they should have one or more, or a bifocal pair. Those that slip over the head are the most convenient. The author's bifocal magnifiers[4] are approximately 2x magnification below and 4x above (commonly used strengths), and do away with the need of two

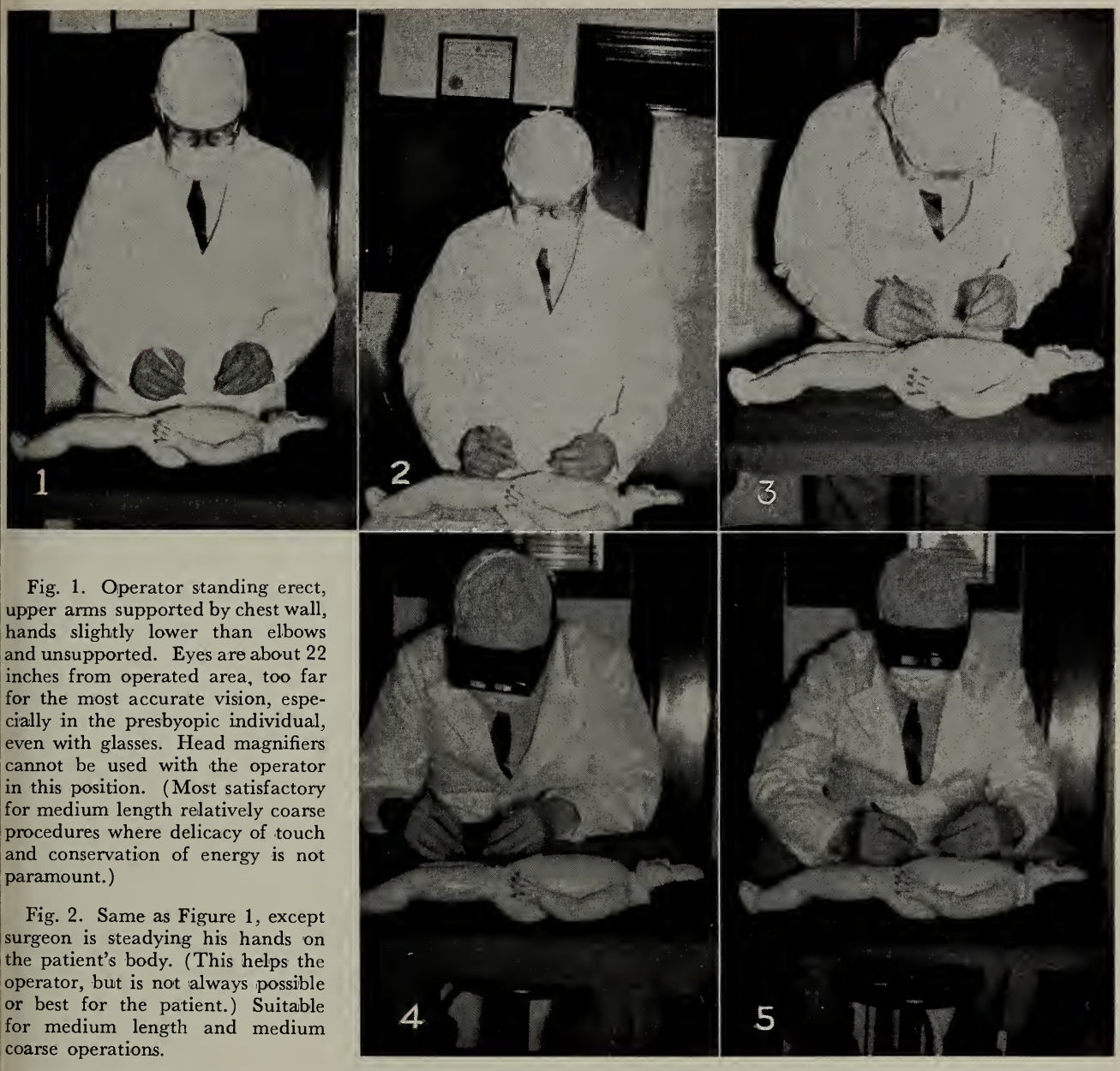


Fig. 1. Operator standing erect, upper arms supported by chest wall, hands slightly lower than elbows and unsupported. Eyes are about 22 inches from operated area, too far for the most accurate vision, especially in the presbyopic individual, even with glasses. Head magnifiers cannot be used with the operator in this position. (Most satisfactory for medium length relatively coarse procedures where delicacy of touch and conservation of energy is not paramount.)

Fig. 2. Same as Figure 1, except surgeon is steadying his hands on the patient's body. (This helps the operator, but is not always possible or best for the patient.) Suitable for medium length and medium coarse operations.

Fig. 3. Same as Figure 1, except surgeon is bending forward. This is a difficult, exhausting way to stand, although it gives the surgeon better vision. He would need to bend still further forward to use magnifiers. (Suitable for short operations only. Using Positions 1, 2, and 3 at the same operation only partially solves the problems involved.)

Fig. 4. Surgeon comfortably seated at a suitable operating table. An excellent position for working with ease and accuracy over an extended period. The surgeon's head is about 14 inches from the operative field for best vision. A head attached magnifier can be used without trouble. (Note: The average Operating Table is designed for general use and not suitable for many specific uses.)

Fig. 5. Instrument Control. Same as Figure 4, except operator supports (steadies) his arms on his knees.

pair. The focal lengths of the 2x ones is about 10 inches, of the 4x ones about 5 inches. If the 4x magnifiers are used for anything other than inspection of the field, the tips should be sterile because the hands may touch them. These strengths are usually worn over "distance glasses."

Magnifiers that fit on the nose like spectacle frames require more adjustment—often have to have the operator's prescription ground into them due to the difficulty of fitting them over other glasses and they are comparatively fragile. Magnifiers held in the hand or by an assistant or fixed upon a support are valuable. The larger they are in diameter, without aberration and distortion, the better. A monocular magnifier held close to the operator's eye is not satisfactory. A magnification

of about 10x can be obtained by using the appropriate parts from a biomicroscope,[1] but the field is so small and the illumination required so great that it is not practical for common use.

Some instances where sitting, use of arm rests, special glasses, and magnifiers can frequently be used to advantage are: repair of injuries to tendons, fascias, and blood vessels as well as repair of the skin when multiple fine sutures are necessary for cosmetic reasons; operations on and around the eye; operations on infants where the parts are small; and operations on the middle or inner ear.

Conclusions

Physicians, when possible—especially when engaged in fine or lengthy work, should sit and use elbow, wrist and/or hand rests. Physicians should wear glasses more frequently and, especially if presbyopic, they should obtain experience with several strengths, sizes and types of multifocal lenses. Magnifiers are valuable and several kinds are discussed.

References

1. Becker, Bernard: The Zeiss operating microscope. Am. J. Ophth., 42:302 (Aug.) 1956.
2. Holmes, Clark: Guide to Occupational and Visual Needs, Vol. 1. Los Angeles: Silverlake Lithographers, 1958.
3. Hubbard, W. B., and Hubbard, W. C.: An arm-support table. Tr. Am. Acad. Ophth., 61:511 (July-Aug.) 1957.
4. Hubbard, W. B., and Hubbard, W. C.: An improved magnifier. Tr. Am. Acad. Ophth., 61:510 (July-Aug.) 1957.
5. Lancaster, Walter B.: Refraction and Motility, pp. 207, 210, 239, 240, 243, 244. Springfield, Ill.: Charles C Thomas, 1952.
6. Simmonds, Noel T.: Surgical pillow. Tr. Am. Acad. Ophth., 60:494 (May-June) 1956.
7. Simmonds, Noel T.: Surgical chair. Tr. Am. Acad. Ophth., 60:494-496.
8. Simonton, J. T., and Bladyes, J. E., Jr.: Removal of corneal sutures. Am. J. Ophth., 45:111 (Jan.) 1958.
9. Univis Professional Visual Demonstration Kit. Dayton, Ohio: Univis Lens Co., 1957.

COSTS OF MEDICAL SERVICES

Consumer Price Indexes

(1947-49 = 100)

	Total Medical Care	*Prescription and Drugs*	*General M.D. Fees*	*Hospital Room Rates*	*Food*	*Housing*
1958 (March)	142.3	120.2	138.3	196.4	120.8	127.5
1957	138.0	116.7	134.5	187.3	115.4	125.6
1956	132.6	113.7	128.4	173.3	111.7	121.7
1955	128.0	111.2	124.3	164.4	110.9	120.0
1954	125.2	110.1	119.9	156.8	112.6	119.1
1953	121.3	108.9	116.1	148.2	112.8	117.7
1952	117.2	107.9	113.0	139.5	114.6	114.6
1951	111.1	106.9	108.0	126.9	112.6	112.4
1950	106.0	103.9	104.0	114.6	101.2	106.1

Costs of components in Medical Care such as drugs, doctor's fees and hospital rooms have increased substantially more, as has the Housing Index. It seems that criticism has been placed on the least important offender against the public's purse.

Over a longer period of time, from 1936 through 1956, the annual increase in the medical care index has averaged 4% compared with 8.5% for hospital care, 3.4% for doctor's fees, 5% for food and only 2% for prescriptions and drugs.—Health Information Foundation, October 31, 1958.

About seven out of every ten U. S. families now have some form of protection under voluntary health insurance. The proportion of insured families has increased almost 10 per cent in the last five years.

Seventy-five per cent of the population in the Northwest part of the United States carries insurance against hospital costs. Comparable percentages for the other sections are 68 for the West, 67 for the North Central, and 55 per cent for the South.—Health Information Foundation, May 8, 1959.

Congenital Hypothyroidism

A Preventable Cause of Mental Retardation

By William H. Beierwaltes, M.D., George H. Lowrey, M.D.,
Richard A. Aster, M.D., Govind Raman, M.B., B.S.,
and Edward A. Carr, Jr., M.D.
Ann Arbor, Michigan

ALTHOUGH cretinism is a well-recognized cause of mental retardation, it is generally believed to be a relatively rare cause. Furthermore, the intelligence of most classical cretins is not raised to a normal level by treatment with desiccated thyroid. Perhaps these old observations are responsible for the lack of recognition of cretinism as a cause of mental retardation in a recent comprehensive article on the prevention of mental retardation.[8] It is the purpose of this report to renew interest in thyroid hormone deficiency as a preventible cause of mental retardation by summarizing some of our research findings on this subject during the past three years.

Brain Growth

Although a great deal of growth of the human cerebrum occurs between the second and ninth month of intrauterine life,[9] total brain weight is only 20 to 30 per cent complete at birth. Figure 1 shows that the brain rapidly approaches maximum weight during the first seven years of extrauterine life.[16]

If a child is born without a thyroid gland or if a newborn monkey is totally thyroidectomized at birth, the resultant deficiency of thyroid hormone leads to marked retardation in skeletal growth and growth of intelligence.[6]

Hypothyroidism in Early Childhood

In a recent review of thirty-six proved cretins at Lapeer and Coldwater State Home and Training Schools, we found many cretins with intelligence quotients of zero. The arithmetic mean I.Q. was 25. Figure 2 shows that when these cretins were put on desiccated thyroid on admission to these institutions, although the majority of subjects showed some increase in mental age, the maximum mental age achieved was eight years even when subjects were followed up to fifty-one years of age. The average age at which the diagnosis of cretinism was made, however, was four years. The average age at which desiccated thyroid was started was eight years. Figure 1 shows that the average cretin in these institutions lacked thy-

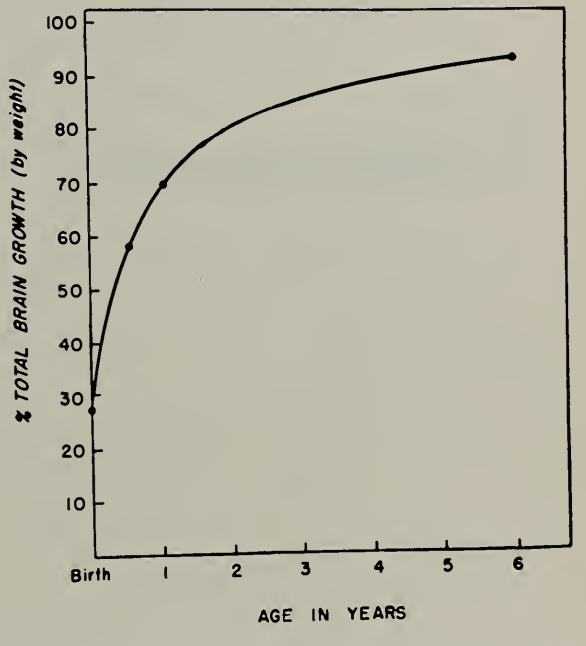


Fig. 1. Rate of postnatal increase of brain weight. (Courtesy, Fisher and Pickering, Pediat. Clin. North America, 864, (Nov.) 1957. W. B. Saunders, Co., Philadelphia.)

Dr. Aster's present address is Department of Medicine, Massachusetts General Hospital. Dr. Raman's present address is Health Training and Research Center, Pasighat, N.E.F.A., Assam, India.

From the Department of Internal Medicine and the Thyroid Research Laboratory, Kresge Medical Research Building, Medical Center, University of Michigan Medical School, Ann Arbor, Michigan.

Presented at the annual meeting of the Michigan Association for Retarded Children, Albion, June 27, 1958.

This work was supported by grants from the United States Public Health Service M-2399, Atomic Energy Commission Project 15, Research and Service in the Utilization of Human Resources Fund-Thyroid Hormone Research, American Cancer Society Institutional Grant and the Michigan Memorial Phoenix Project.

roid hormone at the critical time for most of his brain growth. Apparently, if this thyroid hormone deficiency is relieved after the first few years of life, it is too late to promote the development of

For this information, we surveyed forty-nine cretins seen at the University Hospital[5] and thirty-six cretins seen at Lapeer and Coldwater State Home and Training Schools. The survey methods

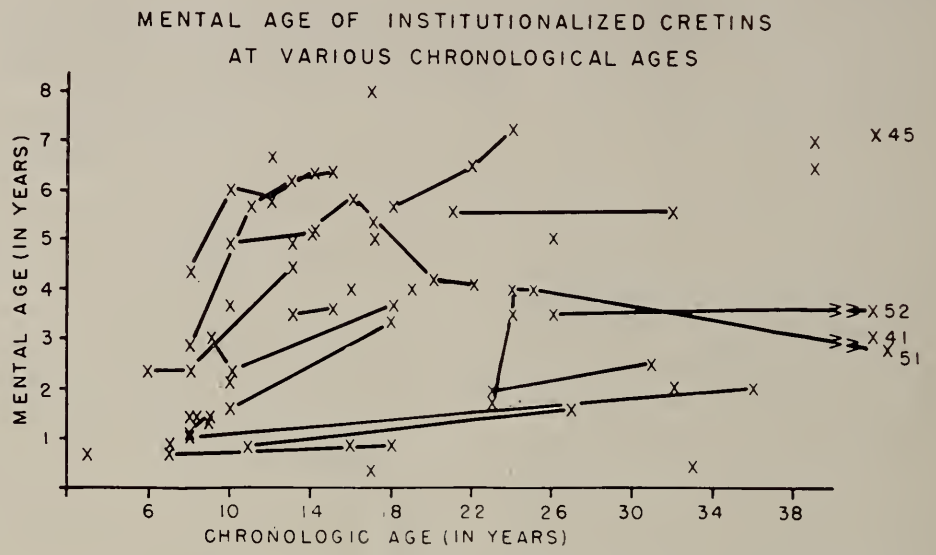


Fig. 2. Mental age of institutionalized cretins at various chronological ages on thyroid medication.

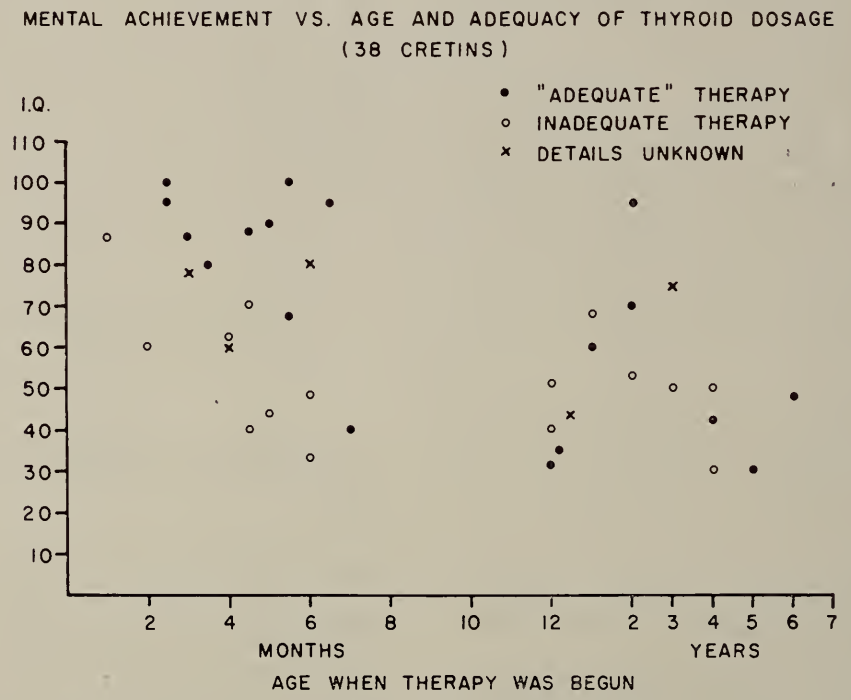


Fig. 3. Plot of I.Q. attained by cretins vs. the time at which treatment is started.

normal intelligence. The next question then is, "How can congenital hypothyroidism be recognized earlier?" If the disorder is recognized earlier and treatment is started earlier, is the end result better?

were: review of all previous hospital records of the cretins, review of parents' records of the children, complete medical history and physical examination of the affected child, and the performance of a basal metabolic rate, serum cholesterol, serum

protein-bound iodine, and 1, 2, 5, and 24-hour I^{131} uptake determinations.

Figure 3 shows that when the eventual I.Q. attained by a University Hospital cretin is plotted

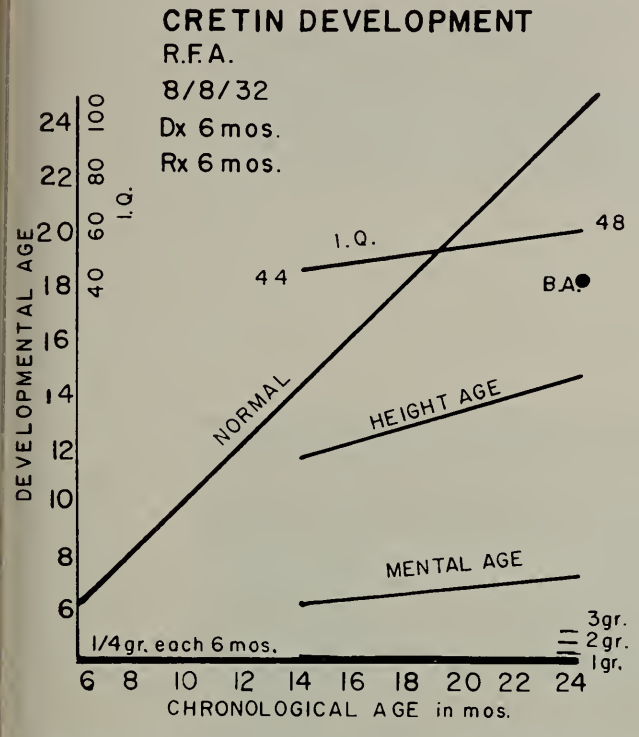


Fig. 4. An example of subnormal development when desiccated thyroid is given in inadequate dosage.

against the age of the child at the time diagnosis was made and treatment with desiccated thyroid was started, that the generalization can be made that the earlier treatment is instituted, the higher the eventual intelligence attained.

The dosage of desiccated thyroid used is also of importance. Figure 4 shows the subnormal development of mental age, height age, and I.Q. when small doses of desiccated thyroid were used in treatment of a cretin.

On the other hand, Figure 5 demonstrates the optimum type of response of these indices when larger doses of desiccated thyroid were used in the treatment of another cretin. These findings have recently been made independently by Smith.[12]

Early diagnosis is important, then, but how can the diagnosis be made early? The diagnosis of cretinism characteristically is made late because the classical features, such as protruding tongue, pot belly, and obvious retardation do not become recognizable as a rule until three to six months of age. In our review of eighty-five cretins, we found that some features are recognizable at birth, and some features occurring in the first few weeks after birth may tip off the prewarned physician that the child is hypothyroid (Table I).

We also found that the conventional tests of

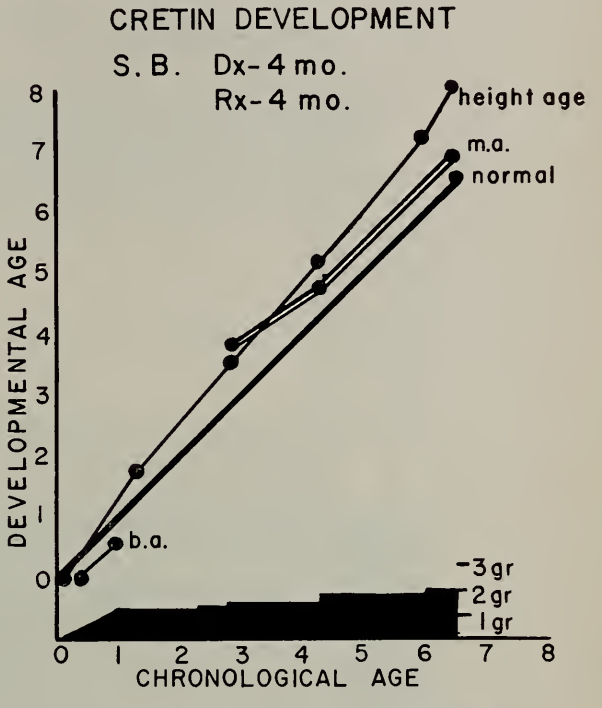


Fig. 5. An example of optimum development when desiccated thyroid is given in adequate dosage.

TABLE I. CLINICAL FINDINGS IN CRETINS

At Birth:
1. Umbilical hernia
2. Prolonged cyanosis
3. High birth weight (over 9 lbs.)
Post-Natal: (In order of appearance)
1. Feeding difficulty
2. Retarded growth
3. Prolonged icterus neonatorum
4. Respiratory distress with cyanosis
5. Constipation
6. Lethargy and somnolence
7. (Anemia)
8. Dry skin
9. Hypothermia
10. Bradycardia
11. "Classical" cretinoid features

thyroid function, the BMR and serum cholesterol, were of little value for early diagnosis. It is impractical to perform a BMR on a newborn. The serum cholesterol, as shown in Figure 6 does not become elevated until later.

Figure 7 shows that the alkaline phosphatase, when subnormal, is a helpful test in the detection of hypothyroidism, presumably because bone growth is subnormal when thyroid hormone is deficient.

Figure 8 shows that the serum protein-bound

iodine was quite uniformly subnormal at early ages. The 24-hour I^{131} uptake was also uniformly lowered in the cretins tested. Bone growth was usually retarded.

the most revealing laboratory tests to confirm the clinical suspicion of hypothyroidism, can make this diagnosis earlier and start treatment earlier. This diagnostic and therapeutic program should

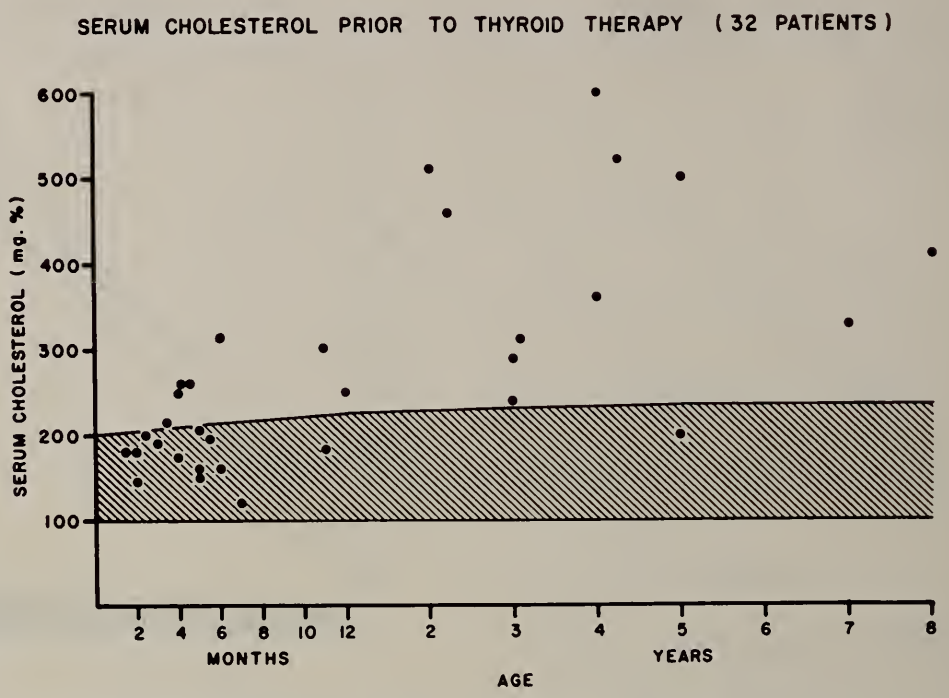


Fig. 6. Cholesterol values in cretins at various ages compared to the normal range of values. The cholesterol level rises late in the congenitally hypothyroid child.

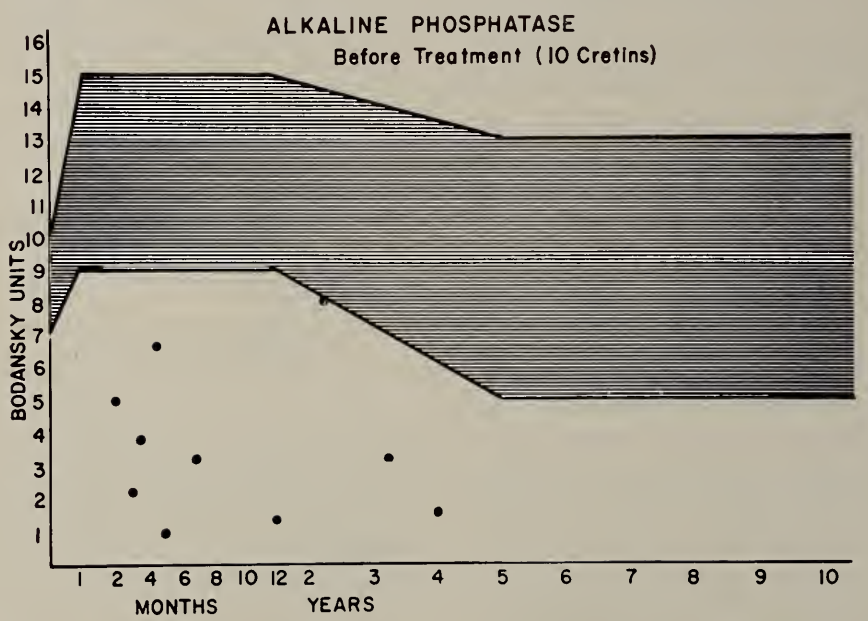


Fig. 7. The alkaline phosphatase level in cretins compared to the normal range. This test is helpful in detecting congenital hypothyroidism.

We believe, therefore, that the physician familiar with the early diagnostic features of congenital hypothyroidism, and able to intelligently select

produce the development of normal mental age in the affected child.

We found two bits of evidence, however, which

suggested that we should turn our attention to the environment of the child before his birth, for an attempt at optimum prevention of mental retardation associated with deficiency of thyroid hormone. First of all, some cretinous children who developed intelligence quotients within the normal range after prompt and adequate thyroid therapy, still had intelligence quotients significantly lower than the quotients of both parents. Secondly, whereas the normal child has a distal femoral epiphysis and a talus bone present in the leg at birth (Fig. 9a), the cretin usually has not yet developed these bones (Fig. 9b).

We then posed three questions to answer about intrauterine thyroid hormone deficiency: If the mother is hypothyroid, will she drain off enough thyroid hormone from the fetal circulation to cause retardation of fetal development? If the fetus has an underactive thyroid gland, will he concentrate enough of his mother's circulating thyroid hormone through the placenta to promote his normal development? Lastly, if the birth of a cretin could be predicted, could the mother be given enough desiccated thyroid to produce a net transfer of thyroid hormone across the placenta from the mother to fetus sufficient to allow normal development of the fetus?

We have accumulated two bits of evidence bear-

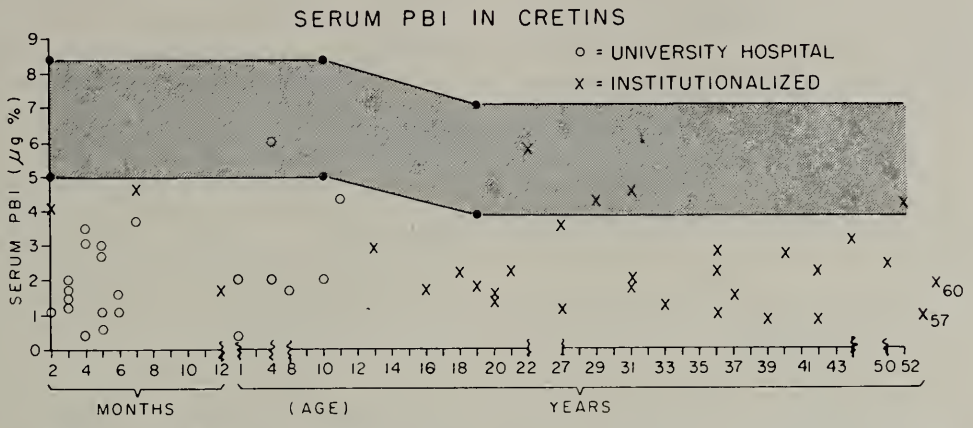


Fig. 8. The serum protein-bound iodine was quite uniformly subnormal in cretins at the ages tested.

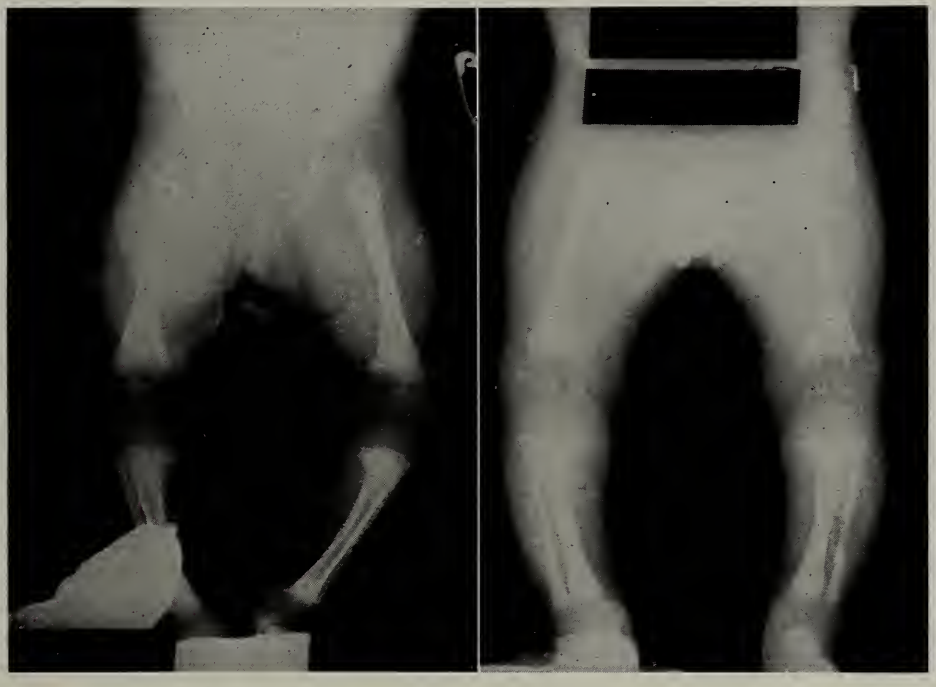


Fig. 9. (a) The distal femoral epiphysis and talus are normally present at birth. (b) These bones are usually absent from the leg of a newborn cretin.

ing on the first of these questions. In a comprehensive survey of the thyroid function of sixteen mothers of cretins, all but one of the mothers were euthyroid.[3] It is unlikely, therefore, that

We have recently applied this last bit of information to human beings.[3] A woman who had already given birth to two cretins, and therefore, according to information gained in our survey of

TABLE II. EFFECT OF SURGICAL THYROIDECTOMY ON THE MOTHER DOG AND EFFECT OF FORCED FEEDING OF DESICCATED THYROID TO MOTHER ON MATERNAL AND FETAL SERUM PBI CONCENTRATION

Number of Dogs	Treatment	Maternal PBI at Delivery (ug%)	Newborn Pups			
			PBI (ug%)	Inorg. Iodide (ug%)	Thyroid / Muscle I^{131} conc.	Mean Thyroid Wt. (mg.) / Body Wt. (g.)
4	None	2.1*	3.2	—	2940† (2250-3650)	0.19
5	Thyroidectomized 9 to 50 (mean 33) days before delivery	1.3*	3.7	—	2800 (2350-3250)	0.19
1	Thyroxine fed	17.3	6.1	<10	2760	0.17
1	Thyroxine fed	25.0	—	—	433†	0.21
1	Thyroxine fed	25	7.3	>10	—	0.27
1	Thyroxine fed	50	16.8	0.4	—	0.15
						0.20

*Signif. difference ($P<.05$)
†Signif. difference ($P=.05$)

hypothyroidism in the mother is the usual cause of fetal hypothyroidism. Table II adds further evidence we have gained from work on pregnant dogs.[3]

When pregnant dogs were thyroidectomized, the fetal serum concentration of PBI was normal at delivery while the maternal serum PBI dropped to a hypothyroid range of values. These data do not prove that the hypothyroid mother drains no thyroid hormone from the fetus, but they do indicate that the mother does not drain enough thyroid hormone from the fetus to normalize her deficient blood concentration of thyroid hormone. The hypothyroid mother also does not drain enough thyroid hormone from the fetal circulation to decrease the serum concentration of thyroid hormone in the fetus.

We have no information as yet on the reverse situation, i.e., the hypothyroid fetus and his use of maternal thyroid hormone. It is probable, however, that the usual cause of cretinism is fetal thyroid hypofunction with inadequate maternal thyroid hormone in the fetal circulation available for fetal use.

Table II also supplies information on the last question. It can be seen that when the mother dog is fed excessive doses of desiccated thyroid, her serum PBI rises and the fetal serum PBI also rises.

eighty-five cretin families, was likely to give birth to a third cretin, was started on desiccated thyroid before she became pregnant for the third time. As the dosage of desiccated thyroid was raised during pregnancy to 22 grains per day, her serum PBI level rose to high levels. The serum butanol extractable iodine, BEI (or "thyroxine-like iodine")[7] rose also.

At birth, the fetal BEI was normal. Roentgenograms of the leg showed normal bone maturation. A fall of the serum BEI to subnormal in five days after birth, however, and a subnormal I^{131} thyroid uptake test after TSH stimulation proved that the child had true primary hypothyroidism. This evidence indicates that the birth of a cretin was predicted and normal intrauterine growth apparently was produced in spite of the fact that the fetal thyroid function was subnormal.*

Lastly, we have produced some evidence that congenital hypothyroidism may be a more common cause of mental retardation than was formerly suspected. We know that some sporadic[11] and most endemic cretins[4] have thyroid glands. When we performed I^{131} uptake tests on thirty-six cretins at Lapeer and Coldwater, we demonstrated that one-third of these cretins had thyroid glands. Ap-

*This child returned at one year of age and had normal intelligence.

parently, insufficient thyroid tissue in the neck of cretins can respond to endogenous TSH stimulation by regenerative functional hypertrophy and hyperplasia since older cretins have been described with normal serum protein-bound iodine values,[14] goiters,[13] and even the classical picture of thyrotoxicosis.[1] It is logical to hypothecate, therefore, that a cretin with thyroid tissue could acquire irreparable mental retardation from lack of sufficient thyroid hormone *in utero* and during the first year or so of postnatal life, and then grow enough functional tissue to produce quantities of active thyroid hormone sufficient to prevent or erase the overt stigmata of cretinism except for irreversible brain damage, manifested as mental retardation and deafness or deafmutism. If this phenomenon happened in many individuals in a severe endemic goiter area, an observer might find in such an area an increased incidence of "feeblemindedness apart from cretinism . . .",[15] but actually caused by temporary hypothyroidism during the critical period of brain growth. To investigate this possibility, we studied sixty-four members of nineteen families[10] in a native village in the Northeastern Frontier Agency of India because the population of this village was characterized by a high incidence of goiter, deafness or deafmutism, mental deficiency, and cretinism. Goitrous subjects had lower serum concentrations of thyroid hormone than non-goitrous subjects. Deaf subjects had lower concentrations than non-deaf subjects. Totally retarded, non-cretinous subjects had lower concentrations of thyroid hormone than non-retarded subjects. In other words, although subjects in this goiter area with overt evidence of mental retardation did not appear to be hypothyroid, the lowered serum concentration of thyroid hormone demonstrated that they were indeed hypothyroid.

The evidence of goiters in the N.E.F.A. area of India today is similar to the incidence of goiter in the upper half of the lower peninsula of the State of Michigan in 1925 before the use of iodized salt was instituted.[2] The incidence of goiter in the northern peninsula of Michigan greatly exceeded the incidence of goiter in the area of the India study. Unfortunately, we have no record of the incidence of deafness, deafmutism, mental deficiency, or cretinism in the State of Michigan at that time, or today after thirty-five years of the use of iodized salt. If the incidence of these defects increases in proportion to the incidence of endemic goiter, as the Study Group on Endemic Goiter of the World Health Organization concluded, then it is reasonable to suspect that the incidence of these defects was at least as high in the upper part of the State of Michigan in 1925 as in the N.E.F.A. study today. This information would suggest that temporary hypothyroidism early in childhood might be a more common cause of mental deficiency and deafness than is recognized at present. If iodine deficiency were the only cause of this temporary hypothyroidism in an endemic goiter area, it would be expected that the availability of iodized salt to mothers in the State of Michigan would eliminate this cause of temporary hypothyroidism today. We know of no study in the State of Michigan where serum PBI and BEI determinations systematically have been made routinely at birth, or in apparently euthyroid young children with goiters, deafness, deafmutism, or mental deficiency to prove or disprove that the correction of iodine deficiency in the diet of inhabitants of Michigan has eliminated temporary hypothyroidism as a cause of goiter, deafness, deafmutism. and mental deficiency.

Summary

We have summarized some pertinent findings of our research on cretinism during the past three years that bear on the problem of mental retardation. Cretins institutionalized at Coldwater and Lapeer State Home and Training Schools had a mean I.Q. of 25. The average age at which their diagnosis of cretinism was made, however, was four years. They were started on thyroid at an average age of eight years. The most critical periods of brain growth are during intrauterine development and in the first few years after birth. The earlier cretins were diagnosed and treated at University Hospital, the higher the I.Q. attained. Careful review of eighty-five cretins in the State of Michigan enabled us to recognize certain clinical findings and laboratory tests that will enable the physician to recognize the presence of congenital hypothyroidism much earlier than usual. Even optimum postnatal treatment did not produce I.Q.'s as high as the parents, however. Also, most cretins at birth show retardation of skeletal growth.

For these reasons, the possibility of maternal hypothyroidism causing fetal hypothyroidism was investigated in the human and in the dog. It was concluded that maternal hypothyroidism is not a significant cause of fetal hypothyroidism. Evidence was produced in the dog and human beings that when large doses of thyroid are given to the moth-

er, substantial quantities of thyroid hormone may be transmitted across the placenta to the fetus.

Lastly, studies of serum thyroid hormone concentration in a severe endemic goiter area in India suggest that temporary congenital hypothyroidism might be a much more common cause of mental retardation than previously suspected.

References

1. Bartels, E. C.: Hyperthyroidism developing in a cretin. S. Clin. North America, 25:672 (June) 1954.
2. Brush, B. E., and Altland, J. K.: Goiter prevention with iodized salt: Results of a thirty-year study. J. Clin. Endocrinol. & Metab., 12:1380 (Oct.) 1952.
3. Carr, E. A., Jr., Beierwaltes, W. H., Raman, G., Dodson, V. N., Tanton, J., Betts, J. S., and Stambaugh, R. A.: The effect of maternal thyroid function on fetal thyroid function and development. J. Clin. Endocrinol. & Metab., 19:1 (Jan.) 1959.
4. Costa, A., Cottino, F., Ferraris, G. M., Marchis, E., Marocco, F., Mortara, M., and Pietra, R.: Nouvelles Acquisitions sur L'Equilibre Endocrino-Metabolique du Cretinisme Endemique. Ann. d'Endocrinologie, 14:995, 1953.
5. Lowrey, G. H., Beierwaltes, W. H., Carr, E. A., Jr., Aster, R., Raman, G., and Spafford, N.: Early diagnostic criteria of congenital hypothyroidism: A comprehensive study of forty-nine cretins. AMA J. Dis. Child., 96:131 (Aug.) 1958.
6. Lusted, L. B., Pickering, D., Fisher, D., and Smyth, F. S.: Growth and metabolism in normal and thyroid-ablated infant rhesus monkeys (Macaca mulatta) V. Roentgenographic features of skeletal development in normal and thyroid-ablated infant rhesus monkeys (Macaca mulatta). AMA J. Dis. Child., 86:426 (Oct.), 1953.
7. Man, E. B., and Bondy, P. K.: Editorial Reviews: Clinical significance of serum butanol-extractable iodine. J. Clin. Endocrinol. & Metab., 17:1373 (Nov.), 1957.
8. Masland, R.: Part II. The prevention of mental retardation. AMA J. Dis. Child., 95:3 (Jan.), 1958.
9. Patten, B. M.: Human Embryology. 2nd ed., pp. 364-365. New York: Blakiston Co., Inc., 1953.
10. Raman, G., and Beierwaltes, W. H.: Correlation of goiter, deafmutism and mental retardation with serum thyroid hormone levels in non-cretinous inhabitants of a severe endemic goiter area. J. Clin. Endocrinol. & Metab., 19:228 (Feb.) 1959.
11. Reilly, W. A.: Goitrous hypothyroidism. Pediat. Clin. North America, p. 849 (Nov.) 1957.
12. Smith, D. W., Blizzard, R. M., and Wilkins, L.: The mental prognosis in hypothyroidism of infancy and childhood. Pediat., 19:1011 (June), 1957.
13. Stanbury, J. B.: Cretinism with goiter: A case report. J. Clin. Endocrinol., 11:740 (July) 1951.
14. Stanbury, J. B., Brownell, G. L., Riggs, D. S., Perinetti, H., Itoiz, J., and Del Castillo, E. B.: Endemic Goiter, The Adaptation of Man to Iodine Deficiency, Cambridge, Mass.: Harvard University Press, 1954.
15. Study Group on Endemic Goiter: Final report. Bull. World Health Organ., 9:293, 1953.
16. White House Conference on Child Health and Protection: Growth and Development of the Child. Part II. Anatomy and Physiology. New York: Century Co., 1932.

University Hospital
Ann Arbor, Michigan

"DOCTOR'S DAY" AND "HOSPITAL DAY"

Gilbert B. Saltonstall, M.D., president of the State Medical Society, was honorary chairman of "Doctor's Day" and "Hospital Day" held at the University of Michigan Medical Center. Dr. Saltonstall presided over the University of Michigan's first professional "Doctor's Day" on Saturday, May 16.

The day-long program started at 9 a.m., and included reviews, current research activities, special clinics in each department, closed-circuit television broadcasts of surgical procedures and tours of the Medical Center. Vice President Marvin L. Niehuss addressed the group at the Saturday luncheon.

On Sunday, May 17, the Outpatient Building on the east end of the Medical Center was the focal point of "Hospital Day," with a public open house scheduled from 2 to 4:30 p.m. Frederick C. Matthaei of Ann Arbor, who won election to the Board of Regents last month, was honorary chairman of "Hospital Day." Mr. Matthaei donated the University of Michigan Hospital chapel a few years ago and has long been interested in hospital affairs.

Planned to observe the ninetieth anniversary of University Hospital, the open house gave visitors a view of much of the equipment used in modern medical care. About eighty special exhibits and demonstrations occupied six floors of the Outpatient Building.

Psychologic Factors in Gynecology

By H. T. Schmale, M.D.
Ann Arbor, Michigan

TO tackle such a problem as the psychologic aspects of gynecology in the short time available to us is, of course, impossible. Therefore I shall try to limit my discussion to several aspects which will be more in the nature of highlights than any detailed discussion. The things I would like to comment on briefly are: first, the problem of psychosomatic diagnosis, the use of this term and the present status of "psychosomatic medicine" in our hospitals; second, to deal very briefly with the problem of a true psychologic disease—namely, frigidity—and some of the factors involved in this very prevalent disorder; finally, to make a few comments on problems of relationships between doctor and patient as they are seen in the gynecologic clinic and in gynecologic practice.

Since it is impossible or, rather, since it requires great temerity, to embark upon a discussion of female psychology, I shall first beg the question by moving to something far afield. I would like to draw your attention to a study reported by Stuart Wolff in a non-medical journal, *The Saturday Review of Literature,* January 5, 1957. He stated that recent statistics show the present status of some of the diseases which have occurred in veterans who were imprisoned in both theaters, the European and the Pacific, in the last war. This study states that approximately 94,000 United States prisoners of war were taken in Europe. These men were imprisoned about ten months. Less than 1 per cent died before liberation. In contrast, in the Pacific Theater about 25,000 Americans became prisoners of war. They remained in prison four times as long as those captured in Europe and suffered far more than any others from the effects of threats, abuse, and humiliation. Their demoralization was often extreme. Over one-third died before liberation.

Six years after liberation, those who survived the Japanese prison experience were re-examined. In the first place, the total number of deaths in this group during these six years was more than twice the expected incidence for a similar group of persons not so exposed, and three times as great as the group of United States prisoners of war in Europe. The causes of death included many diseases not directly related to confinement or starvation. Nine times the expected number died of pulmonary tuberculosis; twice the expected number died of heart disease; more than twice the expected number of cancer; and more than four times the expected number of diseases of the gastrointestinal tract; twice the number from suicide; and, most strikingly of all, three times the expected number of deaths as a result of accident.

I think that this information enables us to see the validity of a broader approach in medicine which would include a larger framework in which to view illness. In such a framework, the problems of adaptation, human ecology, and the effect on disease of privation and the forcing of the organism back to more primitive responses can be seen. It is not my purpose to discuss this problem further except to draw it to your attention as a very basic factor in the understanding of psychosomatic medicine.

It is my thesis that psychosomatic medicine, as viewed in the framework of ecology, is concerned with responses which are far beyond the usual psychologic responses of anxiety and may better be discussed in using such a term as *organismic distress.* It is here that I feel that the problem of psychoses, the problem of chronic disease, of hypertension, et cetera, may be related. However, in general practice, our use of this term has become a hybridization and bastardized term which embraces all sorts of emotional disorders and is used because it has a more "scientific sound." It seems to me that we should rigorously restrict this term and use it in regard to diseases of "unknown etiology" which have both an organic and emotional factor (or which we suspect have) and reserve the term, bad as it still sounds, *neurosis,* for those disorders which are more purely psychologic in the sense that their psychologic roots can be more easily determined. It is, of course, a truism that these fields overlap tremendously.

I think it would now be possible for us to narrow

Presented at the Michigan Clinical Institute, Detroit, March 21, 1958.

our frame of reference to a discussion of frigidity. This disorder has been estimated by Weiss and English to occur at least in 50 per cent of the married women. Other estimates make it much higher. Physical and constitutional factors may of course be presented in frigidity but these, it seems to me, are the least important.

Frigidity is an example of a psychologic entity which, due to basic unconscious infantile fears, inhibits the functioning of the sexual apparatus. Surprisingly little time and attention is given in our instruction of medical students to this vital aspect of human functioning which perhaps can best be understood by the man when stating that it is analagous to impotence. Basic difficulties in the woman usually relate to strong aggressive impulses which have had to be inhibited by the very fact that the little girl is not allowed to express these. Masculine strivings are usually also present. Revenge fantasies and specific traumatic events may also contribute to the causation of this condition. However, the point I would like to bring up for your consideration is the essential difference between this inhibition in the male, where it becomes a very distressing symptom, and in the female, where it can be hidden.

Because the woman can, by hiding her frigidity, continue to function, to bear children, much of the symptomatology developed about the basic frigidity is because of secondary elaborations and the bulwarks of defense and conflict that result. An increasingly difficult factor, at present, is that our culture demands the type of sexual performance which has been described in sex manuals and popular literature, performance which is often not compatible with the actual relationship that the woman experiences. This creates further feelings of inadequacies and difficulties.

The treatment of frigidity is primarily a job for psychiatrists. I know of no easy short cuts which can be applied in the gynecologic clinic and I would warn against such devices as the use of testosterone medications and emphasis on technical alterations in the marital act. I feel that these people can best be helped by psychiatrists since this is one of the disorders that does respond fairly well to psychiatric treatment. First, this is complicated by the difficulty of referral, an area in which I think the gynecologists can be most helpful by explaining the fact that this is a psychologic rather than a physiologic problem; and second, it is complicated by the fact that in the interreaction between marital partners, much of the symptomatology may be related to a finding that both partners have marked neurotic conflict, and the marriage is a result of a compromise solution of the two neuroses.

Now we hurry to the third point—the problem of relationships between the doctor and the patient in a gynecologic clinic. All of the factors that apply, in general, to doctor-patient relationships could be enumerated here and I am certainly not one to feel that consideration and care for patients is a prerogative of psychiatrists. There are many good internists, neurologists, and surgeons who are far more concerned and considerate of their patients than are some psychiatrists. However, in addition to the usual problems of doctor-patient relationships, there is the problem in many cases of the sexual difference between the doctor and the patient. It is this point that makes some women feel very misunderstood in gynecologic practice. For instance, when she is in the ninth month of pregnancy and the doctor presumes to say, "I know exactly how you feel," she is quite sure that he does not. Nor is it quite possible for a member of one sex to empathize completely with a member of the opposite sex. However, within this framework, and with a constant respect for the individual's right to know what she feels, several points may be made. In cases of difficulty in gynecologic work, the chances of the doctor being blamed are much greater than they are, it seems to me, in the general practice of medicine. Because of the intimate nature of the experiences through which women pass who have to go to gynecological clinics there is a very strong relationship developed with the doctor. In one case he will be the magical figure who brings the baby to her and to whom she attributes tremendous power when things go well. If things go badly, the gynecologist is a figure upon whom she projects all of her difficulties and all her hostility and he is always responsible in her mind for such problems as miscarriage or natal mortality.

With the things I have mentioned taken as a given added factor in the practice of gynecology, I would like to speak about some of the factors involved when crises develop. Of course, basically this resolves into problems within the doctor and problems within the patient.

I think that anyone who has worked in a teaching hospital is soon impressed by the development of what might be called the "embryo doctor's bedside manner." This develops partly from his didac-

tic instruction but more from his identification with a multitude of people with whom he has come in contact and especially his more recent identifications with those of his instructors with whom he works on the wards. In times of crisis the doctor usually falls back on what might be called his habitual bedside manner. Four general classifications might be described briefly according to an outline by Grete Bibring: one would be the good, warm, understanding doctor who has an image of himself as a helper and indeed does very well until he meets patients who are hostile and querulous. Another standard type perhaps has the "stoney, reserved, all-powerful attitude" about him. A third type might be described as the jovial, slightly-teasing type; this kind of individual often finds himself in the greatest difficulties in the gynecologic clinic where this attitude can make his woman patient feel very uncomfortable or can allow her to misinterpret it as being very erotically tinged. Finally, as a fourth category, the charming captivating attitude is often used. Now, to counteract these major types (which I wish I had time to illustrate more clearly for you) we might divide patients into three general groups: the dependent-demanding type, the hostile-querulous type, and the over-concerned and worrying patient.

The difficulties arise when the habitual mode of reaction of the doctor does not fit with the habitual mode of reaction of the patient. Therefore, a hostile-querulous individual is not going to get along very well with the doctor who uses a stoney, reserved, all-powerful attitude. Dependent-demanding patients do not get along well with the doctor who uses "good and warm understanding" because their needs seem to be insatiable. Over-concerned and worried patients do not respond well to any jovial or teasing attitudes. Therefore, it seems to me, the essential problem is to have in mind, as we all do, somewhat of a diagnostic gauge for determining the classification of our patient and relate this with some introspection to our own attitudes. By our introspection and our ability to discuss such things with our colleagues, many of the difficulties which arise can be anticipated before they start and the doctor's capacity to treat his patient is much enhanced by his increased flexibility.

This does not necessarily mean an extensive self-analysis, nor does it indicate a need for psychiatric intervention. These attitudes, I believe, are not necessarily very deep ones and can be within the purview of our ordinary everyday emotional interreaction and, as such, are changeable to a degree. Such willingness for self-evaluation and the ability to modify our own behavior should forward our growth as sound physicians.

HEALTH CARE BENEFITS FOR FEDERAL EMPLOYES

At their annual conference last week Blue Shield Medical Care Plans renewed their support of legislation which would lend assistance to the financing of health care benefits for Federal employes. The national Government is the largest employer which does not now provide some form of health benefits for its employes. This form of fringe benefit has become a condition of employment for a large segment of the population, and in this respect the Government has fallen behind the times in making provision for the better health care of its employes. Blue Shield Plans (and Blue Cross Plans) are presently serving hundreds of thousands of Federal employes by providing them with a prepayment mechanism which, lacking a Government contribution, is being paid for out of the employe's own funds. We believe that these hundreds of thousands of Government employes who are now participating in Blue Shield programs give clear testimony to the need for all Government employes to enjoy similar protection against the cost of ordinary or catastrophic illness expense.—Donald Stubbs, M.D., Washington, D. C., in Statement of Blue Shield Medical Care Plans before the Committee on Post Office and Civil Service, United States Senate, April 21, 1959.

Editorial

WHAT WILL BE MEDICINE'S FUTURE?

The Annual Conference of the Blue Cross and Blue Shield Plans, National and International, occurred at Miami Beach, Florida, April 12-16, 1959. This was the largest conference with the most delegates ever assembled. The doctors, directors of both groups, and their co-workers were dedicated people willing to listen to committee and other reports, to meet in conferences and to plan for the future—whatever it may bring. Both Plans, Blue Cross and Blue Shield, are loosely grouped into a national organization, each group representing local plans—statewide or less. Each in its own way has worked out a solution to the problem of prepaying and budgeting for medical and health services. All know they are inadequate in a very significant field. Each group, Blue Cross and Blue Shield, is still an assembly of delegates from various component parts which are self-sufficient and each the solution of a local situation, but not unified throughout the nation.

Blue Cross antedated Blue Shield by a very few years. During the years of the depression, it became evident to doctors and to hospital administrators that the vast majority of people could not finance a serious illness without calamity striking. Nature has a way of solving "unsolvable" problems. The need, the worry and the desperate conditions stimulated a few pioneer souls in many spots throughout the nation to evolve a completely new concept of the doctor's and the hospital's responsibility to their patients. The Blue Shield voluntary prepayment idea was evolved and created by a few deep thinking individuals in hundreds of areas throughout the land. They planned policies and schemes by which the people (patients) could pay for their medical and hospital needs by all joining together—all contributing —and the one in need benefiting. These pioneers added economic and financial advice to the other things being done to care for sick people. The public was taught to budget for medical and health services before they were needed rather than desperately trying to pay after a calamity had fallen. These plans were all different but all directed to a common service.

Medical and Health Services

The first ten or twelve years' experience demonstrated the complete feasibility and acceptance of a program which had been so desperately needed. No one should forget a conference with the late Senator Vanderberg, a half-day devoted to answering questions—and he knew how to ask them, too. At the conclusion of the session, he commented that without knowing it we had established a "public service trust"; we had taken $50 million of the people's money and spent it for them. We had demonstrated that if allowed, medicine can solve its problems and can give the people the health care they are demanding, while other groups are trying to force compulsory medical service upon the nation. He said that as long as we could make these programs work we would not have socialized medicine, but should we fail, socialized medicine could come within a year or two and would.

A feeling has been growing among pioneer medical thinkers—medical statesmen—that Blue Cross and especially Blue Shield are ready for new dresses. People are again demanding extra services which are not available. Labor leaders, politicians, bureaucrats are all making plans for a much more complete medical and hospital coverage than is now being offered. Suggestions have been made by our own directors during the last several years to continue to offer the services now covered in the various Blue Shield programs, but to provide riders which could include under different groupings, complete medical and health services—home, office and hospital. Blue Cross and Blue Shield could supply all the health services which are being demanded through the prepayment principle.

Labor leaders, politicians, governmental agencies, study committees and commissions have claimed that service limits were too narrow, and that home and office care—in fact, all care should be available to those who wish to pay for it. Doctors throughout the country are working the same as they have been in Michigan attempting to find the answers to these demands.

Big labor threatens to set up closed panel or-

(Turn to Page 944)

The Norm is Shocking!

President's Message



For twenty years, Michigan Medical Service has been a very real part of medicine in Michigan. During that time, hundreds of millions of dollars have been paid by the people of Michigan to MMS and it has in turn paid the doctors for the care they have rendered to their millions of patients.

It sounds easy. But the process described above has required millions of man hours, millions of pieces of paper, and millions of opportunities for trouble.

These latter millions are compounded when changes are made . . . and we have seen constant change since the inauguration of Blue Shield.

Frankly, we have been lucky in Michigan, for it comes as something of a shock to all of us when there appears a major divergence of opinion among our members on matters relating to Michigan Medical Service. It just hasn't happened here for many, many years even though it is a normal situation in some other states. These differences of opinion are bound to arise when many different people are affected in many different ways by every policy adopted and every policy change.

But the important thing is this: Everybody is really after the same thing—Good Medical Care at Reasonable Cost. And as long as the control of the situation lies in the hands of members of MSMS, we can be reasonably confident that that goal is not going to be lost sight of, as we engage in a little tugging and hauling to determine the ways and means of arriving there.

It is mighty important that we can have such confidence, for if *we* lose sight of the goal—*everybody* loses.

Delbert B. Dallenbach

President, Michigan State Medical Society

ganizations; government threatens through pending legislation to set up compulsory insurance programs; others threaten to extend our social security medical and surgical benefits and senior citizen care through increased deductions from wages and salaries by increasing the social security tax. This additional bite out of the field of independent medical practice would convert another 15 million or so persons into compulsory government health insurance, not administered by the doctors as our Blue Cross-Blue Shield programs are, but by bureaucrats and politicians who will dictate terms, hours and services.

The American Medical Association, at its meeting in December, pledged care for "persons over sixty-five with restricted and inadequate incomes." At its original inception, Blue Shield accepted these people in groups and never cancelled their contracts on account of age. The plans are now willing to accept subscriptions also in the older age group. Adequate programs have been suggested whereby the medical attention can be given with slightly reduced payments—but suitable ones. The success of this plan depends completely and entirely upon the willingness of the doctors to accept the responsibilities and (in this limited group) being willing to work for what is available.

COME, MIRACLE!

Blue Shield must have a new birth. More benefits and more areas of service are being demanded, schedules of payment and premium rates have been studied and are being restudied. For the past two or three years, a complete new program has been evolved in Michigan. Every doctor and every specialist society was asked to co-operate in setting up schedules and fees which they would be willing to accept for those persons actually under the income limit. Fee schedule committees are still working. The House of Delegates instructed that a Michigan Relative Value Scale be established but that pending that action, a modified California Relative Value Scale be used. Some of our specialty societies and doctors failed to help in setting up these schedules but promptly complained of the temporary schedules which were established. The fee schedule committees are still working on an adequate relative value scale and still hope the doctors will co-operate and help develop a workable program which could be accepted by all.

The consensus of the many hundreds of delegates to the Blue Cross-Blue Shield Conference at Miami Beach was that dictated compulsory medical services taken out of the governing hands of the medical profession is a possibility in the very near future. Blue Cross and Blue Shield representing the hospital group and the medical profession, can solve the problem, but only with the co-operation of the doctors who will be rendering the service, and the hospitals which also have a very critical responsibility. Working together, each helping, can work miracles—and we need a miracle!

TO CORRECT MISINFORMATION AND MISAPPREHENSION

A critical discussion before a group of younger doctors at the MCI Session in Detroit, March 10-14, 1959, spotted a frequent and serious criticism of Michigan's M-75 new Blue Shield program. It was alleged that a wife or employed person who earns a smaller income can, and is, allowed to apply for the family benefit coverage. A protest that such subscription and benefits would be governed by the major income of the family was immediately denied and a case cited: the office nurse of a doctor, earning $4,000 a year, is said to have called "headquarters" and to have been told she could subscribe under plan B (less than $5,000) for herself and family. She said her husband earned $8,000 and was told "that made no difference." Inquiry among many well-informed doctors (several being members of the Board of Directors of Michigan Medical Service) showed the same misapprehension: "unfortunately that loop-hole exists." It was even stated that there is no printed statement anywhere that the major income is the controlling one in the contract.

The Facts

In group contracts and employee withholding, the employer automatically places the subscriber in the proper class A, B, C or D, according to income. In the "Income Not Certified Application Card," the last section contains a block for indication of A, B, C or D, with a listing of income levels and the statement to be signed, *"I certify that the annual income of the principal contributor of my family as checked below is true and correct."* (signature, date). It is evident the charges and criticisms reported here were anticipated and

proper precautions written into the application blank.

Participating doctors have promised to render services to their patients as indicated. In cases of multiple income producers, the doctor usually knows the situation and should make his own understanding with his patient. Any later criticism or accusation of making unjustifiable "extra charges" would then be avoided. Labor groups and others are now making such accusations and giving the medical profession unfavorable publicity. See "Sky-High Medical Bills" in *Parade*, April 12, 1959.

BLUE SHIELD FUTURE

Comments by Carlton E. Wertz, M.D., President, Blue Shield Medical Care Plans, Buffalo, New York, are of significance:

". . . I have appreciated more fully than ever before the immense importance of Blue Shield to the preservation of our private medical care system and its unsurpassed record and achievements in the service of the nation. . . . I wish to appeal to you to remember that Blue Shield has an identity entirely its own. It represents medicine's own answer to the problem of financing medical care. The profession founded Blue Shield and has fostered its development as a fiscal arm of medicine to serve the patient's need for a means of paying the cost of his medical care. As such, Blue Shield occupies a unique and responsible place in our present-day medical care system. We must, therefore, keep in mind that Blue Shield must look to medicine for leadership and aggressively seek medicine's guidance in developing extensions and refinements of its program . . . we must face this fact—Blue Shield can neither trust to luck nor rely on past attainments in shaping its future. In plainer language, Blue Shield Plans must mount a powerful offensive in seeking new and imaginative solutions for the problems facing the nation in its search for continuingly improved methods of financing the cost of medical care. . . .

"It is well known that special interest groups are engaged in a variety of efforts to change our present system of medical care. The closed panel plans are but one example of the direction these efforts are taking. . . . In addition, there are political forces at work which seek to put medical care under the control of government. The Forand Bill is a manifestation of this and should serve as a warning that the voluntary programs such as Blue Shield must realize that the amount of time available to us to meet these and other threats to our present system of medical care is constantly diminishing. We must, therefore, make every hour and every day count heavily in the attainment of the goals we set out to accomplish. . . .

". . . We must realize that the medical profession has a measure of responsibility to shoulder in behalf of Blue Shield. Furthermore it seems perfectly clear that the profession must recognize Blue Shield for what it is and identify its role properly in relation to the function it performs in behalf of medicine. I believe, for example, that we should abandon as fruitless the argument over whether Blue Shield was created exclusively to combat federal health insurance. I think it is time we cease debating whether Blue Shield was created to provide coverage exclusively for the medical indigent or the patient of limited means. Such argument creates a smoke screen and obscures the fact that the Blue Shield program was developed to meet a larger and more universal economic need. Indeed, Blue Shield is a program designed to serve the people's need for a means of budgeting the cost of medical care—a 'commodity' that has grown more costly as its frontiers have been broadened through research and the development of newer and more effective techniques of treatment. Seen in this light, Blue Shield is seen to have a place in our present credit economy as well as in the structure of private medical practice. On the one hand it conforms to accepted patterns of family budgeting and on the other, it has materially strengthened our system of private medical care by providing it with sound economic moorings without disturbing any of the traditional concepts of the private practice of medicine.

"I am convinced beyond a shadow of a doubt that a progressive Blue Shield program sensitive to public need and to professional control and guidance is the one best way to secure for future generations the unparalleled advantages of our American medical system. I am equally convinced that to serve the nation fully the profession must take a direct and active part in all future developments in Blue Shield. Medicine must extend the benefits of Blue Shield to an ever greater segment of the people. It must keep its sights high in developing newer and better forms of coverage. It must gear its program to the needs of an aging population. It must meet competition squarely and effectively in the national as well as the local market place. It must communicate effectively with the profession to keep medicine informed of new goals to be attained in extending and preserving the principle of voluntary prepayment in the face of whatever pressures that may develop to change our present system of private medical care.

"And let me remind you all of this. There was a time within the memory of us all when working in Blue Shield was looked upon as high adventure instead of a job. There was a time when the development of new ideas in Blue Shield was seen as a challenge instead of a chore. There was a time when being a part of Blue Shield was looked upon as being in the mainstream of a social and economic movement essential to the welfare of the people. And no one thought of it as a prosaic business enterprise. We need the spirit of those times today. We need to recapture those attitudes. They are indispensable if we hope to foster greater progress in Blue

Shield and secure for the people of this nation the enduring values of private medical care financed through voluntary effort. Let us resolve to call upon the best and highest order of performance we are capable of and apply our energies to the development of a new era in Blue Shield. Let us provide a workable program of coverage for the aged. Let us prepare to market a national program of coverage for employers seeking such coverage. Let us undertake to co-ordinate our individual enrollment efforts so that Blue Shield coverage can be offered as a simultaneous nation-wide effort. Let us seek new forms of coverage and refinements in our existing programs so that Blue Shield will be the pace-setter in its field. And above all let us develop a progressive, alert and forceful national organization and leadership in keeping with our growing responsibilities to the national community. I urge you to consider carefully the responsibilities we must discharge. The faithful performance of the tasks ahead of us will determine whether Blue Shield and, indeed, all voluntary forms of prepayment will survive. Let us be about our work with determination."

MEDICAL CARE FOR FEDERAL CIVIL EMPLOYEES

Blue Shield Plans throughout the country support legislation which would lend assistance to the financing of health care benefits for employees of the Federal Government, Donald Stubbs, M.D., Chairman of the Board of Directors of the National Association of Blue Shield Plans, told a Senate Committee on April 21.

Dr. Stubbs testified on behalf of the nationwide Blue Shield Plans before the Committee on Post Office and Civil Service, which is conducting hearings on Senate Bill 94, a bill providing for Government contribution toward health service benefits, including basic coverage and major medical insurance for civilian officers and employees in the U. S. Service and their dependents.

In his statement, Dr. Stubbs indicated that Blue Shield would generally favor legislation to provide:

1. That all qualified carriers have an opportunity to offer coverage.

2. That employees should have a free choice, subject only to the enrollment requirement of the carrier to select the plan of coverage which seems best to fit his needs.

3. That a Government contribution toward the cost of coverage be sufficient to enable employees to get better coverage than they may now have.

4. That payroll deduction be made available to assist the employee in paying his share of the cost.

Dr. Stubbs emphasized that Blue Shield was strongly opposed to any legislation which would permit the Federal employee to select a program of basic coverage from one source, and impose upon him major medical insurance obtained through another source. "It is in the best interest of the employee, the Government, and the insurer that the health care services which each employee procures be obtained through a single source," Dr. Stubbs said.

Dr. Stubbs further suggested that the proposed bill "be changed with respect to that section which limits the agencies qualified to provide major medical programs to a small handful of insurance companies and thus prohibits Blue Shield and Blue Cross Plans from creating a package of basic and major medical benefits to be offered Federal employees through a single source." And, finally, he urged that provision be made for a combination of basic and major medical coverage to be offered by any qualified carrier under the provisions of the bill.

In his testimony, Dr. Stubbs indicated that the Federal Government is the largest employer which does not now contribute to or make available by means of payroll deduction some form of health benefits for its employees. Blue Shield stands ready to provide a nationwide program of health care benefits for Government employees, Dr. Stubbs announced, and its ability to do so is readily expressed by the successful servicing of Blue Shield medical care prepayment programs for more than 40 million Americans. Among these, he concluded, are hundreds of thousands of Federal employees who are currently participating in Blue Shield programs of their own volition.

OASDI COVERAGE OF DOCTORS

The fourth House bill calling for inclusion of physicians for social security coverage was introduced by Rep. George M. Wallhauser (R., N. J.). His H.R. 7295 gives an option to doctors engaged in practice at time bill is signed into law. They could come in or stay out at their pleasure. Participation would be compulsory for physicians embarking on private practice subsequently.—W.R.M.S.

L. FERNALD FOSTER HAS PASSED

Rarely does a man appear upon any field of service who consistently exercises a completely inspiring influence on that service. This holds true in statesmanship, in education, in science, in medicine. Through the ages, we have had great names in Michigan medicine and we may well be proud of them. A few of those whose chief interests were both scientific and administrative could be mentioned and the names have significance: Donald McLean, Theodore McGraw, Victor C. Vaughn and Andrew Biddle—names that were highlights in Michigan medicine. Each man impressed himself upon the medical profession and gained the universal love and respect of all who knew him.



L. Fernald Foster, M.D.

L. Fernald Foster, M.D., in his first years of practice in Bay City, became Secretary of the Bay County Medical Society. Both he and the Society had visions of service and constructive effort. He served as Secretary for thirty-nine years. In 1936, the Michigan State Medical Society wanted a medical secretary. It had established an active lay secretary but needed the medical know-how, the medical approach, a man with the ability to talk convincingly with all doctors man to man. Dr. Foster was selected and continued in that office until his death on Wednesday, May 27, 1959.

He had a most unusual capacity for quick insight, shrewd analysis of problems affecting the medical profession and the extreme ability to expound in lucid and convincing terms. He was instrumental through suggestions or actual doing, of establishing several flourishing state and national medical organizations. When he became Secretary of the Michigan State Medical Society, the groundwork which had been going on in various places leading to the creation of a prepaid medical service program began to take shape. Very soon thereafter it was accepted by Dr. Foster and the Executive Committee of The Council for complete study, organization and establishment.

Throughout the years, Dr. Foster served on the board, but not as an active administrative officer. However, when problems developed, he was the first to appear in this section of the state or that with explanations, convincing answers and suggestions.

In 1955, he became Vice President of Michigan Medical Service and in 1956, President, having arranged to give his full time and effort to Michigan Medical Service and the Michigan State Medical Society, serving the one as President and the other as Secretary. He filled these two positions completely to the point where the profession honored and respected him for his opinion and ability, for his grasp of detail, and for his supreme devotion to what he considered the very best service which could be rendered to the doctors of Michigan and to the people of Michigan.

Fern Foster has joined the great names in medical history. To those who worked constantly with him, to those who served with him less often, a giant has passed. Every worker who was closely associated with him for many years will dedicate himself with renewed effort in an attempt to fill the void created through the passing of an irreplaceable personality.

Wilfrid Haughey, M.D.

UNPRECEDENTED PROCEDURE

Michigan Legislature Passes a Joint Resolution

Messrs. Greene and Francis of the Michigan State Legislature offered the following concurrent resolution:

Senate Concurrent Resolution No. 33

A concurrent resolution of sympathy upon the death of L. Fernald Foster, M.D.

WHEREAS, The Michigan Legislature is saddened to learn of the death of Dr. L. Fernald Foster, in Detroit's Harper Hospital, on May 27, 1959; and

WHEREAS, L. Fernald Foster, a pre-eminent physician for approximately forty years, was a medical statesman, known nationally for his service to the medical profession in helping to shape its policies; and

WHEREAS, One of the founders of Blue Shield, a member of its Board of Directors since its inception in 1939, he became President of the Michigan Medical Service in 1956 and was appointed Medical Administrator in March, 1957. In 1936 Dr. Foster was chosen Secretary of the Society and re-elected annually for twenty-three years, and his work with the Society included activity with nearly every committee and project. Through his efforts many programs were inaugurated which are now accepted as standard parts of health services in Michigan and throughout the nation; and

WHEREAS, Dr. Foster's career was indeed a series of highlights: He helped to found the Michigan Heart Association and served as its first secretary. He began the Michigan Rheumatic Fever Control program while serving as a member of the Board of Directors of the Michigan Society for Crippled Children and Adults. He aided in organizing the National Conference on Medical Service and served as its President; and

WHEREAS, Dr. Foster's indefatigable energies encompassed fire fighting as well, and he was an authority on fire-fighting equipment and installations, and was an affiliate of many organizations in the field of medicine and also service and fraternal groups; now therefore be it

RESOLVED BY THE SENATE (the House of Representatives concurring), That the Michigan Legislature express its sorrow upon the death of an honored, respected and beloved gentleman, Dr. L. Fernald Foster, and extend sincere condolence to his family and multitude of friends; and be it further

RESOLVED, That a copy of this resolution be transmitted to Dr. Foster's family at their home, 787 Harcourt Road, Grosse Pointe Park, Michigan.

Pending the order that under Rule 33, the concurrent resolution be referred to the Committee on Senate Business, Mr. Hutchinson moved that Rule 33 be suspended.

The motion prevailed, three-fifths of the Senators present voting therefor.

The concurrent resolution was then considered and adopted by a unanimous standing vote of the Senate.

(Further information concerning Doctor Foster will appear in the July number.)

But Life is sweet, though all that makes it sweet
Lessens like sound of friend's departing feet;
And Death is beautiful as feet of friend
Coming with welcome at our journey's end.

—GEORGE WILLIAM CURTIS

Open Forum on Prepayment Hospital and Medical Care Plans

THE great strides medical science has made in the past fifty years—unquestionably the greatest clinical progress in the long history of medicine—have made public interest in medicine and personal health second to none in the realm of science. That includes nuclear fission, sputnik and moon shots.

A recent University of Michigan survey on newspaper and magazine reader interest and reader retention showed that the general category of Science ranked very high—third from the top of all subjects. And most significantly, within that science category, interest in news about health and medicine outstripped all others.

Although the survey experts had a pretty good idea that public interest in health was high, even they were surprised at the results of a hypothetical question given participants. It asked, in effect, if funds were available for basic research, missile and satellite research, juvenile delinquency and for health and medical research, which should get top priority?

The overwhelming choice was health and medical research, with moon-trips—seemingly more glamorous and appealing to the public imagination—coming in far behind. About 54 per cent chose medical research, 32 per cent juvenile delinquency and 7 per cent basic research.

Hand-in-hand with this tremendous and continuing interest of the public in medicine and health is the interest in the problem of financing this better, more complex, more costly medical care.

Prepaid hospital and medical care—born in Michigan with the creation of Blue Cross and Blue Shield some twenty-five years ago—is obviously here to stay in one form or another. New developments in medicine, in hospital care and hospital use, a greater public awareness of the value of health care—all these have combined, however, to continually raise new problems in coverage under prepayment.

The practice of medicine itself should always remain solely in the hands of the medical profession.

But the financing of medical care has truly become a problem in which a great many segments of society have a legitimate stake and a legitimate interest. This includes organized medicine, the public, including organized labor, Blue Cross, Blue Shield and the commercial health insurance field.

To provide an open forum for the admittedly divergent views of these segments, The University of Michigan Bureau of Hospital Administration of the School of Business Administration sponsored a one-and-one-half day Institute for Hospital Administrators, April 2-3, 1959, at the University.

Its expressed purpose was "to provide an open forum for those interested in payment of and those rendering hospital and medical services. To examine through formal presentations and group discussion, problems involved, how gaps can be closed and the relative roles of selected agencies."

Participants included leaders in the field of medicine, hospitals, management, organized labor, Blue Cross and the commercial insurance field.

As one of the participants, in describing the importance of such institutes, put it:

> "We have now reached a point where all the parties who are essentially for finding improved methods of financing health care and do have a real intrinsic and unalterable interest in this are together. It's going to make life very difficult for us in the years ahead, but it offers us an invaluable vehicle that can be harmonized with the best of modern medicine that can help free the physician, the hospital and the patient of economic barriers and help provide and obtain the kind of care that is dictated by the standards of our expanding medical knowledge."

To provide you with an insight into what leading spokesmen in medicine, management, labor, Blue Cross and commercial health insurance are thinking, we present on the following pages condensed versions of the formal presentations of the various speakers at this open forum institute. You may disagree with some or all of their presentations. But whether you agree or not, you will probably come away from the reading better informed as to what these segments of society believe the problems and possible solutions to prepaid health care are. And from a knowledge of their thinking, you will undoubtedly crystallize and strengthen—or perhaps even alter—you own convictions.

Labor Views Financing of Hospital and Medical Care

By Jerome Pollack
Detroit, Michigan

THE gathering of labor, management, hospital, medical and prepayment representatives to discuss their common problems in financing health care is still a rather new and welcome phenomenon. Before launching into the distinctive views and needs of labor, we would do well to appreciate the growth of common interest among these different groups that has made it possible for them to join in programs for financing health care that now serve a majority of the population.

Until very recently, there were wide disparities in the health of people, according to their income, occupation and station in life. The mortality of unskilled workers, for example, according to studies made in the thirties, was about twice that of professional men. People with lower income suffered higher mortality from nearly all of the principal causes of death. They had a greater prevalence of illness and a much greater volume of untreated symptoms, a finding that still remains today, even though the gaps by income and socio-economic status have been reduced.

The early programs to finance health care for workers faced problems distinctively different from the latter-day prepayment plans serving the general population. They were designed to serve people with substantial health needs and modest means. Their primary purpose was to prevent economic barriers from standing in the way of needed care—an objective that we sometimes lose sight of today. Everyday health care came first. Protection against financial ruin was the product of more affluent times. The arrangements to provide care were almost as important as the financial aid in paying for it.

For a long time, these early programs that go back about a century stood almost alone as outposts of prepaid health protection in our country. The report of the AMA's Commission on Medical Care Plans is in a sense a tribute to some of these earlier plans. Only with the substantial elevation in the health status of workers, which has accompanied a general upgrading in status and standards of living, has it become feasible to join, as we now have, in common programs for financing health care that cover a majority of the population. From a special problem, the health of the worker is becoming increasingly a general health problem. The people who comprise labor now receive most of their care from the same hospitals and the same physicians as the rest of the community and are faced with similar problems in financing their care. If there is one new and important trend in labor thinking about hospital and medical care, it is towards greater participation in community programs for financing health care, and towards a greater identity of interest.

New Form

When general health insurance spread to a majority of the population, it took an entirely different form and had an entirely different motivation from the plans that had specialized in protection for workers. More than anything else, the deep financial crisis that existed in all phases of health care in the early thirties precipitated action on health insurance. In the four years following 1929, consumer expenditures for personal health care dropped by a third. Payments to physicians fell 36 per cent. Occupancy rates in the voluntary hospitals were hovering around 55 per cent.

In a volume entitled "The Crisis in Hospital Finance," published in 1932, Michael Davis and Rufus Rorem concluded:

> "If American hospitals are to be financed by patients' payment in the future, even as much as they were in 1929, these payments must be made more assured and more stable. The life of voluntary hospitals is threatened because of the instability and unevenness of this major source of income."

The President of the American Hospital Association was quoted as saying:

> "Without being pessimistic as to the future, the American Hospital Association would be unmindful of

Mr. Pollack is Program Consultant, Social Security Department, UAW.

the members' interest if it did not recognize the possible breakdown of the voluntary hospital system in America. . . ."

This was the moving force that brought prepayment to most of America. It was not an attempt to invent a better mouse trap with 121,000,000 people beating a path to the door. It was an effort to keep the roof from falling in.

Medical societies, fearing that legislation on a national health program was imminent, were spurred into adopting plans of their own in the hope that they would avert such legislation. Private insurance companies entered the field with similar sentiments.

Voluntary health insurance left the ground like a rocket. When last sighted it had passed the four billion dollar mark, already reaching a fantastic size, and now, although everyone seems to think it's off course, it's still rising very, very rapidly.

Probably there is no parallel in American life to this surge of enrollment in which more than 80,000,000 people were newly covered by voluntary health insurance in the decade following World War II. Sweeping changes in the economy made it possible for people to afford protection. Millions left the depression tired of charity wards where occupancy rates were running at 100 per cent. They wanted to be able to afford semi-private accommodations; they had had enough of not being able to pay their medical bills, and were anxious to be able to do what they could to pay in the future. They were willing to contribute directly and to allocate gains in collective bargaining for health insurance.

Getting off the ground was an extremely important development. Obviously, four billion dollars worth of health care a year—and it's still growing—does a monumental amount of good. But, as we so often read in the papers these days, important as a launching is, it is not enough. Whether health insurance has gone into orbit is still a question.

We know that the growth of voluntary health insurance, faced with its intrinsic needs, has been very shallow. Earlier estimates, modest as they were, have actually over-stated the depth of protection. Corrections in the 1958 Survey of Current Business show that this year health insurance will cover only about one-fourth of America's total private health care bill, a little more than half of private hospital care, and perhaps 30 per cent of physicians' services.

The protection remains addressed overwhelmingly to hospitalized illness and to surgical care. In spite of the tremendous growth, the average insured family probably still has uninsured about twice as much of its total personal health care, as it has covered.

There is room for legitimate argument about how far prepayment can and ought to go toward covering all of health care. But there is no question that it was ever destined to stop at its present level. Judging from its past rate of development and from the needs that remain unsatisfied, prepayment can reasonably be expected to double in volume within the next five to ten years, and to cover, perhaps, two-thirds of the average family's expenditure for health care.

Evolutionary Course

This is a modest expectation. It assumes an evolutionary course of development and does not strain the upper limits of insurability. Those plans that have already gone further toward achieving this level—such as the Windsor Medical Plan in Ontario, H.I.P. in New York, the Kaiser Foundation Health Plan—make it abundantly clear that the present struggles of people to meet the uninsured costs of care are largely an unnecessary privation. But how to achieve more comprehensive protection is an open and much disputed question.

The quest for more inclusive care is not advanced solely by labor. Much of the impetus, in fact, has come from management personnel dissatisfied with their own protection, impatient with the inadequacy of benefits limited to hospitalized illness and seeking to protect themselves against financial ruin. Major medical insurance is essentially a management revolt against these deficiencies in health insurance. For a time, major medical insurance dominated the scene. It was proclaimed that health insurance had started at the wrong end and was proceeding in the wrong direction. And most appealing to those distressed by rising costs, the deductible and co-insurance provisions were expected to check the rise in cost.

Labor was worried about the Davy Crockett stage of major medical insurance. The resurgence of economic barriers to care was directly contrary to the original aims and whole direction of health insurance. It was one thing to accept gaps in protection that represented areas of coverage that hadn't yet been reached. It was quite another thing to see economic barriers deliberately reim-

posed and to hear a lot of the nonmedical talk about the unimportance of small claims, a convenient fiction— that might be rather nice if it were true—but there is no demonstrated evidence that care involving a small expenditure is necessarily medically unimportant.

Catastrophic care needs attention. It is a legitimate concern of prepayment. But the worker is less concerned with protecting himself against financial ruin. He wants and he needs service benefits. He wants (and this was recently confirmed by the Opinion Survey made by the Michigan State Medical Society) coverage of minor as well as major conditions; and he continues to be concerned with the availability and accessibility of care more than with the threat that illness may wipe out his nest egg.

The magic of major medical is now largely dispelled. While some went on to embrace the hula hoop, others are returning to sanity, and realizing that no simple trick like co-insurance and deductible will solve the essential problems that face prepayment. Mounting losses on major medical insurance have dampened hopes that it would neatly control costs. It, too, has been susceptible to one round of rate increases after another. In fact, its cost has shown less stability than hospitalization service plans. And so we return without any panacea to the difficult problems of extending health insurance into new segments of care which are inherently more difficult to insure and that will require far more effective controls than now exist. For voluntary health insurance to double in scope without better controls than it now has is to court ruin, not from without, but from within.

Constructive Critic

Labor has been an active critic, but it is not the principal adversary to voluntary health insurance. Originally a moving force in favor of legislation, labor has become one of the most constructive and sustaining forces for voluntary health insurance. This may sound paradoxical, but it has the virtue of being true. Labor's acceptance is by no means uncritical, as you know, nor has it relinquished its intrinsic right to press for legislation if need be. But in so vital a field, the need for timely protection is paramount and supersedes the form that may be taken. Although labor continues to be portrayed as a threat, its actual record has been one of support for voluntary health insurance. Labor began to purchase prepaid health care even before substantial employer contributions were in prospect. Often it had to insist on the right of payroll deductions for this purpose. As negotiations came to include health insurance, through continued efforts to obtain better protection, labor has supported voluntary health insurance and helped give it a favorable climate in which to grow.

But the position that anything will do just so long as it is voluntary has also become untenable. Opposition to national health insurance is not enough. The coalition that came together to avert legislation is now largely divided on how the voluntary system should operate and even over what its aims should be. Ultimately, the greatest adjustment has to be made by those who, in opposing a legislative program, were not for a voluntary one and are still not ready to make voluntary health insurance work.

The most serious deficiency in form is the widespread use of indemnity benefits which pay a fixed amount, regardless of how much the care actually cost. As the insured must pay the full cost which has no predetermined ceiling, indemnity benefits at best offer uncertain protection. Moreover, in a transaction where fees are set traditionally according to ability to pay, they are further impaired by an intrinsic susceptibility to misinterpretation and abuse. In a futile attempt to keep up with fees, indemnity fee schedules have been raised from the once standard $150 maximum scale to $200, $225, $250, $300, $400, $450 and even more. It is perfectly true that many of these schedules were never negotiated with medical societies and that physicians are free to charge more. It is true that there are many inequities and deficiencies in these schedules. But it is also true, and supported by abundant evidence, that indemnity benefits on the whole do not get the same weight as out-of-pocket payments. The indemnity form is defective. Who would buy life or fire insurance if the cost of living to survivors, or to rebuild a house, were predictably higher because the people had gone to the expense of insuring themselves? The deep dissatisfaction arising out of indemnity dealings is harming the prestige of the medical profession beyond the power of public relations to set aright. If health insurance is to continue to prosper, it must assure its subscribers that a dollar paid by insurance buys the same protection as a dollar paid by the patient.

It is not going to be easy for hospital prepayment plans to find their place in the surge for more com-

prehensive coverage. While it is entirely understandable that plans sponsored by hospitals are inclined to stop with hospitalized care, and while it is indeed difficult for them to proceed further, there is no question that in the interest of properly designed adequate health insurance plans, it is necessary to go far beyond the hospitalized illness. The prepayment plans operated by hospital associations have shown great leadership in fighting for service benefits, community rating and in many of the innovations they made in the years when it was they who largely shaped health care. Recently they have been taunted with lack of leadership, for their slowness in moving toward more inclusive care. The real challenge to such plans is in the question whether they were not primarily designed to solve the financial crisis that existed in the early thirties in hospital financing and that, having largely solved this crisis, they are not disposed to go further. This is not a taunt: If the hospitals do not go further; if they abandon their own goals of becoming community health centers providing extensive care for ambulatory patients, and serving as a base for medical practice, research and education; then they have to assume a declining role in prepayment as it grows in scope.

Honeymoon Is Over

In spite of its dire beginnings, voluntary health insurance has spent most of its career in the flush of post-war affluence, when people were only too anxious to have a vehicle through which they could pay for care; when they were not especially concerned with premiums and only too glad to be able to pay them. Now, however, people are concerned about the impact of prepayment on the cost of care.

There are legitimate grounds for such concern. To raise the issue, is not necessarily an attempt to find scandals. Medical care in America is in the throes of profound technologic and economic change. Undeniably, there is a great advance in medical knowledge. Undeniably, procedures are today commonplace that were unknown ten to twenty years ago. Undeniably, more progress has been made in certain aspects of medicine in recent decades than in previous centuries. There are indications that the volume of doctors' visits for the average person has almost doubled in recent years. The demand for service has been compounded by a population that has been growing much faster than had earlier been supposed. Moreover, rapidly growing and rather immature health insurance plans are exerting profound pressures on the financing of private health services for which they were not nearly prepared. All of these changes pose a demand for service and challenge the capacity and organization of medical care and the methods of financing as never before in America.

But even after recognizing the many acceptable explanations, the increases in cost still remain a matter of real public concern.

Requests for rate increases by Blue Cross Plans are being met with hearings. Labor may be conspicuous in such hearings, but the concern of the public is far more general. A rather stern adjudication by the Pennsylvania Insurance Commissioner raises the question whether insurance hasn't unnecessarily inflated the cost of care and whether the public interest is adequately protected under plans originated and still dominated by the purveyors of service. Investigations are being conducted in Michigan, New York, Pennsylvania and elsewhere. Fortunately, these studies are being made by competent professional groups with broad public sponsorship. Perhaps they will find some of the answers to these very difficult questions.

Consumer resistance to the increasing cost of health insurance is still new. Thus far, there has been a tendency to regard any resistance of a rate increase or an objection to the amount requested as destructive, sometimes as a threat to the hospitals or physicians. Medical societies have been particularly reluctant to negotiate over fee schedules with consumer groups, many in their ranks feeling that consumers should have no involvement whatsoever in setting fees, even in consultation and through negotiations with the medical societies. As a result, many such plans have presented their offerings to the public on a take-it or leave-it basis. If the hospitals and physicians regard their respective plans as their own property and conceive of the prepayment plan as their agent, then the consumer is bound to regard the plan on an across-the-counter basis.

But prepayment is far too important, both to the consumer and to the provider of service, for this arms' length dealing.

Labor is going to continue to co-operate with voluntary health insurance plans that we now have and continue to work for their improvement. Plans of the M-75 variety in our state are a great step forward in affirming service, in extending the scope of medical benefits, and in setting up medical

review committees under the sponsorship of the medical society. But much more is needed and it is disconcerting to see the reluctance of medical societies in other areas to accept even these gains. A humbling example of how much further such plans of this basic type can go—sponsored by medical societies and offering free choice of physician—is to be found in the nearby Windsor Medical Service.

Labor is also going to continue to work for more comprehensive direct service group practice plans. The primary reason has been the failure thus far to get more comprehensive protection, the failure in many areas to get service rather than indemnity benefits, the drifting of the non-profit plans away from community rating. The last straw was labor's realization that if it did not act, it would have to accept the retreat to co-insurance and deductible provisions, and to economically-oriented rather than medically-oriented plans.

Out of this dissatisfaction, labor groups have been increasingly stimulated in recent years to develop their own programs. Labor people have seen at first hand that it is possible to have more comprehensive benefits. Labor is impressed with the promise of group practice and feels strongly that it ought to be given a chance to develop, unimpeded, and to demonstrate what it can do in competition with all the other forms of practice.

The basic pattern of labor thinking, however, is toward community plans rather than away from them. The directly operated labor health centers are attempting to broaden their scope and serve more than the members of a single union. Some are looking at the community as a whole. In Michigan, the United Auto Workers made a careful and deliberate decision to support a community plan rather than to build one solely for its own membership. The Union concluded that the community was essentially more dedicated to the quality of care and most concerned with the end product of health care than any of the other parties alone.

Labor is increasingly committed to dual choice of plans, in which each individual in the group may elect either a closed panel plan or one offering free choice. Where each individual is given such a choice, the one who choses a panel of doctors makes every bit as deliberate and informed a choice as the one who chooses an individual practitioner.

There are encouraging signs that earlier efforts to crush the independent direct service plans are on their way to becoming a closed, if unedifying, chapter of medical history. This is all to the good. For, in time, organized medicine is bound to offer hospitality within its ranks for plans employing different principles of organization and reimbursement, provided that they offer good care. How far and how fast such programs will grow will depend on what the general health prepayment plans will do. It is largely a matter of competition in the American tradition.

New Responsibilities

Thus far, health insurance has proceeded on the premise that its responsibility is largely limited to reimbursement for care. There has been a scattering of efforts to influence the quality of care under prepayment. But generally, the effort has been made to draw a sharp line between financing and care. Even where this was the intention, the separation between prepayment and practice has actually proved to be impossible. Prepayment does influence practice. It can put people into a hospital. It can influence how long they stay. It can encourage surgery. It can affect the choice of hospital, of physician or of a group of physicians. It can advance or retard the timing of care. These influences go on whether they are understood or not, recognized or not. If not understood, or if ignored, they can encourage bad practice; if recognized and constructively applied, they can encourage good practice.

Health insurance can succeed only to the degree that it secures the active participation and support of the medical profession. That is why the successful examples to date have been those with active medical participation, even when the plans have been in official disfavor with the rest of the profession. Large segments of the profession, however, have not given health insurance, even in its voluntary form and even under medical society sponsorship, the support it needs. A great many physicians shy away from these matters. Many are too busy. Some are still hostile. And prepayment is not getting the medical attention that it needs.

Yet a properly designed system of prepayment, with any real chance of survival, can be devised only out of a deep understanding of medical care. Second hand actuarial theories derived from life and casualty insurance will not do. These coverages evolved their own theories. Health care—the

most complicated contingency to which insurance has ever been applied—will in turn need its own. The commonly cited analogy between automobile collision and health insurance is so inappropriate and unmedical that when fully explored, it generally proves intolerable. Health insurance will not be abe to ride piggy-back on other coverages. It will have to live by its own lights.

Medicine should attempt to do for health insurance what it has done for medical education and in improving the standards of practice. The economic fate of the medical profession is now irretrievably tied to health insurance. Health insurance is not going to be turned back. The only alternative to its further expansion and improvement will be some other social method of financing and distributing cost. The burden will never again fall solely on the afflicted.

Prepayment has brought the physician, the hospital and the patient closer together than ever before. It has brought new parties into the relationship—the prepayment plan, the employer, the union and the public. It has thrown them together into new and intimate relations for which none of the parties were prepared. All have been faced with bewildering and, at times, almost overpowering problems. After all, the purchase of health care by people who are well is on an entirely different footing from the purchases by those who are sick. The change is profound. How little it is understood is revealed by much of the castigation of "Third Party" payments. The critical issues today are whether prepayment will be able to grow in comprehensiveness; whether it will be able to devise satisfactory forms of protection; whether it will be able to assure value and quality for the monies expended; whether a voluntary system composed of hundreds of separate plans sponsored by hospital associations, medical societies, commercial insurance companies, consumer groups, labor, industry and others—with authority spread over a great number of hospitals, hospital associations, physicians, medical societies, medical groups, dentists, optometrists and other professions; employers, unions welfare funds, consultants, insurance commissioners and still others—can meet the reasonable needs of society for prepaid health care or whether at some point it will break down as a tower of Babel, unable to reconcile the many voices and interests. Prepayment, however, has brought together the parties essential for finding improved methods of financing care, and who have an intrinsic and unalterable interest in the care rendered. Unquestionably, it is going to make life difficult in many ways in the years ahead. But it offers promise of an invaluable vehicle that can be harmonized with the best of modern medicine, that can help free the physician, the hospital and the patient of economic barriers in ordering, providing and obtaining the kind of care which is dictated by medical necessity and determined by the standards of our expanding medical knowledge.

Management Views Financing of Hospital and Medical Care

By Malcolm L. Denise
Dearborn, Michigan

MANAGEMENT of the modern corporation has an interest in the subject of hospital and medical care, both in its capacity as an employer of people to man its facilities and in its capacity as an industrial citizen of the communities in which it lives and does business.

Over the past couple of decades, there has been increasing awareness by corporate management of its responsibilities in both capacities. I know there have been great developments on both scores at Ford since 1946.

We come into direct contact with this problem of hospital and medical care in several ways, of which the most direct are these:

1. As the operator of our own plant medical facilities and services.

2. As a donor and solicitor of employe donations towards meeting costs of community health programs and facilities—both operating costs and capital expenditures.

Mr. Denise is General Industrial Relations Manager, Labor Relations, Ford Motor Company.

3. As a purchaser of hospital and medical services for employes.

The first of these has probably the least bearing on our discussion here today, and I shall not dwell upon it.

The other two phases of our relationship to medical care problems—as a supporter of voluntary community agencies and, jointly with our employes, as a customer—are more relevant to the subject you are examining.

The development of proper and intelligent management attitudes, policies and actions with respect to both of them is considerably more involved and difficult. Management must relate them to a number of considerations, and attempt to reach specific solutions to the problems confronting it which reflect a sound, realistic application and balancing of these considerations.

What are these considerations? There are several which seem to me of great importance.

I would list as perhaps the most basic our stake in the preservation of a free society and a free economy in America. The individual freedom which we Americans have been able to enjoy has been made possible by a system of institutions which has accommodated an unprecedented degree of diversity and autonomy within an over-all unity. This has released the energies and ingenuity of our people to accomplish—voluntarily and largely without the compulsion of master planning and state control—the highest standard of living for the many that man has ever known.

Important Role

It is, of course, a truism that freedom is inseparable from responsibility.

One corollary to this broad consideration is that medicine and medical services must be able to attract and retain able people voluntarily, in competition with other callings and vocations. We live in a world of limited choice. We can either attract people or we can conscript them, and if we are forced to resort to conscription, freedom dies.

Secondly, management must never lose sight of the role which it should play in a free society. Generally speaking, management is interested in advancing the well-being of its employes and the communities in which it operates. But its responsibilities cannot end there—it has equal responsibility to consider the interest of customers, stockholders, and the public at large. No matter how high our motives or how deep our desire to improve conditions of employment or in the community, there is simply no escape from the proposition that wages and benefits and contributions are costs of production. Our economic system relies on management to control costs. If management fails in that duty—if it does not keep the costs of doing business at a level which enables the business itself to grow and prosper—then it fails utterly in its responsibility to customers, stockholders, public, community, and employes alike.

This, quite simply, means that the desirability or alleged need—which is, really, a relative term—of some particular health project or program cannot be the sole or overriding criterion for management decision. It is one of the harsh, inescapable facts of human life that we cannot have more than we can afford; and if we attempt to do so in one area, we pay the penalty in another, regardless of how we organize our society.

The importance of considering the cost factor in developing policies in the medical care area is doubly emphasized by a look at what has been happening to the cost of medical care itself.

According to the Health Information Foundation, the personal expenditures of the American people for their health care in 1957 added up to more than 15 billion dollars. This is only the amount we spent privately—on hospitals, doctors, dentists, drugs, glasses and all the other things we use in our health care.

This 15-billion-dollar-figure does not tell the whole story. It represents only personal expenditures. We must also add the huge sums of money spent on health care by federal, state, county and city governments, by our charities and philanthropies, and by business and industry on industrial health clinics. When we include the money spent in these categories, the total estimated sum for 1957 becomes 20 billion dollars.

Even this 20 billion dollars does not cover the whole bill. It does not, for example, include public and government funds spent on medical research or on the construction, expansion and equipment of hospitals. Nor does it include the administrative and other costs incurred by employers for the health care insurance plans tens of thousands of enterprises provide their employes. Our experts tell me that if we added these amounts to the 20 billion dollars, the total probably would equal about half of this fiscal year's proposed budget for defense.

The figure is impressive. Even more significant

to our thinking than the total sum, however, is the rate of increase. The 20 billion dollars known cost of heath care last year is double the corresponding figure for ten years ago, and five times the figure for twenty years ago.

We see no basis for confident prediction that medical costs will level off in the near future. On the contrary, there is every reason to believe that they will continue to rise.

The rate of innovation in medical science and medical practice is rapid and promises to become even more rapid in some areas. As medical practice advances, the hospitals must keep up with it. Hence, it is reasonable to suppose that the rate of change and obsolescence in hospitals will be greatly accelerated in the next decade.

Moreover, it seems likely that we shall continue to use more and more hospital and medical services. This is a guess, I know, but it is based on experience. Between 1935 and 1957, annual hospital admissions per 1,000 population increased from 59 to about 130—and the curve is still rising. There is no evidence that the rate of use will diminish or level off. It seems much more likely to increase. What these facts signify for hospital costs—both capital and operating expenditures—is almost immediately apparent. For one thing, the need for highly trained personnel will increase and competition for these people may become more acute and costly. For another, it is very likely that inflation will continue to affect the cost of all the things that a hospital needs.

Crux of Problem

In this connection, I would like to come back to the proposition that real improvements in the standards of our people as a whole can come about only by increasing our efficiency and productivity—in other words, by increasing our output per unit of the resources at our disposal. And, insofar as I am able to understand them, our commonly used measuring sticks are particularly ill adapted to arrive at meaningful conclusions as to the productivity progress in professional and service fields such as health and medical care. But one thing seems clear—to the extent that our health and medical programs do not increase their own efficiency, they can progress only at the expense of other needs and wants of our people.

The final consideration I would like to mention is this: There is a definite management self-interest in the continuing good health of employes. We know that proper care in the event of illness or accident can insure an earlier return to work, and can be a major factor in the efficient operation of the company. We know that a major share of absenteeism is caused by off-the-job illness and accidents. We have to schedule for it, make allowances for it, transfer employes to unfamiliar jobs with resultant loss of efficiency. Moreover, as management problems and industrial processes become more complex, we become increasingly dependent upon highly skilled people. The absence of just a few key people can be very costly to us. In our own self-interest it is important that our employes be healthy and productive.

At the same time, it must be acknowledged that to date no one, so far as I know, has come up with a satisfactory price tag on factors such as these which would enable management to determine the dimensions of cost expenditures for medical benefits which actually are recouped through such factors. It is doubtful, in my opinion, that the nature of the situation is such that reasonably precise calculations of this kind are possible.

Now, all of these considerations that I have discussed are not always easy for mere fallible humans —which managers, after all, are—to bring into a proper balance when deciding upon specific proposals for management policies and actions; but decisions nevertheless must be made.

Management's Role

I would like to discuss, in the time remaining, some conclusions to which these considerations have led us in the company I represent.

First, let's consider our role as an industrial citizen of the community, concerned with the support of community health agencies and facilities.

As a major employer, we must dispose of requests for direct contributions to innumerable voluntary agencies in this field, and to requests that we permit, undertake, administer or otherwise support appeals to our employes for contributions to such agencies.

There seems to be no natural limit to the number of groups which can form themselves for apparently worthy purposes and undertake fund drives. For the individual employer to pick and choose intelligently without risking ill-feeling, charges of favoritism and discrimination, and wasteful or unwise use of donated funds is a virtually impossible task.

As a step toward solution of these and related

problems, we endorsed the United Fund approach at its inception, and took an active part in its development.

As you probably know, ten years ago Detroit pioneered the United Foundation, and after ten years' experience we are absolutely sold on it. Year after year, it has proved to be the simplest, most cenvenient and most economical way of doing the job for which it was designed.

We were active in developing a comparable approach to the raising of capital funds for community facilities—chiefly hospitals.

But, as we see it, the greatest selling feature of federated giving from this time onward will not be mere convenience. It will be the evidence that federation gives of thorough planning which enables it to provide all the health services a community should provide. Federation has moved beyond the stage of initial enthusiasm. It now has adult responsibilities. It will continue to enjoy success only insofar as it measures up to these responsibilities. It will maintain its place only as it proves itself capable of keeping up with the changes that affect community health services, and of serving the community well. If it is to continue its early success, it must be ready to adopt new attitudes, new disciplines and new habits of thought about community services. Above all, it must plan programs with all the care it can muster.

And here, of course, the problem of rising medical costs confronts us head-on. We see this economic problem as one of the gravest difficulties lying ahead for federation. If we are to continue our voluntary United way of handling community health problems, then we must prepare for a possible doubling of the cost of health services in the next ten years. And unless we demonstrate our ability to cope with rising costs in such a way that the community's health needs are adequately served, and for adjusting community programs to changing community patterns, then federation as we know it seems doomed.

Our voluntary community health services, including our voluntary community hospitals, have throughout our nation's history provided us with a way of dealing with our health needs that is consistent with our democratic and free enterprise society. This tradition of self-help through the neighborly sharing of our common responsibilities is part of our way of doing things. It is the medium through which the employer can best meet his responsibilities in this area as an industrial citizen of the community. It gives him the opportunity to contribute to the group effort, not only his money, but the specialized talents and knowledge that experienced business management can contribute toward realistic planning and administration, the avoidance of waste, and the necessity of living within the means available. And at the same time it preserves to the professionals and experts in the field of health and medical care primary responsibility for the design and execution of their programs, and provides a mechanism for resolving the often competing claims of the various interests which make up the community.

In our capacity as a "consumer" of medical services through contributions toward the cost of selected hospital-medical care benefits for our employes, we are not over in a separate compartment completely walled off from that labeled "community citizenship." On the contrary, in the consideration of such programs we have kept very much in mind their relationship to and impact on the community.

Thus we have opposed the notion of special facilities and medical programs designed for the exclusive use of our own employes or the employes represented by a particular union or group of unions.

Michigan Standard

Our principal employe coverage for basic hospital-surgical protection is through Blue Cross-Blue Shield plans. Our employes are enrolled under more than 40 of these local Blue Cross-Blue Shield plans.

We attempt to select from the coverages available at each location that which provides the most nearly uniform protection for all our employes. Our standard is the Michigan Blue Cross Comprehensive Plan and Michigan Blue Shield's M-75 program.

Since Blue Cross-Blue Shield plans are local organizations, the plans which they develop are designed to meet local needs and are influenced by local considerations. In many instances, local Blue Cross-Blue Shield organizations, especially Blue Shield, have not offered plans as comprehensive as Michigan Blue Cross-Blue Shield.

About 70 per cent of our hourly employes now have coverage that is equal to or close to the Michigan standard. It is not our policy to pressure local Blue Cross-Blue Shield organizations to devise plans that are facsimiles of Michigan Blue

Cross-Blue Shield. We recognize that local conditions differ. However, through Michigan Blue Cross-Blue Shield which is our Host Plan, we do let other Blue Cross-Blue Shield plans know that we are ready to accept coverage that is consistent with the levels set forth in our bargaining agreement wherever such plans are made available *to the community as a whole.* We firmly believe that any attempt to secure an exclusively Ford contract could result in an undermining of the community approach.

Consistently with the considerations discussed earlier, these coverages are offered employes on a voluntary and contributory basis. Over 90 per cent of our employes have elected to participate in them.

The costs, to both company and employes, have risen steadily ever since we adopted such plans, and promise to continue to do so. The increases are attributable in part to improvements in the coverages themselves, and in part to the increased costs of providing the services covered. These costs have become a very considerable item in the total labor costs that must be reflected and recovered in the prices of our products.

The increasing cost of providing the covered services gives us particular concern because it is largely beyond our own control.

We could, to be sure, achieve better control of our own costs by going to indemnity-type plans. But, so far, we are not convinced that, in this field, indemnity plans give as good *value* for the money expended as do prepayment service-type hospital and surgical plans. This, coupled with our interest in community programs, has influenced us against embracing the indemnity route to date.

It has been charged that our present system, and, in particular, the service-type prepayment plans, furnish insufficient incentives for reasonable cost controls. We do not subscribe to this. If nothing else, the ever-present pressure for socialization of hospital and medical practice and care should provide incentive enough.

Keeping hospital and medical care costs under effective control should be the constant goal of hospital administrators and the medical profession. Theirs is the primary responsibility, and theirs is the competency to do so without sacrifice of medical standards and the traditional ethics and freedoms of their callings. As customers interested in value received, employers have a responsibility to see that the consumers' needs and interests are accorded real weight. As citizens, businessmen have the responsibility to see that they support only programs that merit their support, and to contribute such advice and know-how as falls within their special competency. But, ultimately, the job can be done only from inside.

At the point where we are negotiating with unions concerning our employe insurance programs, we are fully conscious of the impact that our decisions and actions could have on medical and hospital practice. Because we are aware of this potential impact, however, we have been especially careful to give weight to all of the various considerations I have mentioned in developing the positions we take and the propositions we make in collective bargaining.

The fact is, we and our major union, the UAW, have, simultaneously, a certain common interest and what appear to me to be some distinct differences in ideology and approach when we bargain on these matters.

We have in common, of course, an interest in selecting good insurance or prepayment arrangements at good values for our employes.

Where We Differ

I think we differ, however, on the role that collective bargaining should play in shaping hospital and medical practice as such, and in solving broad community problems. The UAW quite regularly seeks, through bargaining pressure, to force our aid in implementing its social or community objectives. We, on the other hand, have a deep conviction that the collective bargaining arena, designed to resolve labor-management differences over conditions of employment, is one of the most ill-fitted places conceivable for resolving these other kinds of problems. If they were to be permitted to become entangled in the considerations for maintaining labor peace in our plants, it would be bad—both for us and the community.

There is another difference, I think, which runs much deeper. It has to do with our respective attitudes toward the proper role of government, the responsibility of the individual, and the values in our free institutions and traditions. Thus we part company with the UAW with respect to its attitude toward our existing systems and institutions for providing care. We know they can stand improvement, like most other things in this world, but we do not view them as anti-social. And we disassociate ourselves completely from what fre-

quently appears to us to be its war against the medical societies.

To conclude, I have faith in voluntary programs and the ability of the professions and community organizations involved to fulfill the needs of our people.

I am encouraged in this faith by the increasingly abundant evidence that our doctors, our hospitals and our voluntary community organizations are conscious of the problems, aware of their responsibilities and actively seeking better ways and means of meeting them. Given this awareness and attitude, I feel confident that they will be met within the framework of our free institutions.

Hospitals View Financing of Hospital and Medical Care

By George E. Cartmill, Jr.
Detroit, Michigan

THE HOSPITAL'S view of the financing of hospital care has been very much influenced by one special consideration which I think we do not actually come out and state, usually. It involves the question of whether or not the hospitals have a right, considering their basic obligation to the community, to become deeply involved with the problems of financing hospital care.

The thought behind this consideration may be stated in two parts:

1. It is the basic obligation of the hospitals to provide their patients at all times with services of the highest quality, and with whatever care is prescribed for them, regardless of cost.
2. It is up to the patients, individually or collectively, to make sure that the money will be there to pay for these services when they need them.

Unless these two problems are kept separate, it is feared that the economics of financing may dangerously begin to influence the quality of hospital care.

This fundamental consideration in the hospital's view of the problem of financing hospital care has recently been rendered more or less academic by Blue Cross events, the length and breadth of the country, as well as in our own State of Michigan. Blue Cross, morally and legally, must maintain reserves to safeguard the interests of both its subscribers and its member hospitals. For several reasons Blue Cross has found it necessary to set limitations on the payments which hospitals can expect to receive for the care they provide their Blue Cross patients. The price consciousness of the consumer has thus become a pre-determining factor in the operations of the hospital.

May I say here by way of interpolation, I shall not attempt at all to discuss the other limitations which have been forced on hospitals over a period of years. The notorious reluctance, for example, of governments at all levels to pay adequate reimbursement for cost of care to its wards are much too well known in this group to bear any discussion time.

This is the relatively new situation that we face today. With ceilings and limitations, the job of trying to keep a hospital within a state of some solvency these days leads one inevitably to devote a great deal of thought, and some of it may be apprehensive to the future of prepayment and how hospitals should view the problem.

Is this, perhaps, a turning point in the history of the American hospital? Are we leading into a period of budgeted operations, or let us say, hospital progress if and as we can afford it, or is this just an interlude? At this point, of course, we can only speculate.

Broad Study

The first comprehensive analysis of the whole problem of financing hospital and medical care is now being made by the University of Michigan. We are fortunate that it is being made in our state, but I think we must wait until this study is complete before we can expect to develop a new approach to the problem. We are counting on the report to clarify the picture for all of us—for or-

Mr. Cartmill is Director of Harper Hospital, Detroit, Michigan.

ganized labor, for the public, for Blue Cross, and for hospitals—and to give us all an objective base upon which to build.

In the meantime, the best we can do is to try to answer certain questions. Has there been anything wrong so far with the hospital's view of financing of hospital care? What should we avoid? What will probably happen?

The late Prof. Lawrence Henderson of Harvard has been quoted as fixing 1912 as the first year in human history "in which the random patient, with the random disease, consulting a random physician had a better than 50-50 chance of benefiting by the encounter."

This was the year, let's say then, when medical and hospital service began to become things that people would want as aids to health and would want to make sure of having them. And looking at this year 1912, hindsight tells us that it would only be a matter of time before we would see the center of gravity in hospital economics swing decisively from the gift dollars to the consumer dollar.

The period between 1912 and World War II was one of phenomenal progress in medicine and hospital practice. The modern community hospital came of age during that time. But throughout this period, despite the changes and improvements in hospitals and the increasing number of patients they had to serve, hospitals continued to operate without excessive dependence on patient income and with traditional inattention to patient opinion in matters of policy. Income from endowments and gifts provided the backbone of hospital finances, and under this arrangement, consumer attitude, if there were any actually, did not have to be considered, primarily because they were irrelevant to the business of running a hospital.

This period came to an end during the closing phases of World War II. The unprecedented increase in the number of patients that the hospitals had to serve, the increase in the number of services they had to provide, and the increased cost of all the services, combined simply to explode the old economics of hospital care. It was a period when practically all of the hospitals found themselves in serious financial difficulty. Socialized medicine became a serious threat.

It was discovered at that time that the hospitals were doing much better in those areas where successful Blue Cross plans had been established, and some hospitals found themselves impelled by the obvious facts to take a serious view of the financing of hospital care. The national attitude towards Blue Cross changed very rapidly. The building up of adequate consumer income for hospital care became important to the hospitals as a condition for survival. The consumer dollar has become a very important objective in hospital operations during the past ten years, the building up of general consumer income through pre-payment, a recognized hospital interest.

Otherwise, the hospitals have continued to operate in their traditional manner, making their decisions on the basis of dedicated institutional evaluations of their needs. The facts of consumer cost consciousness, while recognized, have perhaps been treated too often as a sort of nuisance that one had to live with.

The present situation is the result of the clash of these two forces, in my opinion—the force of the traditional hospital concept of dedicated progress-centered institutional management, and the force of consumer cost consciousness built up and aggravated through frequent hikes in prepayment costs.

Of course, the hospitals could not have made the phenomenal and remarkable progress they have made during the last 20 years, had they budgeted themselves according to what the consumer at any time thought was the most he could pay for hospital care. The consumer's notions of what the best hospital care in the world should cost certainly offer no objective criteria for hospital management.

It is not my theme that hospitals should have adopted at any time the policy of budgeted quality or budgeted progress. What I am trying to say is that where we may have failed was in establishing a community of real understanding between the hospitals and the consumers.

The Background

The present situation did not come as a surprise to most of us, I am sure. Prepayment spread rapidly. Before we knew it, about half of Michigan's population was covered by Blue Cross-Blue Shield. In our dealings with Blue Cross, we had to accept the fact that costs are a very important consideration. Slowly, and certainly not always without resistance, but very definitely, we became cost conscious in our operations. The uniformity of the payment we received began to impose an inescapable leveling of service. This was something

none of us liked, but we had to get used to it, and we did, and did pretty well under it.

The reimbursable cost formula introduced after World War II is another fact that imposed considerations of cost in the planning and management of our business. In contrast, the more the hospitals felt the pinch of this increasing emphasis on cost, the more demanding the customers became with their demands consistently way ahead of their willingness to pay.

We can say, with justice, I think, that we have done our best during these dynamic and confusing years to adjust ourselves to the realities of pre-payment. The phenomenal growth of voluntary pre-payment can be considered evidence of some weight that we in the hospitals have worked hard to make it a success. All this is true. All the things I have mentioned and many more can be offered in evidence of the sincere and consistent efforts that the hospitals have made to make voluntary pre-payment an adequate and economically satisfactory vehicle for financing hospital care.

We did all this, it is true, but there is a question, or a couple of them, that we should ask ourselves. Is there some reason for feeling that while we did all this, our deep inward impulse all the time was not to come face to face with the consumer, but to deal with him at arm's length, as it were, or second hand, through Blue Cross? Did we strive too much, perhaps to maintain an unwordly attitude toward the consumer dollar and consumer opinion? Has our attitude in its way been excessively pre-1912, when hospital and medical services were things we philanthropically provided for the patient, and were not things which he was prepared to pay for and fight for as the basic necessities of life, and as essentials for all of the hopes he has for his family's happiness and his own success?

This may be where we missed the boat. Prepayment works basically through the mechanism of group enrollment. When an employee group is enrolled, the hospitals acquire or organize cohesive groups of consumers among whom communication is simple and easy. Their common investment in pre-payment gives them a potential common economic consciousness about hospital costs, and this potential common consciousness can be changed into a strong group reaction in the event of a few rate raises, or a few impressive grievances. We are not selling carpeting or shrubbery. The services we deal with touch the deepest of human emotions.

Many of these consumer groups, these enrolled groups, are organized and belong to larger national groups of organized labor. We have created, through prepayment, a large monolithic community of consumers, bound by a common tie and capable of expressing their dissatisfactions either with the services or their cost with disturbing and effective force.

Politicians have come to recognize the advantages they can gain by exploiting the dissatisfaction of our consumers with the cost of our services. As a result, the government has made an ominous back-door appearance on the scene, raising a serious threat of government regulations of hospitals. These are facts, I believe, we should consider most carefully in trying to come to understand the possible errors of the past that may have brought us to this present situation. These facts about the new consumer-based economics of hospital care cannot be ignored, we are quite certain, if we are to appraise soberly what we are to expect in the future.

Two Schools of Thought

The present hospital view of the financing of hospital care is centered about the facts and consists for the present of two schools of thought. A certain number of hospitals have taken a standing against the present Blue Cross formula, which imposes limitations or ceilings on Blue Cross payments. Their objections cover four important points as I see them.

1. The Blue Cross action contradicts the accepted view that Blue Cross is the agency of the hospital.
2. Hospital costs are justified, and there is no reason why hospitals or Blue Cross should apologize for them.
3. The Blue Cross formula, in its present state, is unworkable, because it is complicated and therefore not susceptible to proper administration.
4. The Blue Cross action takes the responsibility for the control of the quality of hospital care out of the hands of the hospitals' governing boards, which are made up of true representatives of the community.

On the other hand, there are other hospitals in the state whose directors believe that the broad community acceptance of its programs, which Blue Cross has achieved, is one of the most important aspects of its success and the real strength

at the present time of the voluntary non-profit hospitals. Moreover, Blue Cross did not achieve its success unilaterally, but with and through the active support and cooperation of tens of thousands of citizens, including leaders in organized labor, management, farm organizations and other groups of citizens. The whole movement has been built up through community effort with consumer's money and consumer's confidence. Blue Cross has become the symbol of a way of hospital care that is today identified with the voluntary non-profit hospitals.

For these reasons, say these hospitals, it must be recognized that the consumers, above and beyond their enormous economic power have a moral right to be heard and considered. The consumers have their views about the justification of present hospital costs. They may be wrong, as I think they are, but even if they are wrong and completely wrong, they have a right to be heard, and they have a right—while the situation is confused, as it certainly is now—to have their day in court.

These latter hospitals believe that the Blue Cross formula is a sensible recognition of the needs for a self-imposed limitation to carry us through the present emergency. While Blue Cross is the agency of the hospitals, it is their agency in a community undertaking that constitutes, for all concerned, a great public trust, and its obligations to its members and the public in general should be faithfully honored by the hospitals as being, in effect, their obligation and their trust. These are, in my opinion, the two major hospital conditions in Michigan at the present time. Until the University of Michigan study, which I mentioned earlier, is completed, and we have the data for a broader appraisal of the whole problem, these two positions will undoubtedly be firmly maintained.

The Two Sides of the Coin

Looking ahead to what we may reasonably expect, it is a safe assumption, I believe, that when the present emergency has passed, the view of Michigan's hospitals on the financing of hospital care will be a workable compromise between the two positions. There are vital prerogatives which the hospital cannot sacrifice to the opinion of the market place without actually destroying the sources of its energy and unparalleled progress. But it will also have to be recognized, in the process of compromise ahead of us, that the consumer is not paying peanuts for his prepaid coverage, and that methods must be devised to bring greater stability to the financing of hospital care. The consumers have a grave responsibility with the hospitals in this try for stability.

In the hospital's view of the financing of hospital care, it is imperative, I am convinced, that we prepare ourselves for one inevitability. This is that a considerable degree of budgeting will be the lot of hospitals for some time to come. I believe it is imperative that we accept this inevitability in our working view of the financing of hospital care, because if we do, then we can begin to adjust ourselves at once to the habits and methods of working under these conditions.

The role of the hospital in the health of the community is greater than it ever was. Therefore, let us face the problems of this emergency realistically and concentrate our energies on the important business before us. This is how to negotiate successfully, under restricted economic conditions, the necessary improvements in the quality of our services, and maintain the tempo of progress that has distinguished our hospitals thus far in their career.

The Physician Views Financing of Hospital and Medical Care

By Max Lichter, M.D.
Detroit, Michigan

THE PROBLEMS in planning prepayment medical care programs faced by physicians are manifold and quite complex. I do not think that I know all of the problems, nor can I say I understand all of those of which I am aware. The problems would appear to fall into two main areas:

1. Those which arise out of an understanding of what needs to be done, with recognition that practical measures can be developed to achieve a solution.

Dr. Lichter is chairman, Medical Care Insurance Committee of the Michigan State Medical Society.

2. Those which arise out of a firm conviction that there are deeply rooted traditional relationships which are not readily amenable to change.

It would appear at first glance that there is a degree of incompatibility between these two major areas which I have mentioned. While the two views may seem irreconciliable, both can be united in a single area of understanding. You will find few physicians who disagree with the philosophy and even the necessity of pre-payment in medical care. There will be disagreement in the method of implementation, however.

It must be remembered that the practice of medicine, which can be regarded as an Art, is something which is personal and intimate. Because it is so very basic, the relationship that exists between a patient and his physician can never be minimized or dismissed as inconsequential. In the final analysis, the patient deals face to face and alone with his physician; and the physician deals with one patient at a time—singly. As you well know, this condition has legal and moral and ethical status. On the other hand, this transcendent relationship should not be used by some physicians as a major and overriding reason for not favoring or encouraging the development of methods to make medical care more available from a financial standpoint. Therefore, any planning must bear in mind the legitimate feelings of physicians in their sincere desire to keep the practice of medicine the personal Art which it is.

The practice of medicine being what it is, not solely a scientific and objective pursuit, is inherently inefficient when measured by economic standards. While patients' problems may fall into very broad categories, there are many niches within each category which defy precise measurement. A symptom does not always mean a specific illness or disease. Take for example a pain in the epigastrium. It could mean an ulcer, gastritis, gall stones, pancreatitis, retroperitoneal tumor, worry, anxiety, anger, or overindulgence. There is no single simple way to determine what is producing this simple symptom. Within the limitation of practicality no minimal set method of testing could pinpoint the cause, though it might indicate a possibility. But even if a simple set of testing procedures could be devised there is one ingredient that could not be mixed into the "batter," and that is a physician's judgment, which is achieved by his knowledge, experience and interest. Any medical care planning which negates this premise is adding to the problem rather than dealing with it.

Economics Cannot Be Overlooked

One might say that an ideal situation would be one in which the physician keeps himself completely detached from the financial side of medicine while he is rendering the highly-motivated service which only he can offer. While this viewpoint is idealistic there is certain weakness in the position. Generally speaking, all physicians are dedicated within their capabilities to their profession. However, it must be remembered that fundamentally physicians are human beings having the same ambitions and aspirations all people have, the same desires for status and position, and subject to the same impact of our ever changing socio-economic culture. The plain fact is that physicians want security, homes, families, the good things of life, all of which come from hard work and human striving. The degree to which they achieve these cannot be answered solely by outside forces.

What must result is that physicians should be left free to deal with the professional aspects of medicine. But there must be inherent in any planning a stabilization of the economic aspect of the practice of medicine. This can be done by physicians. Both of these major points will work in the interests of the patient and of his physician.

Prepayment for medical care is still relatively new. It is an approach which is still in its evolutionary development. By no means has there been a solution to this worthwhile project. Certainly the very rapid growth, as measured in terms of tremendously increasing enrollment in plans, thoroughly reflects the value the public places on medical services. Further indcated is the great interest on the part of the public in being able to meet the cost of medical care services when they are needed. We are still groping for answers, methods, and, most important, for understanding. If we keep this clearly in mind then problems can be faced in a cooperative effort to resolve them. This can only lead in a dynamic sense to an ever-improving program.

Each Is Important

In terms of a cooperative approach, it can be recognized that medicine, management, labor—all interested in the welfare of the consumer of medical care—each have their important role to play. Management, as a community force, contributes

greatly to the financing and purchase of medical care, and should therefore be conceded a legitimate interest in medical care planning. Labor should be recognized as a community force representing the consumer's interest and having a legitimate role in planning.

In the triad—administration, financial, professional—of medical care plan functioning, it should be accepted that management and labor have a proper role in administration and finance. However, they cannot intrude themselves into the professional side of medical care plan operation. This should, in a cooperative sense, be left exclusively to the medical profession. Certainly, the desires of the consumer should be carefully considered by physicians in this regard. It should be pointed out that what may be desired and what may be necessary are not always related and should be subjected to the test of what is practicable.

Only physicians have the necessary understanding of what really is the practice of medicine and what really constitutes the needs of patients in terms of medical care. I do not mean that physicians should be dogmatic in this position, but, after sincere cooperative discussion, the final decision in such matters should be left to them. This would require a considerable degree of interest upon the part of physicians in the matters of administration and financing the cost of medical care. I am sure you will agree that physicians are capable of such understanding and would, in an atmosphere of cooperative discussion, consider the judgment of those better qualified in these areas than themselves.

One of the major problems facing physicians in the financing of medical care is their fear that their freedom might be compromised. Some of this cannot be regarded as being unfounded. For example, there is strong advocacy for changing the method by which medical care will be furnished. The physician will not be recognized as an individual entrepreneur, but rather as a cog in an automated machine. Any planning which is disruptive in its character can only be achieved by disruptive means. This must be avoided in the interest of cooperative solution of problems.

The Question of "Quality"

Another factor in the physician's uneasiness is the seeming impugning of his ability to furnish good medical care. So much has been said about "the quality of medical care." This is something which is very difficult to understand, because we cannot perceive any precise method of measuring this in terms of any new system of financing medical care. We know that physicians always strive to keep abreast of the technologic advances in medicine and to improve their understanding of the problems of people. We of medicine, by our own volition, without any coercion by medical care plans, have developed methods of individually and collectively improving our abilities. I am sure that all of you are familiar with the Joint Accreditation Commission and the wonderful strides it has made since its inception a few years ago. As one contemplates its objectives and progress there need be no fear that the equality of medical care will not be a concern of the medical profession. This intangible "quality" is measured by the inward feeling of immense satisfaction that an individual physician experiences when he knows that he has done his job well. How does one measure the sense of satisfaction a patient has with his medical care? Isn't this an important factor to be considered in equating "quality"? Since it is so intangible a thing, "quality of medical care" will probably defy precise measurement.

There may be isolated instances where poor medical care is furnished by individuals. These are obvious to anyone. But they can be dealt with by physicians. You cannot indict an entire profession on the basis of transgression by a relative few. I would point out that we think no less of the worthiness of the labor movement, because of a mere handful of rascals in its ranks. Defectors in industry do not bring wide calumny on the heads of management because we hear of an occasional sinner.

A Look at the Record

Statistics can demonstrate the effect of improved medical techniques and practices on such things as infant and maternal mortality, morbidity and mortality rates, and on increased longevity. This was accomplished before the financing of medical care became so widespread and has continued through the infancy and even in the face of opposition to such planning. Such steady improvement will continue regardless of any impetus by, or the ultimate role of the pre-payment of medical care. It comes about only by the dedication and motivation of a profession.

Another thing in this connection that may confuse physicians is, if they are deficient in rendering

quality medical care now, how would a new method of furnishing medical care improve the situation since the same physicians, produced by the same medical educational system, taking care of the same patients, would be needed to furnish the medical care in a changed system. No, it isn't schemes for providing medical care that affect the quality of that care; it is physicians who, under any circumstances, affect the quality of medical care.

Another problem that concerns us is the seemingly overweening preoccupation with the cost of medical care. As a matter of fact, we should admit that this is really the major reason why the financing of medical care concerns all of us. This is a valid factor which deserves a lot of consideration. But when it is used as a major argument to criticize a profession and to imply that we are "out to get all we can" a natural sense of resentment arises. And the same feeling arises when cost furnishes the main reason for changing the way medical care is provided.

I would like to know just what is proper cost in financing medical care? To what do we relate cost? What is our bench mark? Or to put it another way, what is the point we must reach where cost is not a factor? When these questions are answered we then might understand what our critics are talking about.

We know that the total cost of medical care has been rising, but you are aware that physicians' fees have not increased proportionate to other services in our economy. It seems a bit paradoxical that prepaid medical care coverage was devised to enable people to avail themselves of more and more medical care; and yet when people do this which they have been encouraged to do, and physicians thereby are rendering more and more service to patients, we find ourselves charged with being responsible for the increase in these costs. We find it strange that in view of the enormous advances in medical technology which have been so great a boon to mankind we are charged with responsibility of increasing medical costs.

I would say that medicine can contribute much to the solution of problems if we can dispense with rationalizations. The least change in medical practice and the greatest amount of service to the public should be a major objective of planning. I am sure that medicine is willing to recognize the role of other interested groups provided these groups are willing to recognize the role of medicine. Cooperation and cooperative discussions will bear fruit if they are nurtured in an atmosphere of sincerity.

Leadership Has Arisen

Medicine can provide leadership of a reasonable character which will prove valuable in dealing with problems. There is ample evidence that once again this is occurring. Leadership arises, always, when it is needed. It must not be thought that "it is too late." Nothing is ever "too late" when its awakening is for the common good. This leadership can interpret to both the public and the profession the problems and solutions in the financing of medical care. The profession would maintain an awareness of the changes occurring in our economic climate, as an important part of it, but not as the cause requiring the changes. Within the frame work of its basic philosophy, medicine can adapt to the changes in our culture.

In Michigan we have resumed in the last two years our role of leadership. As you know, we have developed a "Statement of Principles" which state what we feel the people of Michigan are entitled to; the commitments we, as an organized group of doctors, will make in support of our Principles; the benefits we insist must be incorporated in any acceptable pre-payment plan. In our Principles we insist that all matters pertaining to the professional side of the practice of medicine must be left in the hands of physicians. We have a means prescribed for the review of the actions of our members in relation to the implementation of the program. We have provided a means by which the public, as well as insurance carriers, can come to the Michigan State Medical Society with any problems which may perturb them. We offer to any insurance carrier or plan which will abide by our Principles the endorsement of the Michigan State Medical Society.

We recognize that one of the most important responsibilities of the Michigan State Medical Society is that of communicating with its members. To that end in 1958 there was conducted a rather intensive professional relations program carried out by the PR staff of the Society. Prior to that a great number of meetings were held in each of the Councillor districts of our State and, in addition, many explanatory meetings with hospital medical staffs. In addition, quarterly reports of activities in this field are prepared and distributed to each member and alternate of the House of

Delegates, the legislative body of the Michigan State Medical Society. We realize that much more needs to be done on a continuing basis.

Medicine's Rightful Role

I can tell you that the members of our state society are more aware than ever before of prepaid medical care insurance. There has been a certain amount of opposition based chiefly on some of the factors I have enumerated. There may be other reasons, but they are a bit too abstract to discuss at this time. However, I feel that this opposition is good, because it keeps the subject before the eyes and ears of our members, and because it improves and deepens our thinking on this very important subject.

Medicine should not be placed in a position where it feels it must meet threats and therefore must be defensive. It must be assigned, and accept a leading role in coping with the problems involved in the development of acceptable means for financing medical care. Medicine should not be made to feel that it is a whipping boy for consumer representatives on one hand and the problems faced by hospitals on the other. Medicine should not be made to feel that it is being dictated to or negotiated with; it should be made to feel that it is a full and leading partner whose wise counsel should be sought. We should not be made to feel that the method by which professional services has been furnished over a great many years is no longer any good. Rather, means should be developed for continuing the private practice of medicine as a very worthy and personal thing.

I would say that we intend to maintain our Principles, recognizing them as an instrument capable of flexibility and therefore subject to change in the best interest of our patients and of physicians. We intend being temperate and interested in obtaining cooperation. I feel that our "Statement of Principles" represents a summation of our experience and understanding developed in the past twenty years. We have learned much but we recognize that there is much more to be learned. We feel that we have made important strides.

Blue Cross Views Financing of Hospital and Medical Care

By H. G. Pearce
Detroit, Michigan

THE PAST twenty-five years have established the fact that hospital and medical care are to be financed on a gradual payment basis rather than at the time of service. Prepayment and insurance growth are evidence of this fact. We have left behind the day when only the sick, at the time of their incapacity, were required to carry most of the cost of the medical system, including standby facilities and much of the teaching.

Our views on the financing of hospital and medical care must, therefore, take into account the continuance of a gradual payment method. In fact, we have every indication that the public wants this method to expand to include all hospital-medical services having financial impact greater than can be met out of current earnings at the time of service. The Blue Cross Plans with the broadest benefits have had the most rapid growth; the major medical form of insurance with its A to Z benefit range has had spectacular growth; and, the comprehensive, panel, and closed practice types of prepayment have expanded in number and subscribers.

But this picture of expansion has been clouded by a likewise growing public concern over the mounting cost of hospital and medical care. Each rate increase in Michigan has caused a greater number of people to seek narrower forms of coverage at lesser rates. The losses to date, following the most recent Michigan increase, are twice those of the comparable aftermath of the preceding increase in 1957. Major medical reached comprehensiveness only through compromise with costs by inflicting heavy deductibles and coinsurance to be borne by the patient at the time of care. These are the tangible evidences. The intangible evidences are far greater and more important.

They are the "handwriting on the wall." The

Mr. Pearce is Director, Enrollment Division, Michigan Hospital Service (Blue Cross).

sometimes farcical, sometimes tragic, and sometimes constructive insurance department hearings; in the legislative chambers; in the newspaper editorials; in the union halls; and, in the industrial budget conferences. All speak with one voice, "The cost of hospital care is high and still going up. Is all this cost necessary? Is all this money wisely spent? Can we get the hospital care we need for less money in some other way?" Why, why, why?

Facts Behind the Costs

Most of us here know the basic reasons for the increases in hospital costs:

1. Higher ratio of labor cost to product cost than exists in most of industry.
2. Updating of substandard wages and hours.
3. Expansion of costly facilities, services, and personnel due to rapid medical progress.
4. Added demands by a more enlightened public.
5. More care for more aged people.

We know these are the factors, but have we conditioned our buying public to ready acceptance of them? Have we elevated those costs to the priority position they deserve in the general economy? Have we found their *proper* position in the economy, and what are the factors which determine what priority the public will place on health costs and their payment? The answers to such questions are the key to our mutual salvation.

On St. Patrick's Day, 1939, a good County Cork Irishman, John F. Houlihan, Detroit Manager of The John Hancock Mutual Life Insurance Company, became the first of today's some 3,600,000 Michigan Blue Cross members. He paid $1.90 a month for his family group hospital plan.

Last month, March 1959, Mr. Houlihan paid $12.63 for his and his wife's Blue Cross protection. In round numbers, Mr. Houlihan is now prepaying six and one-half times as much for Blue Cross as he did in 1939—twenty short years ago. His hospital benefits have been broadened materially because the scope of services available in a modern hospital is much wider now than it was then. The fact is, nevertheless, that Mr. Houlihan, now retired, must pay at least six times as much for a good hospital care prepayment plan as he paid for the best plan available to him and his family more than twenty years ago. Most of the added cost is not the result of added benefits.

In a recent publication, Mr. T. Coleman Andrews, former U. S. Commissioner of Internal Revenue, tells us that inflation and taxes together have robbed our dollar of about two-thirds of its purchasing power in that exact same twenty-year span.

In the present economy, Mr. Houlihan needs three dollars to do the work of one 1939 dollar, but his hospital prepayment requires more than six dollars to do the work of one. Mr. Houlihan, because he is retired, not only finds his dollars weaker, but finds they are fewer at the time when his medical and hospital needs are greater. He represents the side of our market referred to as "individual." The balance we refer to as the group market, and its problems we find are much the same. Why are costs up? What can we do about them?

Some Basic Reasons

The character of the group market has changed drastically since World War II. There has developed a strong trend toward centralization of business and industry into fewer and larger companies. Presently, more than 60 per cent of the employed population work for organizations that employ in two or more states.

During the late forties, the purchase of hospital and medical benefits were recognized as a matter for bargaining between management and unions and became a regular and tangible fringe benefit. Now more than 65 per cent of our Michigan subscribers have some employer contribution toward the cost of coverage—most of them have one-half.

The purchasing authority has been narrowed from millions of individuals to thousands of employers and unions. This change has removed much of the flexibility of the former market because the cost of hospital care must be weighed and made a part of long range budgeting for most employers and unions. Even non-union employers and employees are affected by the pattern of benefits and prices accepted in the bargaining structure. While we have had an expanding economy and general inflation, the governing forces affecting the general economy have created some regularity, thus facilitating future planning and budgeting.

Against this pattern, the providers of service and their fiscal agencies have imposed unexpected costs with greater than usual unpredictability and with more inflation. The extra inflation, while not commonly understood, is probably the more

justifiable and more capable of being explained and appreciated. We have no real indication that hospital and medical care have priced themselves out of the general economy; although there is strong argument that, for many people, hospital costs have priced themselves beyond the priority they are willing to accept. This calls for reassessment by the providers and the buyers. Buyers need a greater appreciation of the vitality of hospital services and the providers must not overplay the vital nature of their services. Our economy has not eliminated misery, suffering, or poverty.

Long Range Planning

The greater problem very easily stands to be the unpredictability of the providers' cost pattern. Because the elements contributing to hospital inflation are different, their cost results will be different, but we must not add to this difference through lack of understanding of the buyers' economics or through lack of coordination and planning. Our economy will afford the best, but there are times when new facilities, services, and incomes can be expanded and times when they cannot. There are barometers that can indicate those phases.

The American economy is a dollar economy. In one way or another, our plans, our objectives and, in fact, our ideals must be molded in phase with this dollar economy. The forces affecting the economy are large and must be reckoned with by like forces, even in the health care field. The economy is patterned and subject to more central control than ever before. Elements living from the economy must phase into it or suffer hardship or exclusion. There is less room for individualism in this respect than in most other aspects.

Hospitals have need for a fiscal agency capable of dealing with these economic forces on their plane. One with sufficient scope to become an economic barometer to both the public and to the hospitals, by properly analyzing fiscal developments on each side and properly converting such information for the intelligent use of the other parties.

1. The system needs more *planning* in the replacement and construction of facilities. Heretofore, our main financial consideration has been the procurement of capital or credit before proceeding. The subsequent upkeep or use costs have later contributed to the cost repercussion. These matters can be projected to the buyers in a manner that will assure maintenance costs before construction begins or tell us this is not the time.

2. In addition to the above-mentioned projection, there are numerous other matters of a financial nature that require more *coordination* between buyers and all providers of health services. Buyers' benefit needs as well as cost considerations need to be evaluated and balanced against available hospital facilities and hospitals' cost requirements, and vice versa.

3. As has been pointed out, possibly the most outstanding financial problem has been the untimely *scheduling* of cost increases. There is greater need for sensitivity to the financial effects of recessions and prosperities as well as the lesser changes between. Cost increases passed on to the public must be strategically timed in relation to financial ups and downs. Planning must be such as to permit scheduling of costs up to three years in advance if we are to come into phase with most buyers' budget requirements. Major changes affecting cost probably should be scheduled as much as five to ten years in advance.

Must "Communicate"

4. There is need for much more *communication,* explaining the nature of hospital financing to buyers and the public. We must convince them that hospitals are well and efficiently run in the public interest. This entails the imparting of understanding of the unusual make-up of hospital costs as compared with industry in general. We must communicate facts about cost changes farther in advance to permit the market to be properly conditioned to the changes.

5. We have established, at least to my satisfaction, that most hospital income will come from fiscal agents who employ the *insuring* principle. The risk involved is great enough that it cannot be shouldered by one or two hospitals or one or two groups. The insuring agency must be large enough to carry such risk and large enough to sense general economic trends in behalf of hospitals and buyers. Such agencies must also be large enough to help absorb and schedule the impact of noticeable cost increases. Such insurers must accommodate the smallest and the largest buyer's needs in order to stablize hospitals' income and offset the threat of governmental intervention. In turn, the continued sale of voluntary hospital benefit programs is dependent on a more stable hospital cost

situation. Price has become almost the most important aspect of the product.

6. *Subsidy* has become a growing element in the hospitals' financial picture. While, in the main, cost resistance has come from persons who are reluctant to place a sufficiently high priority in the budgeting for hospital services, the percentage of persons who are unable to fit such costs into their budget is growing. More persons are on fixed income and more people become "medically indigent" as the cost of hospital care advances.

The danger of governmental intervention based on this problem is great. Because the impact of this problem does not fall evenly on each hospital or each group of people, the problem must be spread across the shoulders of those able to pay. This must be done by insuring agencies and involves more than insuring the risk. Actual subsidy of certain classes of risk are involved by loading the risks who are able to pay their way and a little more.

What Must Be Done

The spreading of subsidy costs is no easy job in the voluntary market. It requires the utmost in community mindedness and this spirit tends to slack off in times of spiraling costs. Everybody must sell this concept and nearly everybody must accept it. This is a "must" item in the voluntary field. It virtually outmodes experience rating by insurers.

Most hospitals and buyers need a large fiscal agent through which this obligation will be discharged. Charity and voluntary donation can no longer carry this load.

7. The financing of hospital care must be approached in large scale. It is big business with significant effect on the general economy. All of the foregoing aspects of the problem must be approached in *wide scope*. Particularly the matter of subsidy requires that the insurer have scope enough to recognize the problem and to spread it.

8. *Service* is an all-important aspect relating to the financing of hospital care. The buyer must feel he will receive good hospital service, particularly when he is asked to pay more. In the prepayment sense of service, the buyer wants assurance that what he is asked to pay will substantially cover his hospital costs. There can be no major gaps after benefits have been delivered. Service benefits become increasingly harder to sell as costs increase because the full impact must be reflected in the rate. This is better than having cost impact at the time service is used, but not always appreciated in advance.

More than a Buffer

Blue Cross has been a buffer between the buyer and the provider in much of its past experience. It should function more nearly as an intermediary between buyer and provider in the future. Blue Cross has been looked to for cost counsel by buyers, and to a degree has functioned in this capacity. This function needs development, which should follow as we are brought into more planning and scheduling of hospital expenditures and become more capable of forecasting for buyers.

Because of the economic throes of 1958, and to a degree in 1959, Blue Cross was catapulted into the area of hospital cost limitation through the expedient of a more limited payment formula. This was simply a matter of economic survival and, admittedly, not a fully developed program with all of the quality and incentive factors we would like. Every effort will be expended to accomplish this refinement.

Studies and research, such as are now being conducted by the University of Michigan and the Blue Cross Research and Development Committee, are necessary to the finding and justification of the hospital cost priority in the economy. Meanwhile, it is necessary to remain attuned to the requirements of the present economy and to establish the maximum public understanding and confidence with whatever tools are available to us.

Commercial Insurance Views Financing of Hospital and Medical Care

By Joseph F. Follman, Jr.
New York, New York

IN DISCUSSING the views of insurance companies toward the financing of hospital and medical care and in considering the financial problems which are presented and the solutions which are given consideration, it would appear of value to sketch, first, the background for such a discussion and then to proceed into the areas of specific interest here.

There are several basic developments which underlie such a discussion.

One of these is the rapid and radical evolution which has been proceeding in the provision of medical care in recent years. Included here are the introduction and wide use of the many so-called "miracle drugs," the equally miraculous new surgical procedures now commonly employed, the increased availability of medical care facilities, the increased public acceptance and use of hospital and medical care facilities, and the revised concepts of care in and out of the hospital, including the increased employment of nursing home, out-patient, and home care facilities.

Another development lies in the changes which have been taking place in our socio-economic existence as a people. The past two decades have been identified with a generally high standard of living, an ever-increasing mobility in our population, a high degree of personal taxation, smaller dwelling units, and a high degree of installment purchasing and mortgage indebtedness. Our birth rate has been rising rapidly. Our mortality rate has been declining. The proportion of our population over age sixty-five has been increasing. This latter can only mean an increase in chronic or longer term illnesses with an increasing demand for medical care and the use of medical care facilities.

The effects of these developments on the use of our medical care facilities are demonstrable in many ways too numerous to mention here. But they are broadly indicated in a brief glance at the personal expenditures of the American people for medical care. The Social Security Administration estimates that in 1957 the American people spent privately 15.1 billion dollars for medical care and health insurance. Of this amount, 11 per cent was paid directly to hospitals, 17 per cent to doctors, 11 per cent to dentists, 26 per cent for medicines and appliances, and 6 per cent for other services and forms of care. On a per capita basis, this amount was $88 compared to $52 a decade earlier. In terms of disposable personal income, however, medical care represented 4.94 per cent in 1957, compared to 4.03 per cent in 1948, an increase of less than 1 per cent.

These brief data serve to illustrate the high degree of utilization of medical care facilities in the United States and the proportions of the monetary expenditures for these services. . . .

Concommitant with these developments has been a marked evolution in the manner in which medical care is being financed. Perhaps the most pronounced of the changes in this area has been the rapid growth of voluntary health insurance as a means by which people spread the economic risk inherent in accidents and illness. Today, 121 million Americans have some protection through voluntary health insurance against hospital costs, 109 million against surgical costs, 73 million against regular medical costs, and more than 16.5 million against the expense of prolonged catastrophic disability through Major Medical expense insurance. Nearly two-thirds of the employed civilian labor force has some protection against wage loss due to disability. Last year, voluntary health insurers paid more than 4.8 billion dollars in benefits, an increase of 14 per cent over 1957. More than half of this amount was paid by insurance companies.

Meanwhile, qualitative improvement of coverages has kept pace with quantitative expansion. Benefits are now far more adequate than formerly in amount and duration. Guaranteed renewable insurance has become much more generally available. Coverages are more realistically designed. Protection is rapidly being extended among such

Mr. Follman is Director of Information and Research, Health Insurance Association of America, New York, N. Y.

specific population groups as the aged, those living in rural areas, and those employed in small groups. In a recent study of health insurance, the authors have commented that the insurance companies have demonstrated a capacity for great flexibility and imaginative improvisation.

It is significant that voluntary health insurance in the United States is made available in many forms and by various types of insurers. These include insurance companies, service plans like Blue Cross and Blue Shield, group medical practice plans operating on a pre-payment basis, plans that are self-administered by employers or labor unions, community plans, fraternal societies, and rural and consumer health co-operatives. Coverage is provided on an individual, family, association, or group basis. Each type of insurer has its distinctive approach, providing the buyer of insurance the opportunity to choose the kind of plan and coverage best suited to his needs and ability to pay. While the resulting heterogeneity can at times appear confusing and can present impediments to a ready simplified understanding of the subject, it is necessary to recognize that many of the aspects and concepts of voluntary health insurance must still be looked upon as experimental and that this form of insurance, like medical care itself, must remain in a state of evolution.

How, then, might this background be summarized? Perhaps Heraclitus provided the most apt summary for us centuries ago when he said, "Everything is flux." If there is any thought which should be held paramount in any consideration of the financing of hospital and medical care today, it is probably this aphorism from the classical world of the ancients.

Views of Insurance Companies

Against this brief background, what might be considered the views of the insurance companies? While it is impossible to represent the opinion of all insurance companies, the following might be considered some of the basic views currently and generally held.

1. *Validity of the Private Voluntary Approach.*—Insurance companies today are convinced of the validity of the private voluntary approach as basic to insuring against the serious costs of medical care. They have faith in the ability of voluntary mechanisms to adequately answer the challenge with which they are presented. As insurers they are striving with determination toward this end. They do not believe that it is the most efficient use of the insurance dollar to spend it for coverage against medical costs which are not serious to the individual or which can be anticipated and hence budgeted against. They, therefore, do not believe it in the public interest to provide insurance against the total of all forms of medical care costs. They are convinced that a given number of available dollars, be they those of an individual, an employer, a union, or a government, can be used to best advantage by providing protection against the more sudden and sizable medical care costs as contracted with either incidental or total costs.

2. *Care for the Indigent and Needy.*—With respect to that segment unable to finance the cost of health care for themselves, because of their limited or non-existent means, insurance companies take the view that such persons should have assurance that health care is available to them when they need it. To that end, insurance companies support the concept of public assistance programs to supplement the effects of voluntary agencies. As a service to the community, the insurance companies stand ready to make their knowledge and facilities available to assist in the administration of such programs. The public Funds available for medical care for the indigent and needy should at all times be sufficient to guarantee medically adequate care. If this were so, much of the present difficulty in financing hospital and medical care would be eliminated and hospital deficits would be greatly relieved.

3. *Equality of Payment.*—The majority of hospitals providing acute illness facilities are voluntary non-profit institutions depending upon patient income as their principal source of operating revenue, while otherwise depending on public support through voluntary contributions. Except for the public support and voluntary contributions, the rates which they would have to charge patients would be higher than those they now charge. This income category embraces not only cash paying patients, but also those patients who have their care financed directly or indirectly by third parties. The hospital's operating income, therefore, is largely determined by the hospital's pricing policies and the relationship between hospital cost and charges. It is recognized that pricing policies are properly the prerogative of the individual hospital in de-

termining the relationship between cost and charges for special accommodations. However, the hospital as an institution exists to provide service to the public as a whole with the level of charges for such services generally determined by the type or accommodation used. Since the hospital is a nonprofit institution, the overall charging policy should ideally operate to produce sufficient revenue to offset the operating cost during a fiscal period. However, in practice there is often a substantial differential between established charges to individual patients, and the amounts paid by large-scale contractors who, under certain conditions, guarantee payment for all their clients for the same accommodations. This practice, in the opinion of insurance companies, is inequitable to the public since it supports a discriminatory pricing policy which may either ultimately place the hospital in an unstable financial position or financially penalize the patient who pays for his hospital care at the higher level of reimbursement. It is the view of insurance companies that hospitals are entitled to be reimbursed at the same rates by all patients who pay for their own care, whether they pay themselves or through any form of prepayment or health insurance protection, and that it is in the public interest that the hospital charges be based upon sound cost accounting principles and that the charging policies developed by individual hospitals apply uniformly to all patients varying solely by the type of accommodation used.

4. *Free Competition Among Insurers.*—Previous reference has been made to the heterogenity of the institution of voluntary health insurance and why this is so. Insurance companies are convinced of the wisdom of this. They are convinced that monopoly has no place, nor should it have a place, in an area of such vital public and personal concern as modern medical care. Monopoly, whether public or private, tends to become irresponsive to changing needs and demands, to form a fixed pattern, and to become complacent. The keen competition which exists among insurers of all types in this country has spurred experimentation to devise new and better benefits and approaches.

5. *Freedom of Choice.*—Insurance companies are fiduciary institutions. They are not incorporated by the legislatures of the several states to provide services. Hence, they do not fight fires, bury the dead, care for widows and orphans, fight off bank robbers, repair damaged property, nor care for the sick or the hurt. The contracts they make with their insured provide for the payment of certain sums of money under stipulated conditions in the event of the occurrence of the loss insured against. Corollary concerns extend in one direction to the prevention of the loss insured against and in the other to salvage or rehabilitation after the loss has occurred. Hence, in the area of health insurance, monies are paid under three basic circumstances: (1) death and dismemberment as a result of accident, (2) loss of income as a result of sickness or accident, and (3) the occurrence of medical care costs resulting from sickness or accident.

This being the case, it is self-apparent that, within the confines of the insurance contract, health insurance as written by insurance companies permits complete freedom of choice on the part of the covered persons as respects the provision of their medical care. It, furthermore, provides non-interference with the doctor-patient relationship. It is the view of insurance companies that it is for the insured-patient, in consultation with his physician, to determine the form of care or treatment necessary under the circumstances. By this approach, maximum flexibility in the provision of medical care in relation to medical need is made possible. Today, it is not infrequent in certain circles to hear the charge made that the primary criticism of voluntary health insurance is that it exerts no control over the quality of the care provided. It usually is not clear whether "voluntary health insurance" is extended to include insurance company coverages or whether it is actually directed to plans comprised of or organized by the providers of care. More important, however, is the lack of preciseness of the words "control over the quality of care." As has been stated, it is the virtue of the approach inherent in the insurance company concept that there is no interference in the provision of care. Naturally, there are controls, the purpose of which is to define what is intended by the terms of the contract and to deter misuse of this intent. But the concept of insurance companies is that essentially any determination of the quality of care must rest with those professionally competent by training, tradition, and experience to arrive at such determinations—and with the patient.

Today, we read and hear a great deal on the subject of rising medical costs. On March 16, the cover of *U. S. News and World Report* featured

one of the principal articles of that issue under caption, "The High Cost of Being Sick." The *New York Times* recently headlined a reporting, "More Rises Seen in Hospital Cost." The Federal Reserve Bank of Philadelphia last December published a booklet, "Health Insurance Isn't Free." On June 2, 1958, the *New York Times* ran a comprehensive reporting under the caption, "Hospital Deficits Rise with Medical Gains." Twenty days later, the Shreveport, Louisiana, *Times* featured an article, "Health Insurance May Outprice Itself." These are simply examples.

Facts Behind the Headlines

Some of the basic facts behind these headlines are the following. In dollars, according to the U. S. Department of Health, Education and Welfare, the personal consumption expenditure for medical care in the United States rose from 7.4 billion dollars in 1948 to 14.4 billion dollars in 1957. According to the U. S. Department of Labor, the consumer price index (based on 1947-1949 prices) for medical care rose from 94.4 in 1947 to 138.0 in 1957, while the index for all items rose from 95.5 to 120.2. The American Hospital Association reports that the average cost per patient day in short-term general hospitals rose from $11.09 in 1947 to $26.02 in 1958. Health Information Foundation reports that medical care costs have increased six per cent a year between 1929 and 1957.

At first blush, and standing alone, these data appear frightening. They must, however, be qualified and evaluated. As the report by Health Information Foundation recognizes, on a per capita basis the increase in medical care costs has been from $24 to $89 between 1929 and 1957. However, the "real" increase (based on 1947-1949 prices) was from $32.86 to $64.78. In this same period, disposable personal income rose from $685 per capita to $1,812. Hence, as the report recognizes, while medical costs on an adjusted basis doubled, disposable personal income tripled.

There also is often a tendency to overlook the many entirely understandable reasons which lie behind the actual rise in medical care costs. In the field of hospital care, wages for hospital workers have, of necessity, been adjusted to a more adequate level and working hours have been brought more in line with the work day of other workers. All the costs of hospital operation, including food and equipment, have naturally felt the impact of the rise in living costs generally. The modern hospital requires much more expensive equipment than was formerly so. And there is today a greatly increased use of private and semi-private accommodations. With respect to physicians and dentists, they, too, have felt the impact of rising living costs and of the cost of equipment. Modern practice requires much more physical equipment and often more specialized para-medical personnel. The increasing specialization by physicians also has its understandable effect on costs. Drugs, too, have increased in diversification and the "miracle" drugs of today, and the research which lies behind them, are expensive to produce.

In addition to these basics, there has been more public demand for medical care and treatment than was formerly the case. This may be accounted for in many ways. Increased and warranted public confidence unquestionably plays a role. So does the constantly rising standard of living. So, also, do the changes in our ways of living so that care in the home is at times impossible and at other times undesirable. Increased health consciousness must be a further and important contributing factor. Important factors, too, are the increase in car population, our high maternity rate in recent years, the very high incidence of births taking place in hospitals under expert supervision today, the increasing number and proportion of aged people in our population, and the increasing incidence of chronic illness.

A final factor in increased medical costs is the presence of voluntary health insurance. This can operate in several ways. In the first place, the net cost of the insurance is often recorded as part of "medical costs" in computing the personal expenditures for medical care. Secondly, the presence of insurance can encourage the bringing about of needed medical care. Thirdly, insurance can have an inflationary influence on medical costs. One obvious way in which this has happened is in the reduction in the amount of hospital ward care and the increase in private and semi-private care.

There is some speculation, however, as to whether, barring general cost of living increases, the rise in medical costs will not tend to level off. Some argument can be made for this hypothesis in that many of the factors which have contributed to the rise in the past decade have now produced their major impact and should tend to follow the general cost of living index in the future.

However, a consequence of the increases in med-

ical care costs of necessary importance requires that insurance companies and other insurers seek higher premiums from their policyholders. This, in turn, causes questions to be raised by employers who pay so much of the cost of health insurance benefits, by labor unions through whose efforts so many of these plans are negotiated, and by others. Suggestions are made that steps be taken to control plan operations in one way or another to prevent the costs from rising or otherwise to eliminate the payment of unnecessary or excessive claims. The inference is sometimes drawn that if such measures to control costs are properly taken, costs can be established. The situation is by no means so simple. Among other things, the complex of factors entering into the rise in the costs of medical costs are not too ready measurable.

Obviously, there are areas where measures to control costs must be considered. Among these is the inefficient use of facilities. This includes poor scheduling of hospital admissions so that beds remain idle unnecessarily long. It includes the duplication of equipment that may be readily available elsewhere on a sharing or co-operative basis. Such situations call for constructive planning for efficient operation of the health professions. Progress can be made by careful examination of hospital admission practices in order to discern the degree of very short stay cases which may not have been medically necessary and to discern the degree to which hospital stays might be longer than necessary. Much more information in this area of consideration is needed. The study under way in Massachusetts by Health Information Foundation, and other similarly intended studies, should prove extremely helpful in evaluating this facet of medical care costs.

Some developments which should prove helpful are the many explorations in the use of ambulatory hospital care, nursing pools in hospitals, the joint purchase of drugs and supplies by hospitals, greater use of hospital out-patient facilities, a wiser use of nursing homes, and of the various forms of home care including visiting nurses, practical nurses, homemakers, and the all-inclusive organized home care programs. With greater availability of such facilities, and their general acceptance by physicians and the public, the costs of medical care might alter appreciably. From an insurance standpoint this would probably not result in reduced costs, but rather, it could mean a more efficient use of the premium dollar, particularly for the longer and more costly disabilities. There is wisdom in the words of Dr. James Dixon, when he says, "It is doubtful if any program for the assurance of hospital services for older people can be ultimately successful without taking into consideration the fact that care in nursing homes and similar type institutions must at the same time be equally available to the older person." When the several methods employed by insurance companies today in rapidly extending coverage to older people are considered, the importance of what Dr. Dixon has said becomes apparent.

The Question of "Abuse"

Another area for exploration includes the excessive provision of services because insurance is available to pay for them, or the practice of charging more for a given service simply because insurance is present. In many instances, these may be explained by the lack of understanding of the nature of health insurance on the part of some members of the medical profession, or their failure to realize their obligation to co-operate in making it work effectively in the interests of the public as well as themselves. Insurance company claim departments are on the lookout for these situations and deal with them depending on the individual circumstances.

The medical professions are increasingly aware of these problems and are devoting more and more time to them. Doctors' review committees are available in practically all areas to help adjudicate particular situations that are referred to them. In a number of instances, local medical societies are leading the way to a complete elimination of grounds for criticism of doctors' fees by adopting a dollar and cents conversion factor applicable to relative value schedules. The American Medical Association has recently urged all physicians to accept a level of compensation for medical services rendered the aged with low family incomes which will permit the development of insurance and prepayment plans at a reduced premium rate.

The insurance companies have long since been aware that the success or failure of voluntary health insurance will, in the end, depend so much upon the sympathetic consideration of the medical professions. In 1946, they formed the Health Insurance Council to seek the co-operation of the providers of care. A great deal has been accomplished and recently state and local committees

have been established to reach hospitals and doctors at the grass roots.

Insurance companies are also aware that it is their responsibility to design their coverages in such manner that unnecessary use of more expensive medical care than is necessary will be avoided and that the most efficient use might result from a given insurance premium dollar. The effort must constantly be to make plan operations as effective as possible. Dr. Frank C. Vogt, writing last month in the journal, *Group Practice,* has summed up the subject thus:

> "The major medical plans (of the insurance companies) which have appeared in recent years go far toward a workable solution to this many-faceted problem. By covering major illness only, and avoiding any attempt to insure against the minor, day to day medical expenses which can be borne much more economically by the patient than by insurance, a return has been made to employing insurance in its most efficient area. . . . No restriction is placed on where the service is rendered; it may be in the doctor's office or in a hospital."

An Ever-Changing Challenge

One of the most intriguing and challenging of the problems which face American society today is that of the provision and the financing of hospital and medical care. The development of this problem has resulted from many simultaneous and inter-acting stimuli; the tremendous advancement in the provision of medical care; the growth and increased availability of medical care facilities; the increased public demand for medical care as a result of a great many factors; an increasingly high rate of income taxation; a high degree of mortgaged indebtedness; vast socio-economic changes in our society; and the development and rapid growth of voluntary health insurance. Cognizance of this problem is largely the result of the active interest of a great many segments of our society, including the providers of care, organized labor, employers, our universities, foundations, government, and insurers. A multitude of studies and opinions on various facets of the subject are now existent. The result of these, however, while serving importantly to propel developments and progress, and to stimulate further thinking, often has been a confusion of opinions and counter-opinions, of charges and counter-charges, of diverse conclusions and evaluations drawn inevitably and of necessity from partial and incomplete information. Differing points of view are strongly, sometimes stubbornly adhered to. Emotions often run high. Partisanship and loyalties to viewpoints or approaches are staunch and vigorous. In fact, the only thing which at times appears to be absent from the panorama is objective discussion.

To say this is not to assume a cynical view. Actually, the subject is one which is rife with vitality and excitement. A great deal has been learned about it in the last decade. Unforeseen progress has been made and more will be made. The fact that discourses on medical economics inevitably take on distinctly dogmatic characteristics should not, perhaps, be surprising when one considers, as Igor Stravinsky has pointed out in his Harvard University lectures a decade ago, that every formal process proceeds from a principle and the study of this principle requires what is called dogma. The need we feel to bring order out of chaos, which need becomes so apparent to anyone approaching the field of medical economics, this need to extricate a straight line of operation from the tangle of possibilities, coupled with the indecision of vague thoughts, presupposes the necessity of some form of dogmatism.

Meanwhile, in any consideration of the subject it is important above all else to bear in mind that both medical care and the methods by which it is financed have been and will be engaged in a rapid and complex evolutionary process to such an extent that data, methods, and conclusions rapidly become outmoded; that information is always, of necessity, complete, lagging behind the progress which goes surging ahead; and that evaluations are not only inconclusive but extremely temporal. The fact is that, while we are gradually finding our way, the field of endeavor often called medical economics is still infinitely much more an art than a matter of scientific disciplines. This, then, argues that emotional reactions must be tempered, that patience must be employed despite a marked straining toward impatience, that objectively purposed knowledge must be diligently sought, and that, above all, the arbitrary freezing of a pattern, by whatever means, which would cut short much of the progress that is clearly before us should be avoided like the plague. The admonition of Boris Pasternak, in his controversial "Doctor Zhivago," that what has for centuries raised man above the beast is not the cudgel but an inward music, the irresistible power of unarmed truth, might well be heeded.

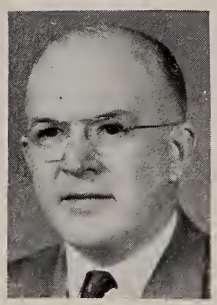
Michigan Medical Service

Payments for Services to Subscribers By Residence of Doctors Rendering Service from March 1, 1940 through December 31, 1958

1.	Wayne	$132,549,070.48	41.58%
2.	Genesee	20,614,311.62	6.47
3.	Oakland	18,069,453.74	5.68
4.	Kent	12,471,828.82	3.91
5.	Washtenaw	11,688,028.29	3.67
6.	Ingham	10,661,825.16	3.34
7.	Saginaw	9,693,064.26	3.04
8.	Macomb	5,043,383.87	1.58
9.	Bay	4,765,968.80	1.50
10.	Kalamazoo	3,756,094.47	1.18
11.	St. Clair	3,604,027.87	1.13
12.	Calhoun	3,046,668.66	.96
13.	Muskegon	2,243,307.87	.70
14.	Berrien	2,068,504.28	.65
15.	Shiawassee	1,994,717.00	.63
16.	Grand Traverse	1,964,846.77	.62
17.	Jackson	1,863,229.03	.58
18.	Chippewa	1,787,741.38	.56
19.	Emmett	1,537,148.32	.48
20.	Ottawa	1,427,609.77	.45
21.	Alpena	1,415,734.42	.44
22.	Marquette	1,268,783.99	.40
23.	Van Buren	1,184,205.00	.37
24.	Lenawee	1,173,512.65	.37
25.	Clinton	1,104,334.00	.35
26.	Monroe	1,083,758.85	.34
27.	Isabella	1,074,431.65	.34
28.	Ionia	959,325.03	.30
29.	Branch	854,685.85	.27
30.	Lapeer	830,098.20	.26
31.	Wexford	820,669.50	.26
32.	Tuscola	809,729.15	.25
33.	Hillsdale	784,611.27	.25
34.	Huron	771,200.85	.24
35.	Houghton	743,818.49	.23
36.	Montcalm	722,824.50	.23
37.	Eaton	712,628.67	.22
38.	Allegan	664,546.00	.21
39.	Gratiot	640,459.50	.20
40.	Delta	606,992.75	.19
41.	Cheboygan	557,547.20	.17
42.	Livingston	543,649.75	.17
43.	St. Joseph	534,055.65	.17
44.	Dickinson	485,751.85	.15
45.	Sanilac	463,491.25	.15
46.	Ogemaw	430,365.70	.14
47.	Oceana	411,937.75	.13
48.	Mason	375,306.40	.12
49.	Osceola	369,020.54	.12
50.	Presque Isle	367,108.75	.12
51.	Mecosta	365,406.50	.11
52.	Charlevoix	355,955.22	.11
53.	Gogebic	295,676.29	.09
54.	Menominee	294,600.85	.09
55.	Iosco	290,131.86	.09
56.	Barry	269,704.90	.08
57.	Ontonagon	260,249.25	.08
58.	Newago	245,697.35	.08
59.	Schoolcraft	243,043.50	.08
60.	Manistee	242,079.45	.08
61.	Crawford	238,925.75	.07
62.	Otsego	223,493.54	.07
63.	Baraga	221,478.50	.07
64.	Luce	203,526.55	.06
65.	Missaukee	200,869.00	.06
66.	Gladwin	175,612.99	.06
67.	Midland	173,998.90	.05
68.	Arenac	167,125.90	.05
69.	Leelanau	163,080.50	.05
70.	Benzie	144,302.18	.05
71.	Cass	133,663.50	.04
72.	Iron	99,184.25	.03
73.	Clare	72,064.25	.02
74.	Alcona	68,936.00	.02
75.	Antrim	55,950.00	.02
76.	Alger	48,925.25	.02
77.	Mackinaw	44,970.25	.01
78.	Roscommon	35,489.25	.01
79.	Kalkaska	20,992.50	.01
80.	Montmorency	16,133.00	.01
81.	Lake	8,866.50	.01
82.	Keweenaw	3,033.00	
83.	Oscoda	1,894.00	
	Total	$279,000,476.35	87.53%
	Total Michigan M.D.'s	$279,000,476.35	87.53%
	Out-of-State Doctors and Unclassified	7,348,627.27	2.31
	Paid to Osteopaths	32,400,027.63	10.16
		$318,749,131.25	100.00%

Michigan State Medical Society

The Ninety-fourth Annual Session



D. Bruce Wiley, M.D.
Utica
Council Chairman



G. B. Saltonstall, M.D.
Charlevoix
President



K. H. Johnson, M.D.
Lansing
Speaker



L. Fernald Foster, M. D.
Secretary

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Grand Rapids, Michigan, September 27-28-29-30-October 1-2, 1959. The provisions of the Constitution and Bylaws and the Official Program will govern the deliberations.

G. B. Saltonstall, M.D.
President

D. Bruce Wiley, M.D.
Council Chairman

K. H. Johnson, M.D.
Speaker

J. J. Lightbody, M.D.
Vice Speaker

Attest:
*L. Fernald Foster, M.D.
Secretary

*Deceased.



J. J. Lightbody, M.D.
Detroit
Vice Speaker

THREE-DAY SESSION OF HOUSE OF DELEGATES

September 27-28-29, 1959

First Meeting—Sunday, 8:00 p.m.

The 1959 House of Delegates of the Michigan State Medical Society will hold a three-day session beginning Sunday, September 27, at 8:00 p.m. The business of the House of Delegates will be transacted in the Ballroom of the Pantlind Hotel, Grand Rapids.

The House will meet also on Monday, September 28 at 9:00 a.m. and 8:00 p.m., and on Tuesday, September 29, at 9:00 a.m. and at 8:00 p.m.

The intervals between meetings of the House of Delegates have been spaced to permit the Reference Committees ample time to transact all business referred to them.

SEATING OF DELEGATES

"Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved." —MSMS Bylaws, Chapter 9, Section 6.

Michigan State Medical Society

The Ninety-fourth Annual Session

PANTLIND HOTEL—CIVIC AUDITORIUM, GRAND RAPIDS

SEPTEMBER 27-28-29-30; OCTOBER 1-2

INFORMATION

- **GRAND RAPIDS WILL BE HOST TO MSMS IN SEPTEMBER, 1959.**

- **MSMS HOUSE OF DELEGATES** convenes Sunday, September 27, at 8:00 p.m., Ballroom, Pantlind Hotel. It will also hold two meetings on Monday, September 28 and two on Tuesday, September 29.

- **THE PROGRAM OF THE ASSEMBLY** for the 94th Annual Session of the Michigan State Medical Society lists guest speakers from all parts of the United States and Canada. They are the usual stars in the medical world who always grace the podium at annual conventions of the Michign State Medical Society; they insure a valuable concentrated refresher course in all phases of medicine and surgery for the busy practitioners of Michigan, neighboring states and the Province of Ontario.

- **DATES OF SCIENTIFIC ASSEMBLY:** Tuesday noon through Friday noon, September 29-30, October 1-2, 1959.

- **REGISTRATION,** Tuesday 10:00 a.m. (September 29) through Friday noon (October 2), Civic Auditorium. Present your State Medical Society, American Medical, or Canadian Medical Association membership card to expedite registration.

- **NO REGISTRATION FEE FOR STATE MEDICAL SOCIETY AND CMA MEMBERS.**
  Doctors of Medicine, who are not members of their state medical society or the Canadian Medical Association, will be accorded the privileges of the MSMS Annual Session upon payment of a $25.00 registration fee.

- **DINNER-DANCE, WEDNESDAY, SEPTEMBER 30, 1959**

  The Officers Night Dinner Dance, to which all MSMS members and their ladies are cordially invited, will be held in the Pantlind Hotel, Grand Rapids, Wednesday evening. Reception at 7:00 p.m.; dinner, 8:00 p.m. Sponsored by the Michigan State Medical Society and its Woman's Auxiliary.

- **REGISTER AS SOON AS YOU ARRIVE. ADMISSION BY BADGE ONLY.**

- **MEMBERS OF MICHIGAN MEDICAL SERVICE** will meet in annual session, Tuesday, September 29, at 2:00 p.m. This meeting will follow the annual MMS luncheon which will be held in the Ballroom of the Pantlind Hotel.

- **ALL SUBJECTS** at the MSMS Annual Session are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

- **POSTGRADUATE CREDITS** given to every MSMS member who attends MSMS Annual Session.

- **SIX ASSEMBLIES**—16 Section Meetings—all on September 29-30-October 1-2.

- **SECTION MEETINGS** will follow the daily Assemblies, Tuesday, Wednesday, Thursday, Friday.

- **PAPERS WILL BEGIN AND END ON TIME.** The MSMS scientific meeting always features by-the-clock promptness and regularity.

- **TECHNICAL EXHIBITS** will contain much of interest and value. Two daily intermissions to view the exhibits have been arranged.

- **JAMES W. LOGIE, M.D., GRAND RAPIDS,** is Chairman of the Committee on Arrangements for the 1959 Annual Session.

- **CABARET-STYLE DANCE AND ENTERTAINMENT,** with the compliments of the Michigan State Medical Society, will be held in the Ballroom of the Pantlind Hotel on Thursday evening, October 1. All who register and their ladies are cordially invited to attend.

SCIENTIFIC ASSEMBLY

Tuesday-Wednesday-Thursday-Friday

September 29-30-October 1-2, 1959

SAVE AN ORDER FOR THE EXHIBITORS AT THE
MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

Michigan State Medical Society

Ninety-fourth Annual Session

HOUSE OF DELEGATES

PANTLIND HOTEL, GRAND RAPIDS, SEPTEMBER 27-28-29, 1959

ORDER OF BUSINESS*

SUNDAY, SEPTEMBER 27, 1959

Ballroom, Pantlind Hotel, Grand Rapids

6:00 p.m.—Registration

8:00 p.m.—First Meeting

1. **Call to Order by Speaker**
2. **Report of Committee on Credentials**
3. **Roll Call**
4. **Appointment of Reference Committees**
   - (a) On Officers' Reports
   - (b) On Reports of The Council
   - (c) On Reports of Standing Committees
   - (d) On Reports of Special Committees
   - (e) On Constitution and Bylaws
   - (f) On Resolutions
   - (g) On Special Memberships
   - (h) On Rules and Order of Business
   - (i) On Legislation and Public Relations
   - (j) On Hygiene and Public Health
   - (k) On Medical Service and Prepayment Insurance
   - (l) On Miscellaneous Business
   - (m) On Executive Session
   - (n) On National Defense and Disaster Planning
5. **Speaker's Remarks—K. H. Johnson, M.D., Lansing**
6. **President's Remarks—G. B. Saltonstall, M.D., Charlevoix**
7. **President-Elect's Remarks—M. A. Darling, M.D., Detroit**
8. **Annual and Supplemental Reports of The Council —D. Bruce Wiley, M.D., Chairman of The Council**
9. **Report of Delegates to American Medical Association—W. A. Hyland, M.D., Grand Rapids, Chairman**
10. **Brief of Annual Report of Woman's Auxiliary—Mrs. Robert E. Reagan, Benton Harbor**
11. **Brief of Annual Report of Michigan State Medical Assistants Society—Miss Donna Hislop, Muskegon**
12. **Report on Michigan Medical Service**

*See the Constitution, Articles IV, VII and XII, and the Bylaws, Chapter 9 on "House of Delegates."

MONDAY, SEPTEMBER 28, 1959

Ballroom, Pantlind Hotel, Grand Rapids

9:00 a.m.—Second meeting

13. **Supplemental Report of Committee on Credentials**
14. **Roll Call**
15. **Awards:**
   - (a) Selection of Michigan's Foremost Family Physician
   - (b) Fifty-year Awards
16. **Resolutions†**
17. **Reports of Committees of the House of Delegates**
   - (A) Permanent Advisory Committee on Fees
   - (B) Committee on Committees
   - (C) Study Committee on Term of Councilor
   - (D) Ad Hoc Study Committee on Regional Election of members of Michigan Medical Service
18. **Reports of**
   1. **MSMS Standing Committees**
      - (A) Committee on Postgraduate Medical Education
      - (B) Preventive Medicine Committee
        - (1) Committee on Rheumatic Fever Control
        - (2) Cancer Control Committee
        - (3) Maternal Health Committee (and Subcommittees)
        - (4) Venereal Disease Control Committee
        - (5) Tuberculosis Control Committee
        - (6) Occupational Medicine Committee
        - (7) Mental Health Committee
        - (8) Child Welfare Committee (and Subcommittees)
        - (9) Iodized Salt Committee
        - (10) Geriatrics Committee
        - (11) Committee on Diabetes
      - (C) Public Relations Committee (and Subcommittees)
      - (D) Ethics Committee
      - (E) Legislative Committee
   2. **MSMS Special Committees**
      - (A) Scientific Radio Committee
      - (B) Advisory Committee to Woman's Auxiliary
      - (C) Advisory Committee to Michigan State Medical Assistants Society
      - (D) Mediation Committee
      - (E) Study on Prevention of Highway Accidents Committee

      Reports of the Committees of The Council, including Committee on Scientific Work, are included in Annual Report of The Council

†All resolutions, special reports, and new business shall be presented in writing in triplicate (Bylaws, Chapter 9, Section 10-m).

MONDAY, SEPTEMBER 28, 1959

Ballroom, Pantlind Hotel, Grand Rapids

8:00 p.m.—Third Meeting

19. Supplementary Report of Committee on Credentials
20. Roll Call
21. Unfinished Business
22. New Business
23. Reports of Reference Committees
    (a) On Officers' Reports
    (b) On Reports of The Council
    (c) On Reports of Standing Committees
    (d) On Reports of Special Committees
    (e) On Constitution and Bylaws
    (f) On Resolutions
    (g) On Special Memberships
    (h) On Rules and Order of Business
    (i) On Legislation and Public Relations
    (j) On Hygiene and Public Health
    (k) On Medical Service and Prepayment Insurance
    (l) On Miscellaneous Business
    (m) On Executive Session
    (n) On National Defense and Disaster Planning

TUESDAY, SEPTEMBER 29, 1959

Ballroom, Pantlind Hotel, Grand Rapids

9:00 a.m.—Fourth meeting

24. Supplementary Report of Committee on Credentials
25. Roll Call
26. Unfinished Business
27. New Business
28. Supplementary Reports of Reference Committees

TUESDAY, SEPTEMBER 29, 1959

Ballroom, Pantlind Hotel, Grand Rapids

8:00 p.m.—Fifth meeting

29. Supplementary Report of Committee on Credentials
30. Roll Call
31. Unfinished Business
32. Supplemental Report of The Council
33. Supplementary Reports of Reference Committees
34. Elections
    (a) Councilors:
        13th District—T. P. Wickliffe, M.D., Calumet—Incumbent
        14th District—B. M. Harris, M.D., Ypsilanti—Incumbent
        18th District—Wm. Bromme, M.D., Detroit—Incumbent
    (b) Delegates to American Medical Association
        J. S. DeTar, M.D., Milan—Incumbent
        W. A. Hyland, M.D., Grand Rapids—Incumbent
        C. I. Owen, M.D., Detroit—Incumbent
    (c) Alternate Delegates to American Medical Association
        W. W. Babcock, M.D., Detroit—Incumbent
        O. J. Johnson, M.D., Bay City—Incumbent
        E. F. Sladek, M.D., Traverse City—Incumbent
    (d) President-Elect
    (e) Speaker of the House of Delegates
    (f) Vice Speaker of the House of Delegates
35. Adjournment

ANNUAL SESSION APPOINTMENTS

Chairman of Arrangements

James W. Logie, M.D., Grand Rapids

House of Delegates Press Relations Committee

K. H. Johnson, M.D., Lansing, Chairman
L. Fernald Foster, M.D., Detroit
J. J. Lightbody, M.D., Detroit
C. Allen Payne, M.D., Grand Rapids
D. W. Thorup, M.D., Benton Harbor

Scientific Press Relations Committee

H. G. Benjamin, M.D., Grand Rapids, Chairman
F. S. Alfenito, Jr., M.D., Grand Rapids
N. L. Avery, Jr., M.D., Grand Rapids
A. B. Gwinn, M.D., Hastings
C. L. Weston, M.D., Owosso

HOTEL RESERVATIONS
MICHIGAN STATE MEDICAL SOCIETY

94th Annual Session

Grand Rapids, September 27-October 2, 1959

The reservation blank below is for your convenience in making your hotel reservation in Grand Rapids. Please send your application to Jack Ament, Secretary, Committee on Hotels for MSMS Convention, Pantlind Hotel, Grand Rapids, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

— — — — — — — — — — — — — — — —

Jack Ament, Secretary
Committee on Hotels,
Michigan State Medical Society
c/o Pantlind Hotel
Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

———— Single Room(s) ————persons

———— Double Room(s) for ————persons

———— Twin-Bedded Room(s) for ———persons

Arriving September ———hour———A.M.———P.M.

Leaving ————hour———A.M.———P.M.

Hotel of First Choice: ————————————

Second Choice: ————————————

Names and addresses of all applicants including persons making reservations:

Name	Address	City	State

Date ———— Signature ————————

Address ———————— City ————

Delegates and Alternates

(Names of Alternates appear in italics)

OFFICERS
K. H. Johnson, M.D., 1116 Mich. Nat'l Tower, Lansing
Speaker
J. J. Lightbody, M.D., 501 David Whitney Bldg., Detroit
Vice Speaker
L. Fernald Foster, M.D., 441 E. Jefferson, Detroit
Secretary
G. W. Slagle, M.D., 203 N.E. Capitol, Battle Creek
Immediate Past President
A. Verne Wenger, M.D., 132 Grand Ave. N.E., Grand Rapids
Honorary Member

ALLEGAN
Lewis F. Brown, M.D., 133 E. Allegan, Otsego
Elwin B. Johnson, M.D., 144 Brady St., Allegan

ALPENA-ALCONA-PRESQUE ISLE
Elbert S. Parmenter, M.D., Box 192, Alpena
John W. Bunting, M.D., 110 N. First Ave., Alpena

BARRY
Alexander B. Gwinn, M.D., 102 E. State St., Hastings
Robert J. Huebner, M.D., 234 E. State St., Hastings

BAY-ARENAC-IOSCO
David A. Bowman, M.D., 101 W. John St., Bay City
Stanley A. Cosens, M.D., 101 W. John St., Bay City
William G. Gamble, Jr., M.D., 2010 Fifth St., Bay City
Edward R. Rodda, M.D., 101 W. John St., Bay City

BERRIEN
Noel J. Hershey, M.D., P.O. Box 222, Niles
Donald W. Thorup, M.D., 756 Pipestone, Benton Harbor
Francis A. Kennedy, M.D., 239 Pipestone, Benton Harbor
Frederick H. Lindenfeld, M.D., 8 N. St. Joseph St., Niles

BRANCH
Robert J. Fraser, M.D., 22 W. Pearl St., Coldwater
Robert M. Leitch, M.D., 304 N. Broadway, Union City

CALHOUN
Harvey C. Hansen, M.D., 65 W. Michigan, Battle Creek
George T. Kelleher, M.D., 235 North Ave., Battle Creek
R. E. Fisher, M.D., 1501 W. Michigan Ave., Battle Creek
K. S. Wemmer, M.D., 1472 W. Michigan Ave., Battle Creek

CASS
S. L. Loupee, M.D., 110 W. Division St., Dowagiac
Uriah M. Adams, M.D., Marcellus

CHIPPEWA-MACKINAC
W. F. Mertaugh, M.D., 104 W. Spruce, Sault Ste. Marie
Earl S. Rhind, M.D., Sault Polyclinic, Sault Ste. Marie

CLINTON
Franklin W. Smith, M.D., 105 S. Ottawa St., St. Johns
James M. Grost, M.D., 110 Oakland St., St. Johns

DELTA-SCHOOLCRAFT
James R. Dehlin, M.D., 8 S. Eleventh St., Gladstone
James H. Fyvie, M.D., 202 S. Cedar St., Manistique

DICKINSON-IRON
Donald R. Smith, M.D., Box 471, Iron Mountain
Earl R. Addison, M.D., Crystal Falls

EATON
Byron P. Brown, M.D., 339 S. Cochran, Charlotte
R. E. Landick, Jr., M.D., 111 S. Cochran St., Charlotte

GENESEE
J. E. Wentworth, M.D., 1651 Chevrolet Ave. N., Flint 4
Frank D. Johnson, M.D., 653 S. Saginaw St., Flint 3
Clifford W. Colwell, M.D., 328 S. Saginaw, Flint 2
Lawrence G. Bateman, M.D., 1928 Lewis St., Flint 6
Franklin W. Baske, M.D., 923 Maxine St., Flint 3
William F. Buchanan, M.D., 238 W. Caroline, Fenton
Ernest P. Griffin, Jr., M.D., 503 S. Saginaw, Flint 2
Jesse L. Leach, M.D., 3007 Industrial Ave., Flint 5
David McTaggart, M.D., 312 Patterson Bldg., Flint 2
Harvey V. Sparks, M.D., 460 S. Saginaw, Flint 2

GOGEBIC
Wayne A. Gingrich, M.D., 109 E. Aurora St., Ironwood
Florian J. Santini, M.D., 109 E. Aurora St., Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE
Frank H. Power, M.D., 116 Cass St., Traverse City
Charles E. Lemen, M.D., 110 S. Madison, Traverse City

GRATIOT-ISABELLA-CLARE
John M. Wood, M.D., 815 E. Maple St., Mt. Pleasant
Loren G. Burt, M.D., 510 Prospect St., Alma

HILLSDALE
Arthur W. Strom, M.D., 32 S. Broad St., Hillsdale
Luther W. Day, M.D., Grosvener Bank Bldg., Jonesville

HOUGHTON-BARAGA-KEWEENAW
Paul S. Sloan, M.D., 609 Sheldon Ave., Houghton
Leonard C. Aldrich, M.D., 301 Quincy St., Hancock

HURON
Charles W. Oakes, Jr., M.D., Harbor Beach
Ralph C. Dixon, M.D., Box 77, Pigeon

INGHAM
L. A. Drolett, M.D., 3526 W. Saginaw St., Lansing 17
H. W. Harris, M.D., 609 N. Washington, Lansing 15
K. H. Johnson, M.D., 1116 Mich. Nat'l Tower, Lansing
Franklin L. Troost, M.D., 4341 W. Delhi Rd., Holt
John M. Wellman, M.D., 301 Seymour Ave., Lansing
H. C. Comstock, M.D., 1031 E. Michigan, Lansing
Forest M. Dunn, M.D., 301 Seymour Ave., Lansing
S. H. Rutledge, Jr., M.D., 110 W. Hillsdale, Lansing
Robert M. Stow, M.D., 124 W. Allegan, Lansing
Mahlon S. Sharp, M.D., 521 N. Capitol, Lansing

IONIA-MONTCALM
Robert E. Rice, M.D., Greenville
Richard E. Campbell, M.D., Ionia

JACKSON
Horace Wray Porter, M.D., 505 Wildwood, Jackson
John W. Rice, M.D., 421 McNeal, Jackson
Jack P. Bentley, M.D., 404 McNeal St., Jackson
Charles R. Lenz, M.D., 405 First St., Jackson

KALAMAZOO
W. Kaye Locklin, M.D., 136 E. Michigan, Kalamazoo
Don Marshall, M.D., 252 E. Lovell St., Kalamazoo
Frederick C. Ryan, M.D., 507 S. Burdick St., Kalamazoo
William A. Scott, M.D., 252 E. Lovell St., Kalamazoo
Robert B. Burrell, M.D., 1711 Merrill St., Kalamazoo
Robert E. DeLong, M.D., 2215 Crane Ave., Kalamazoo
Donald G. May, M.D., 516 Whites Rd., Kalamazoo
M. D. Verhage, M.D., 228 W. Cedar St., Kalamazoo

KENT
W. C. Beets, M.D., 124 Fulton St., E. Grand Rapids 2
F. C. Brace, M.D., 1498 Lake Dr. S.E., Grand Rapids 6
J. R. Brink, M.D., 50 College Ave. S.E., Grand Rapids
J. A. Ferguson, M.D., 223 Hall St. S.E., Grand Rapids
Wm. J. Fuller, M.D., 2633 Frederick Dr. S.E., Grand Rapids 6
J. D. Miller, M.D., 50 College Ave. S.E., Grand Rapids 3
G. R. Schneider,† M.D., 1810 Wealthy St. S.E., Grand Rapids
A. R. Vanden Berg, M.D., 26 Sheldon Ave., S.E., Grand Rapids
Noyes L. Avery, Jr., M.D., 833 Lake Dr. S.E., Grand Rapids
F. S. Gillett, M.D., 50 College Ave. S.E., Grand Rapids
Dale L. Kessler, M.D., 1610 Robinson Rd. S.E., Grand Rapids
R. A. Rasmussen, M.D., Blodgett Medical Bldg., Grand Rapids
Wm. W. Jack, M.D., 1810 Wealthy St. S.E., Grand Rapids
D. P. Moore, M.D., 110 Fulton St. S.E., Grand Rapids
V. A. Notier, M.D., 50 College Ave. S.E., Grand Rapids
R. H. Puite, M.D., 26 Sheldon Ave. S.E., Grand Rapids

†Dr. Schneider has transferred from the state. An Alternate will be properly certified to take his place.

LAPEER
Harry B. Zemmer, M.D., 311 Clay St., Lapeer
T. K. Buchanan, M.D., 290 S. Almont Ave., Imlay City

LENAWEE
George C. Wilson, M.D., Box 224, Clinton
Francis W. Balice, M.D., 128 E. Butler, Adrian

LIVINGSTON
Harold C. Hill, M.D., 116 N. Michigan Ave., Howell
Edwin S. Woodworth, M.D., 1200 Byron Rd., Howell

LUCE
Lawrence E. Grennan, M.D., 210 W. John, Newberry

MACOMB
Sidney Scher, M.D., 132 Cass Ave., Mt. Clemens
Edward G. Siegfried, M.D., 91 Cass Ave., Mt. Clemens
E. J. Dudzinski, M.D., 424 Washington St., New Baltimore
J. H. Jewell, M.D., Roseville Theatre Bldg., Roseville

MANISTEE
R. R. Garneau, M.D., 606 N. Gaylord Ave., Ludington
Ernest B. Miller, M.D., 427 River St., Manistee

MARQUETTE-ALGER
Archie S. Narotzky, M.D., Miracle Circle, Ishpeming
P. J. Hettle, M.D., 211 Savings Bank Bldg., Marquette

MASON
Herbert G. Bacon, M.D., 101 N. Main St., Scottville
Ephraim B. Boldyreff, M.D., Mich. Vets. Fac., Custer

MECOSTA-OSCEOLA-LAKE
Paul Ivkovich, M.D., Reed City
Edward H. Kowaleski, M.D., Remus

MENOMINEE
John R. Heidenreich, M.D., Daggett
Herman R. Brukardt, M.D., 534 First St., Menominee

MIDLAND
Martin J. Ittner, M.D., 217 N. Saginaw Rd., Midland
Harold L. Gordon, M.D., Dow Chemical Co., Midland

MONROE
Samuel N. Kelso, Jr., M.D., 753 N. Monroe St., Monroe
Reginald A. Frary, M.D., 423 E. Elm Ave., Monroe

MUSKEGON
DeVere R. Boyd, M.D., 1735 Peck St., Muskegon
Henry C. Tellman, M.D., 289 W. Western, Muskegon
John M. Busard, M.D., 888 First St., Muskegon
William H. Tyler, M.D., 1435 Peck St., Muskegon

NEWAYGO
J. Paul Klein, M.D., P. O. Box 111, Fremont
Robert E. Paxton, M.D., 40 W. Sheridan, Fremont

NORTH CENTRAL
Louis F. Hayes, M.D., Gaylord
Charles L. Oppy, M.D., Roscommon

NORTHERN MICHIGAN
Gerald A. Drake, M.D., Petoskey
Leonard W. Reus, M.D., 226 Park Ave., Petoskey

OAKLAND
Chauncey G. Burke, M.D., 35 W. Huron St., Pontiac
Harold A. Furlong, M.D., 35 W. Huron St., Pontiac
Merle A. Haanes, M.D., 704 State Bank Bldg., Pontiac
Felix J. Kemp, M.D., 880 Woodward Ave., Pontiac
Michael C. Kozonis, M.D., 28 N. Saginaw, Pontiac
P. T. Lahti, M.D., 264 Washington Sq. Bldg., Royal Oak
R. J. Mason, M.D., 618 N. Woodward Ave., Birmingham
W. J. Zimmerman, M.D., 32340 Sylvan Lane, Birmingham
R. M. Bookmyer, M.D., 1890 Southfield, Birmingham
Rockwood W. Bullard, Jr., M.D., Clarkston, Mich.
T. D. Grekin, M.D., 603 W. Eleven Mile Rd., Royal Oak
Norman F. Gehringer, M.D., 880 Woodward, Pontiac
E. J. Mueller, M.D., 1775 E. Fourteen St., Birmingham
George N. Petroff, M.D., 219 Cherokee Dr., Pontiac
V. P. Russell, M.D., 324 Washington Sq. Bldg., Royal Oak
F. M. Sheridan, M.D., 1307 S. Washington St., Royal Oak

OCEANA
Willis A. Hasty, M.D., 405 State St., Shelby

ONTONAGON
William F. Strong, M.D., River St., Ontonagon
Harold B. Hogue, M.D., Ewen State Bank Bldg., Ewen

OTTAWA
Otto Van der Velde, M.D., 33 W. 8th St., Holland
John H. Kitchel, M.D., 414 Franklin, Grand Haven

SAGINAW
Vernon V. Bass, M.D., 826 N. Michigan, Saginaw
Joseph P. Markey, M.D., 808 N. Michigan, Saginaw
Aaron C. Stander, M.D., 1411 Court St., Saginaw
Robert G. Abp, M.D., 520 W. Genesee Ave., Saginaw
Robert V. Bucklin, M.D., 1447 N. Harrison, Saginaw
Edwin C. Galsterer, M.D., 128 S. Jefferson, Saginaw

ST. CLAIR
John J. Coury, Jr., M.D., 1209 Tenth St., Port Huron
Clarence D. Selby, M.D., 1916 Military St., Port Huron

ST. JOSEPH
Samuel A. Fiegel, M.D., 111 S. Monroe, Sturgis
Roscoe J. Fortner, M.D., 137 Portage St., Three Rivers

SANILAC
Keate T. McGunegle, M.D., Sandusky
Michael H. Jayson, M.D., 5294 E. Marlette St., Marlette

SHIAWASSEE
Claude L. Weston, M.D., 1226 N. Washington, Owosso
Elwood M. Chipman, M.D., 502 W. Williams St., Owosso

TUSCOLA

Lloyd L. Savage, M.D., 147 W. Lincoln, Carol
Edward N. Elmendorf, II, M.D., Vassar

VAN BUREN

Thomas J. Dillon, M.D., R.F.D. 3, Paw Paw
Adelbert L. Stagg, M.D., 9 N. Maple St., Hartford

WASHTENAW

Otto K. Engelke, M.D., County Bldg., Ann Arbor
Harold F. Falls, M.D., University Hospital, Ann Arbor
Henry A. Scovill, M.D., 1313 W. Cross St., Ypsilanti
R. Wallace Teed, M.D., 2300 Melrose, Ann Arbor
Victor M. Zerbi, M.D., 315 N. Adams, Ypsilanti
Clarence E. Crook, M.D., 2112 Wallingford, Ann Arbor
Scott T. Harris, M.D., 27 S. Prospect, Ypsilanti
Theodore G. Kabza, M.D., 2222 Parkwood, Ann Arbor
John W. Smillie, M.D., Overridge Dr., Ann Arbor
Paul J. Wicht, M.D., 1385 W. Michigan, Ypsilanti

WAYNE

Sidney Adler, M.D., 3011 W. Grand Blvd., Detroit 2
Raphael Altman, M.D., 5057 Woodward, Detroit 2
Elden C. Baumgarten, M.D., 8045 E. Jefferson, Detroit 4
James B. Blodgett, M.D., 76 W. Adams, Detroit 26
G. T. Bradley, M.D., 1553 Woodward Ave., Detroit 26
John R. Brown, M.D., 5057 Woodward Ave., Detroit 2
Duncan A. Cameron, M.D., 2021 Monroe, Dearborn
Meyer O. Cantor, M.D., 4850 Charing Cross Rd., Birmingham
Wm. S. Carpenter, M.D., 1553 Woodward Ave., Detroit 26
Sidney E. Chapin, M.D., 125 N. Military, Dearborn 7
W. C. C. Cole, Sr., M.D., 3011 W. Grand Blvd., Detroit 2
Ralph R. Cooper, M.D., 15610 Linnhurst, Detroit 5
William J. Coulter, M.D., 5258 Chatsworth, Detroit 24
Melvin S. Dennis, M.D., 751 S. Military, Dearborn
Herbert W. Devine, M.D., 22101 Moross Rd., Detroit 36
G. S. Fisher, M.D., 1101 Whittier Ave., Grosse Point 30
James D. Fryfogle, M.D., Medical Concourse, Northland Center, Detroit 35
Hugh M. Fuller, M.D., 1553 Woodward Ave., Detroit 26
Perry C. Gittins, M.D., 20210 Renfrew Ave., Detroit 21
Hugh W. Henderson, M.D., 17830 E. Warren, Detroit 24
Joseph Hickey, M.D., 6004 W. Fort St., Detroit 9
Homer A. Howes, M.D., 9322 Artesian, Detroit 28
Philip J. Huber, M.D., 1724 Bassett, Royal Oak
Louis Jaffe, M.D., 18662 Muirland, Detroit 21
R. J. Kokowicz, M.D., 19440 Van Dyke, Detroit 34
Earl G. Kreig, M.D., 85 Kercheval Ave., Detroit
A. M. Large, M.D., 1553 Woodward Ave., Detroit 26
Floyd B. Levagood, M.D., 14056 Artesian, Detroit 23
Arthur B. Levant, M.D., 15715 E. Warren, Detroit 24
J. J. Lightbody, M.D., 1553 Woodward Ave., Detroit 26
E. E. Martmer, M.D., 693 Washington Rd., Grosse Pte. 30
John F. McGuire, M.D., 10 Cherry Hill Ct., Dearborn 7
W. B. McIntyre, M.D., 1233 Audubon, Grosse Pte. Park
Don W. McLean, M.D., 3011 W. Grand Blvd., Detroit 2
Robert L. Novy, M.D., 858 Fisher Bldg., Detroit 2
C. I. Owen, M.D., 1544 Vinewood Ave., Detroit 16
Howard C. Rees, M.D., 15700 Mack Ave., Detroit 24
F. P. Rhoades, M.D., 5057 Woodward Ave., Detroit 2
Aaron Z. Rogers, M.D., 20451 Mack Ave., Grosse Pte. Woods, Detroit 36
Albert D. Ruedemann, Sr., M.D., 1553 Woodward Ave., Detroit 26
John G. Slevin, M.D., 10 Witherell St., Detroit 26
David I. Sugar, M.D., 17 Brady, Detroit 1
Donald N. Sweeney, Jr., M.D., 8445 E. Jefferson, Detroit
E. J. Tallant, M.D., 19324 Westmoreland, Detroit 19
Edward M. Vardon, M.D., 12897 Woodward Ave., Highland Park 3
Milton R. Weed, M.D., 1997 E. Grand Blvd., Detroit 11
Jacob F. Wenzel, M.D., 18555 E. Warren, Detroit 36
Robert K. Whiteley, M.D., 216 Lakeland Ave., Detroit 30
J. A. Witter, M.D., 344 Glendale Ave., Highland Park 3
R. E. Wunsch, M.D., 497 Rivard Blvd., Grosse Pte. 30
William J. Yott, M.D., 854 Lakeshore Rd., Grosse Pte. Shores 36
Louis J. Bailey, M.D., Medical Concourse, Northland Center, Detroit
Alexander Blain, III, M.D., 2201 Jefferson Ave., E. Detroit 7
Morris S. Brent, M.D., 1330 Strathcona Dr., Detroit 3
William L. Brosius, M.D., 16150 Sorrento, Detroit 35
Clarence L. Candler, M.D., 20040 Mack Ave., Detroit 36
G. L. Coan, M.D., 2336 Van Alstyne Blvd., Wyandotte
R. T. Costello, M.D., 3001 W. Grand Blvd., Detroit 2
James C. Danforth, Jr., M.D., 20175 Mack Ave., G.P.W., Detroit 36
Harry F. Dibble, M.D., 1553 Woodward Ave., Detroit 26
Edwin F. Dittmer, M.D., 18412 Mack Ave., G.P.F., Detroit 36
E. F. Eldredge, M.D., 18540 Mack Ave., Grosse Pte. 36
Laurence S. Fallis, M.D., 2799 W. Grand Blvd., Detroit 2
Aaron A. Farbman, M.D., 14515 Kercheval, Detroit 15
Harold B. Fenech, M.D., 10 Peterboro St., Detroit 1
E. H. Fenton, M.D., 15125 Grand River Ave., Detroit 27
Russell F. Fenton, M.D., 15125 Grand River, Detroit 27
W. R. Flora, M.D., 8100 E. Jefferson Ave., Detroit 14
C. J. France, M.D., 838 Berkshire Rd., Grosse Pte. 30
S. E. Gould, M.D., Wayne Co. General Hospital, Eloise
J. G. Graham, Jr., M.D., 491 Lincoln Rd., Grosse Pte. 30
Edwin J. Hammer, M.D., 16616 Mack Ave., Detroit 24
Clyde K. Hasley, M.D., 1553 Woodward Ave., Detroit 26
Leslie T. Henderson, M.D., 14814 E. Warren, Detroit 15
C. P. Hodgkinson, M.D., 17546 Meadwood Ave., Birmingham
Lyle W. Korum, M.D., 18585 E. Warren, Detroit 36
Edward H. Lauppe, M.D., 1551 Woodward, Detroit 26
Luther R. Leader, M.D., 1553 Woodward, Detroit 26
Max L. Lichter, M.D., 2900 Oakwood Blvd., Melvindale
Earl C. Long, M.D., 13995 Rutland Ave., Detroit 27
Rosser L. Mainwaring, M.D., 1910 Russell, Dearborn
Clarke M. McColl, M.D., 2799 W. Grand Blvd., Detroit
Elmer B. Miller, M.D., 20 Oxford Rd., Pleasant Ridge
Joseph G. Molner, M.D., 334 Bates St., Detroit 26
J. R. Montante, M.D., 18715 Bretton Dr., Detroit 23
Alice E. Palmer, M.D., 3919 John R. St., Detroit 1
Ralph H. Pino, M.D., 1553 Woodward Ave., Detroit 26
A. Hazen Price, M.D., 18605 Birchcrest Dr., Detroit 21
Alvin E. Price, M.D., 1553 Woodward Ave., Detroit 26
Jack Rom, M.D., 4775 W. Outer Dr., Detroit 35
Chas. W. Sellers, M.D., 2314 W. Grand Blvd., Detroit 8
Laurence F. Segar, M.D., 10 Witherell St., Detroit 26
Geo. Sewell, M.D., 411 W. Ten Mile Rd., Pleasant Ridge
Guy W. Sewell, M.D., 17751 E. Warren Ave., Detroit
William La Rue Sherman, M.D., 10 Peterboro, Detroit
J. W. Sigler, M.D., 1356 Greenlawn Blvd., Birmingham
H. L. Smith, M.D., 16401 Grand River Ave., Detroit 27
Carl J. Sprunk, M.D., 2900 Oakwood Blvd., Melvindale
R. V. Walker, M.D., 1553 Woodward Ave., Detroit 26
S. S. Wittenberg, M.D., 2306 Oakman Blvd., Detroit 38
D. A. Young, M.D., 14807 W. McNichols Rd., Detroit 35
Donald C. Young, M.D., 1151 Taylor, Detroit 2

WEXFORD-MISSAUKEE

Gregory P. Moore, M.D., 734 E. Division St., Cadillac
William D. Peterson, M.D., Mesick

In smooth muscle spasm...



• controls *stress*

• relieves *distress*

Pro-Banthīne® with Dartal®

Pro-Banthīne—
unexcelled for relief of cholinergic spasm—
has been combined with
Dartal—
new, well-tolerated agent for stabilizing emotions—
to provide you with
Pro-Banthīne with Dartal—
for more specific control of functional gastrointestinal disorders, especially those aggravated by emotional tension.

Specific Clinical Applications: Functional gastrointestinal disturbances, pylorospasm, peptic ulcer, gastritis, spastic colon (irritable bowel), biliary dyskinesia.

Dosage: One tablet three times a day.

Availability: Aqua-colored tablets containing 15 mg. of Pro-Banthīne (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride). G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

SEARLE

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

VENEREAL DISEASE IN MICHIGAN

In 1958, 4,267 cases of syphilis and 8,621 cases of gonorrhea were reported to the Michigan Department of Health. On the average, about one case of infectious venereal disease was reported every fifty-eight minutes, every day of the year. On the basis of these figures alone, venereal disease ranks by far the most frequently reported major communicable disease in Michigan.

But these figures reflect only a small part of the total problem. A recent survey made by the Department indicates that there is anywhere from five to ten times as much gonorrhea occurring and being treated as being reported. This suggests that there are anywhere from 40,000 to 80,000 cases of gonorrhea in Michigan today. Perhaps most serious, it is estimated that at this moment there are more than 58,000 Michigan persons with syphilis who are in need of treatment.

Any analysis of this problem must take into consideration the additional fact that venereal disease is primarily and initially a disease of young people. When we realize that these diseases affect those who have their greatest productivity still ahead, we can better understand the seriousness of the problem. The tragic part of it is that venereal disease is a needless disease. It is a preventable disease and even when not prevented it can be quickly diagnosed and effectively treated if found in time.

It is obvious that there remains an enormous gap between our knowledge and our application of that knowledge in the control of venereal diseases. What is needed to help bridge this gap? First of all, a clear understanding by the people, the patients, the health officers and the private physicians, that the venereal disease problem is serious and extensive. Second, we need more effective implementation of practical and sound objectives aimed at the control and eradication of this disease.

The four main objectives in a venereal disease control program are:

1. *Adequate Medical Attention for All Infected Persons.*—This must be the first objective because only through good medical care can the health of the patient be protected, the danger of the spread of infection be removed, and the disabilities which are so costly to patient and public alike be avoided.

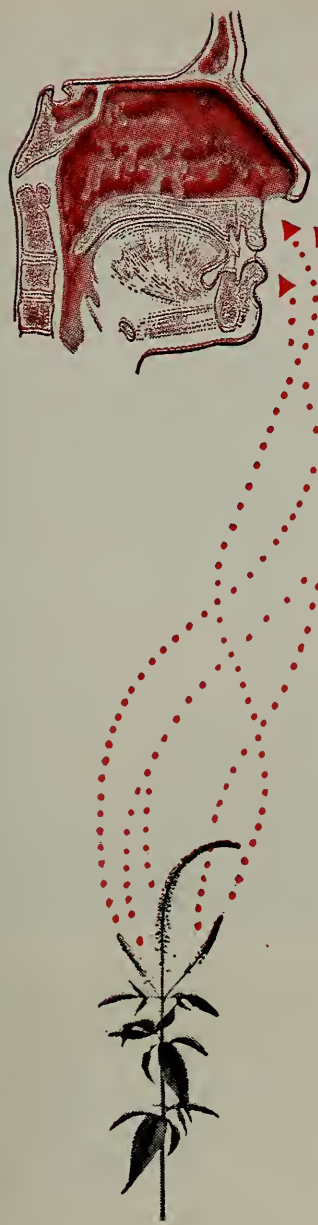
2. *Casefinding.*—In the last ten years, there has been a 66 per cent decrease in the number of reported cases of early latent syphilis and a 93 per cent decrease in the number of reported cases of primary and secondary syphilis. Effective casefinding depends upon: (a) adequate reporting; (b) exhaustive epidemiological investigations by both health department and private physicians; (c) routine serologic testing for syphilis in industry, hospitals, and in private medical practice.

3. *Protection of Michigan Babies from Venereal Disease.*—This requires adequate follow-up of expectant mothers who have a reactive serology followed by adequate treatment of those mothers and children found suffering from venereal disease.

4. *Health Education.*—Ultimately effective control of venereal disease depends upon public understanding. This can be accomplished most effectively through the parents and the schools. In addition, professional education is needed through the schools of medicine and nursing, and through consultation to any physician requesting it.

It is possible with our present knowledge practically to eradicate the venereal diseases in Michigan. However, this will not be done until there are adequate medical and public health facilities to insure that every case of infectious venereal disease is found and treated. This, in turn, depends upon a well-informed public that knows how venereal disease occurs, how it spreads, and how it can be treated and cured.





when pollen allergens attack the nose...

Triaminic provides more effective therapy in respiratory allergies because it combines two antihistamines[1,2] with a decongestant.

These antihistamines block the effect of histamine on the nasal and paranasal capillaries, preventing dilation and exudation.[3] *This is not enough;* by the time the physician is called on to provide relief, histamine damage is usually present and should be counteracted.

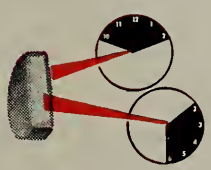
The decongestive action of orally active phenylpropanolamine helps contract the engorged capillaries, reducing congestion and bringing prompt relief from nasal stuffiness, rhinorrhea, sneezing and sinusitis.[4,5]

TRIAMINIC is orally administered, systemically distributed and reaches *all* respiratory membranes, avoiding nose drop addiction and rebound congestion.[6,7] TRIAMINIC can be prescribed for prompt relief in summer allergies, including hay fever.

References: 1. Sheldon, J. M.: Postgrad. Med. 14:465 (Dec.) 1953. 2. Hubbard, T. F. and Berger, A. J.: Annals Allergy p. 350 (May-June) 1950. 3. Kline, B. S.: J. Allergy 19:19 (Jan.) 1948. 4. Goodman, L. S. and Gilman, A.: Pharmacol. Basis Ther., Macmillan, New York, 1956, p. 532. 5. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 6. Lhotka, F. M.: Illinois M.J. 112:259 (Dec.) 1957. 7. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

Triaminic®

TRIAMINIC provides around-the-clock freedom from hay fever and other allergic respiratory symptoms with just one tablet q. 6-8 h. because of the special timed-release design.



Each TRIAMINIC timed-release tablet provides:
Phenylpropanolamine HCl.....50 mg.
Pheniramine maleate.....25 mg.
Pyrilamine maleate.....25 mg.

Also available: TRIAMINIC SYRUP for those patients of all ages who prefer a liquid medication. Each 5 ml. teaspoonful is equivalent to ¼ Triaminic Tablet or ½ Triaminic Juvelet. TRIAMINIC JUVELETS provide half the dosage of the Triaminic Tablet with the same timed-release action for prompt and prolonged relief.

STOP *running noses*  *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

In Memoriam

FRANK H. BETHEL, M.D., fifty-six, professor of internal medicine at the University of Michigan, died April 21, 1959.

Born in New York City, Doctor Bethel received a Bachelor of Arts from Princeton University in 1925, attended Cambridge University, England, for two years, and received his Doctor of Medicine from Johns Hopkins University in 1929.

In addition to being a professor at the University of Michigan, Doctor Bethel was director of the Simpson Memorial Institute at the University.

He was a member of the Central Society for Clinical Research, American Society for Clinical Investigation, Michigan Academy of Science, Arts and Letters, Phi Beta Kappa, and Sigma Chi.

DAVID BURLEY, M.D., ninety-five, Almont physician, died April 21, 1959.

Doctor Burley, one of Michigan's oldest practicing physicians, was a graduate of the former Detroit College of Medicine. The former Ontario farm boy began practicing medicine in 1893 in Almont, and continued his practice sixty-five years until his last illness. Almont observed "Doctor Burley Week" in 1953. Doctor Burley was a constant registrant at MSMS Annual Sessions and at Michigan Clinical Institutes and a lifetime advocate of postgraduate medicine.

ARTHUR J. CARLTON, M.D., seventy-eight, Upper Peninsula physician, died March 31, 1959. Born in Jamestown, N. Y., Doctor Carlton received his medical degree at the University of Michigan in 1904.

He practiced in Rapid River, where he established a hospital, and in Gladstone before moving to Escanaba in 1909.

Doctor Carlton was past president of the Delta-Schoolcraft County Medical Society, past president of the Escanaba Board of Education and a member of the St. Stephen's Episcopal Church.

ROBERT F. JAENICHEN, M.D., sixty-two, Saginaw orthopedic surgeon, died March 31, 1959.

A native of Detroit, Doctor Jaenichen attended the University of Michigan and was graduated in 1922 from Wayne University Medical School.

He was the inventor of a metallic hip joint which has been used to ease the pain and often restore mobility of persons disabled by diseased or fractured hip bones.

Doctor Jaenichen was a senior staff member of St. Luke's hospital, and a member of Knights Templar, Civitan Club and Jefferson Avenue Methodist Church, all of Saginaw.

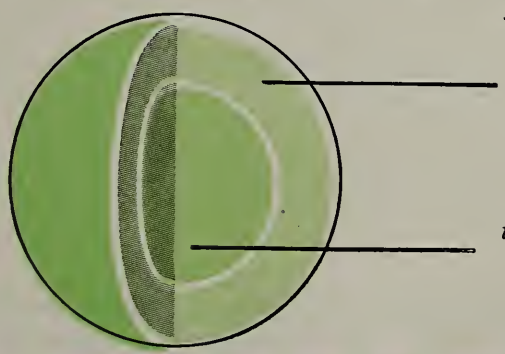
(Continued on Page 990)

Say you saw it in the Journal of the Michigan State Medical Society



the complaint: "nervous indigestion"

the diagnosis: any one of several nonspecific gastrointestinal disorders requiring relief of symptoms by sedative-antispasmodic action with concomitant digestive enzyme therapy. **the prescription:** a new formulation, incorporating in a single tablet the actions of Donnatal and Entozyme. **the dosage:** two tablets three times a day, or as indicated.



the formula: *in the gastric-soluble outer layer:*

Hyoscyamine sulfate	0.0518 mg.
Atropine sulfate	0.0097 mg.
Hyoscine hydrobromide	0.0033 mg.
Phenobarbital (⅛ gr.)	8.1 mg.
Pepsin, N.F.	150 mg.

in the enteric-coated core:

Pancreatin, N.F.	300 mg.
Bile salts	150 mg.

DONNAZYME™

Robins

A. H. ROBINS COMPANY, INCORPORATED • RICHMOND 20, VIRGINIA

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company
311 State Street S.E. Phone GL 9-9413
Grand Rapids 3, Mich.

Medical Arts Pharmacy
20-24 Sheldon S.E. Phone GL 6-9661
Grand Rapids 2, Mich.

(Continued from Page 988)

HARTMAN A. LICHTWARDT, M.D., sixty-six, Detroit surgeon, died April 28, 1959.

A native Detroiter, Doctor Lichtwardt was a graduate of Wayne State University School of Medicine and served with the U. S. Army Medical Corps in World War I.

In 1919 he was attached to the American Christian Hospital in Meshed where he started the first work among lepers in Iran.

In 1925, he had the distinction of being one of the few physicians ever ordained to the Presbyterian ministry.

Returning to Detroit in 1942, he joined the surgical staff at Ford Hospital. From 1946 until his retirement in 1958, Doctor Lichtwardt was medical director of Women's Hospital in Detroit.

In other fields, Doctor Lichtwardt was president of the Detroit branch of the Foreign Policy Association, chairman of the board of the World Study Council and a member of the Detroit Committee on Foreign Relations and the Economic Club of Detroit.

Interested in alcohol education, he also served with the Detroit Committee on Alcoholism and on the Michigan State Board of Alcoholism.

GORDON McKILLOP, M.D., sixty-four, practicing Gaylord physician, died March 24, 1959.

Doctor McKillop practiced medicine in Gaylord for thirty-two years. He was a life-long booster of sports, serving as athletic director of Tarkio College in Missouri, before enrolling in the University of Western Ontario at London, Ontario, where he received his medical degree in 1924.

He had been the chief of staff at the Otsego Memorial Hospital since its inception.

Doctor McKillop was a charter member and past president of the Gaylord Kiwanis Club, past president of the Youth Activities Club, a member of the Order of Eagles, Gaylord Country Club, and the Gaylord Fishing Club.

EUGENE H. RONEY, M.D., fifty-one, a Detroit practicing physician for twenty-five years, died April 10, 1959.

Doctor Roney was a graduate of Assumption College, the University of Detroit and Wayne State University School of Medicine.

He served as an army major in World War II.

FORDYCE H. STONE, M.D., seventy-one, a practicing physician in Beulah for forty-five years, died April 9, 1959.

Doctor Stone was a graduate of the Hering Medical College in Chicago.

He was active in civic and business affairs in his community. He was a former chairman of the board of directors of the Benzie Company, served on the board of directors of the Central State Bank and was vice president at the time of his death and also a member of the Benzonia Masonic lodge.

Say you saw it in the Journal of the Michigan State Medical Society

around the clock ulcer control with **B.I.D.** *dosage*



Just one 10 mg. Daricon tablet in the morning, and one at night before retiring, keeps your patient free from the pain and discomfort caused by gastrointestinal spasm, hypermotility, and hypersecretion.

Daricon is a remarkably potent and well tolerated antisecretory/antimotility agent. Its *naturally* prolonged action provides day and night relief of pain and symptoms associated with peptic ulcer, functional bowel syndrome, biliary tract dysfunctions, ulcerative colitis, and other gastrointestinal disorders characterized by spasm, hypermotility, and hypersecretion.

Dosage: 10 mg. b.i.d. (morning and evening).

EVEN REFRACTORY CASES RESPOND

new **DARICON***

Pfizer *Science for the world's well-being*

Pfizer Laboratories
Division, Chas. Pfizer & Co., Inc.
Brooklyn 6, New York

References: 1. Finkelstein, M., et al.: J. Pharmacol. & Exper. Therap. 125:330 (April) 1959. 2. McHardy, G., et al.: Postgrad. Med., in press. 3. Winkelstein, A.: Amer. J. Gastroenterol., in press. 4. Finkelstein, M., et al.: Presented at Fall Meeting, Amer. Soc. Pharmacol. & Exper. Therap., 1958. 5. Leming, B.: Clin. Med. 6:423 (March) 1959.

*Trademark



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

George H. Agate, M.D., East Lansing, is the author of an article entitled "Prevention of Staphylococcal Infections in Newborn Infants," published in THE JOURNAL of the Michigan State Medical Society, June, 1958, and digested in *Digest of Ophthalmology and Otolaryngology,* January-April, 1959.

Conrad L. Giles, M.D., Ann Arbor, is the author of an article entitled "Tonometer Tensions in the Newborn," published in *Archives of Ophthamology,* April, 1959.

David Barsky, M.D., Detroit, is the author of an article entitled "Keratomycosis, A Report of Six Cases," published in *Archives of Ophthalmology,* April, 1959.

Russell N. De Jong, M.D., Ann Arbor, is the author of an article entitled "The Treatment of Vascular Headaches," published in *GP,* April, 1959.

Merle Lawrence, Ph.D., Robert D. Burton, M.D., and David Wolsk, M.A., Ann Arbor, are the authors of an article entitled "Acoustics of the Opened Periotic Vestibule," published in A.M.A. *Archives of Otolaryngology,* April, 1959.

Alexander P. Kelly, Jr., M.D., Detroit, is the author of an article entitled "Subtotal Reconstruction of the Thumb," published in A.M.A. *Archives of Surgery,* April, 1959.

Joseph C. Sieracki, M.D., and Alex P. Kelly, Jr., M.D., Detroit, are the authors of an article entitled "Traumatic Epidermoid Cysts Involving Digital Bones," published in A.M.A. *Archives of Surgery,* April, 1959.

Earl F. Wolfman, Jr., M.D., and D. E. Boblitt, M.D., Ann Arbor, are the authors of an article entitled "Intramural Aortic Dissection as a Complication of Translumbar Aortography," published in A.M.A. *Archives of Surgery,* April, 1959.

A. D. Ruedemann, Jr., M.D., Detroit, is the author of an article entitled "The Electroretinogram in Hereditary Visual Cell Degeneration," presented at the Sixty-Third Annual Session of the American Academy of Ophthalmology and Otolaryngology, October, 1959, Chicago, and published in *Transactions of the American Academy of Ophthalmology and Otolaryngology,* March-April, 1959.

Fred W. Whitehouse, M.D., Detroit, is the author of an article entitled "Current Status of Chlorpropamide in Management of Diabetes Mellitus," published in *Henry Ford Hospital Medical Bulletin,* March, 1959.

William O'Driscoll, M.D., Joseph Sieracki, M.D., and William S. Haubrich, M.D., Detroit, are the authors of an article entitled "The Particulate Absorption of Fat: Its Direct Demonstration in a Normal Human," published in the *Henry Ford Hospital Medical Bulletin,* March, 1959.

Brock E. Brush, M.D., John H. Wylie, Jr., M.D., Melvin A. Block, M.D., Joseph Beninson, M.D., and John J. Spitzer, M.D., Detroit, are the authors of an article entitled "A Device for the Prevention of Phlebothrombosis and Pulmonary Embolism," published in the *Henry Ford Hospital Bulletin,* March, 1959.

W. W. Ackermann, M.D., Ann Arbor, is the author of an article entitled "Certain Factors Governing the Persistence of Poliovirus in Tissue Culture," from a Symposium on Latency and Masking in Viral and Rickettsial Infections, proceedings of a conference held at the University of Wisconsin Medical School, September, 1957, and listed in *Current Literature on Poliomyelitis and Related Diseases,* January, 1959.

David J. Sandweiss, M.D., Marcus H. Sugarman, M.D., and Jack M. Kaufman, M.D., Detroit, are the authors of an article entitled "Do Ulcer Diets Promote Coronary Heart Disease in Peptic Ulcer Patients?", published in *Harper Hospital Bulletin,* January-February, 1959. The authors were assisted by Marion E. Mann, B.Sc., Department of Dietetics.

Melvin L. Selzer, M.D., and Herbert Waldman, M.A., Ann Arbor, are the authors of an article entitled "The Use of Doxylamine in Schizophrenia: Pitfalls in the Evaluation of a New Drug," published in the *Journal of Nervous and Mental Disease,* December, 1958.

Melvin L. Selzer, M.D., Ann Arbor, is the author of an article entitled "On Involuntary Hospitalization for Alcoholics," published in *Quarterly Journal of Studies on Alcohol,* December, 1958.

R. V. August, M.D., Muskegon Heights, is the author of an article entitled "The Obstetrician and Hypnosis," presented at the first annual meeting of the American Society of Clinical Hypnosis, October, 1958, and published in *The American Journal of Clinical Hypnosis,* April, 1959.

Edgar E. Poos, M.D., Detroit, is the author of an article entitled "Stress Factors in Rhinology," read before the Sixth International Congress of Otolaryngology, Washington, D. C., May, 1957, and published in *Annals of Otology, Rhinology and Laryngology,* December, 1958.

Martin J. Urist, M.D., South Haven, is the author of an article entitled "The Etiology of the A and V Syndromes," published in the *American Journal of Ophthalmology,* December, 1958.

George W. Lechner, M.D., and Paul J. Connolly, M.D., Detroit, are the authors of an article entitled "Benign Neoplasms of the Small Intestine with a Report

(Continued on Page 994)

Antivert® stops



VERTIGO

Each ANTIVERT *tablet contains:*

Meclizine (12.5 mg.)—most effective antihistaminic to control vestibular dysfunction.[1]

Nicotinic acid (50 mg.)—the drug of choice for prompt vasodilation.[2,3]

Advantage of "dual therapy" confirmed:

Menger found ANTIVERT "improved or controlled symptoms in virtually 90% of vertiginous patients."[2]

Indications: Meniere's syndrome, arteriosclerotic vertigo, labyrinthitis, and streptomycin toxicity. Also effective in recurrent headache, including migraine.

Dosage: one tablet before each meal.

Supplied: bottles of 100 blue-and-white scored tablets. Prescription only.

References: 1. Charles, C. M.: Geriatrics 2:110 (March) 1956. 2. Menger, H. C.: Clin. Med. 4:313 (March) 1957. 3. Shuster, B. H.: M. Clin. North America 40:1787 (Nov.) 1956.

Roerig Rx

Division, Chas. Pfizer & Co., Inc.
New York 17, N. Y.
Science for the world's well-being



KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

(Continued from Page 992)

of Three Bleeding Benign Tumors of the Jejunum," published in the *Journal of the American Medical Association,* April 25, 1959.

Harold F. Falls, M.D., Ann Arbor, is the author of an article entitled "Ophthalmology as a Vocation," published in *The New Physician,* March, 1959.

W. S. Reveno, M.D., and **H. Rosenbaum, M.D.,** Detroit, are the authors of an article entitled "Long Term Effects of Corticosteroid Therapy," presented before the Detroit Academy of Medicine, January 13, 1959, and published in *Harper Hospital Bulletin,* January-February, 1959.

K. L. Krabbenhoft, M.D., and **R. C. Thumann, M.D.,** Detroit, are the authors of an article entitled "The I^{131} Diodrast Renogram for Evaluation of Kidney Function in Hypertension," published in *Harper Hospital Bulletin,* January-February, 1959.

Robert C. Moehlig, M.D., Detroit, is the author of an article entitled "Harper Hospital Profiles: Dr. Max Ballin," published in *Harper Hospital Bulletin,* January-February, 1959.

C. J. Tupper, M.D., and **M. B. Beckett, M.D.,** Ann Arbor, are the authors of an article entitled "Faculty Health Appraisal, The University of Michigan: Second Annual Report," published in *The University of Michigan Medical Bulletin,* January, 1959.

Ralph F. Knopf, M.D., and **C. William Castor, M.D.,** Ann Arbor, are the authors of an article entitled "Systemic Lupus Erythematosus in an Elderly Patient: A Case Report," published in the *University of Michigan Medical Bulletin,* January, 1959.

J. Frederic Johnson, M.D., Detroit, is the author of an article entitled "Intravenous Estrogens and Certain Factors in Blood Coagulation," published in *Clinical Medicine,* April, 1959.

Leopold Liss, M.D., Ann Arbor, is the author of an article entitled "Histopathology of Olfactorius Due to Sarcomatosis of the Meninges," published in A.M.A. *Archives of Otolaryngology,* February, 1959.

Justine L. Vaughen, M.D., and **Leonard F. Bender, M.D.,** Ann Arbor, are the authors of an article entitled "Effects of Ultrasound on Growing Bone," read at the Thirty-sixth Annual Session of the American Congress of Physical Medicine and Rehabilitation, Philadelphia, August, 1958, and published in *Archives of Physical Medicine and Rehabilitation,* April, 1959.

Joseph G. Molner, M.D., M.P.H., Jacob A. Brody, M.D., and **George H. Agate, M.D.,** Detroit, are the authors of an article entitled "Detroit Poliomyelitis Epidemic—1958," published in the *Journal of the American Medical Association,* April 18, 1959.

William H. Beierwaltes, M.D., Ann Arbor, is the author of an article entitled "The Clinical Radioisotope Unit and Alice Crocker Lloyd Memorial Laboratory," published in the *University of Michigan Medical Bulletin,* February, 1959.

Norman D. Henderson, M.D., Lansing, **Fred C. Garlock, M.D.,** Grand Ledge, and **Birger H. Olson, Ph.D.,**

(Continued on Page 996)

Say you saw it in the Journal of the Michigan State Medical Society



. . . and one to grow on

A tiny tablet of REDISOL to stimulate the appetite — to help in the intake of food for growth.

REDISOL is crystalline vitamin B_{12}, an essential vitamin for growth and the fundamental metabolic processes.

Ideal for the growing child, the REDISOL tablet dissolves instantly on contact in the mouth, on food or in liquids.

Packaged in bottles hermetically sealed to keep the moisture out and to retain vitamin potency in 25 and 50 mcg. strengths, bottles of 36 and 100 — in 100 mcg. strength, bottles of 36, and in 250 mcg. strength, vials of 12.

Also available as a pleasant-tasting cherry-flavored elixir (5 mcg. per 5-cc. teaspoonful) and as REDISOL injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

REDISOL®

cyanocobalamin, Crystalline Vitamin B_{12}

MSD

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

REDISOL IS A TRADEMARK OF MERCK & CO., INC.

Lansing, are the authors of an article entitled "Treatment of Acute Typhoid with Synnematin B," published in the *Journal of the American Medical Association,* April 25, 1959.

J. S. DeTar, M.D., Milan, is the author of an article entitled "Your Medical Practice in 1970, You Will Be More of a Family Physician," published in *The New Physician,* May, 1959.

Stewart N. Nickel, M.D., and **Henry H. Gale, M.D.,** Detroit, are the authors of an article entitled "Altered Prognosis with Cardiac Massage," published in the *Journal of the American Medical Association,* May 2, 1959.

Samuel J. Levin, M.D., Detroit, is the author of an original article "Management of the Acute Attack of Asthma in Childhood with Special Reference to Steroid Therapy," in the April issue of the A.M.A. *Journal of Diseases of Children.*

* * *

A one-day conference on "The Physicians Role in Mental Retardation" sponsored by the Child Welfare Committee of MSMS, the Department of Maternal and Child Health of the Michigan Department of Health in co-operation with the University of Michigan Medical School, will be held beginning at 8:30 a.m. in Room 5406 of the Main Hospital of the University of Michigan at Ann Arbor on Monday, June 29, 1959.

The American Academy of Ophthalmology and Otolaryngology will hold its annual session at the Parker House, Chicago, October 11-16, 1959. It has also arranged a very attractive program of clinics in Mexico, October 17 to 23, 1959.

* * *

John W. Smillie, M.D., Ann Arbor, was the guest speaker at the meeting of the Saginaw Valley Ophthalmological Society on May 5, 1959, at the High Life Inn in Saginaw.

* * *

The Journal of the Michigan State Medical Society for the year 1958 has been placed upon microfilm. Anybody wishing to economize on storage space to use THE JOURNAL as reference or libraries may obtain the microfilm roll. This consolidates a large bulky volume in one very small 37mm roll and will surely be a great convenience. Information may be obtained through our business office in Lansing.

* * *

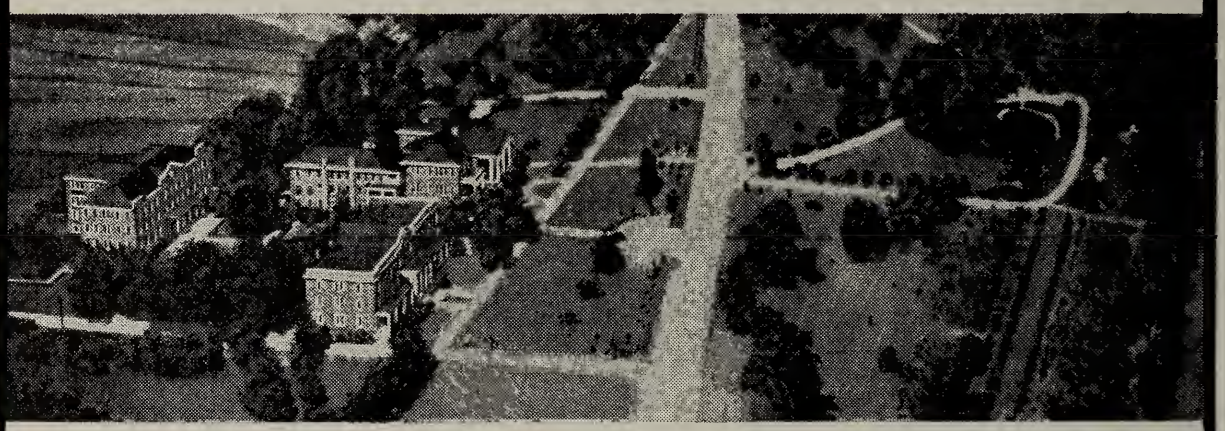
Applications for certification (American Board of Obstetrics and Gynecology), new and reopened. Part I, and requests for re-examination Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of applications is August 1, 1959. No applications can be accepted after that date.

Candidates are requested to write to the office of the

(Continued on Page 998)

Nursing Care for Elders In The Deep South

Green Acres
INC.
MILLEDGEVILLE, GA.



Owned by Doctors and operated by a registered nurse in a beautifully landscaped 20 acre estate in the mild climate of Middle Georgia. All buildings housing guests sprinkled. *Rates do not include medical care, medication, personal laundry or other extras.

Mrs. Sue H. Baldwin, R. N.
Superintendent

***Monthly Rates** — **Camellia Court from $150** / **Magnolia Hall from $210**

The South's Finest Health Resort for Elders

Give me two good reasons



why Buttermilk is a dietary food!

LOW CALORIES, HIGH ESSENTIAL NUTRITION

One glass, or ½ pint, of plain Buttermilk (uncreamed) contains only 87 calories; a whole quart, only 350. Yet uncreamed buttermilk contains all of whole milk's complete proteins, B vitamins, and minerals. One good dietary reason!

BENEFICIAL BACTERIAL-ENZYME ACTION

For many years Buttermilk has been prescribed as an aid in promoting healthful bacterial balance in the digestive tract, especially the lower tract. Second good dietary reason!

and Borden's is extra good Buttermilk!

Making buttermilk sounds simple, but certainly isn't simple at all! Borden's Buttermilk has a deserved reputation for fresh, sweet wholesome flavor.

Borden's

MICHIGAN MILK DIVISION

(Continued from Page 996)

Secretary for a current Bulletin, if they have not done so, in order that they may be well informed as to the present requirements. Application fee ($35.00), photographs, and lists of hospital admissions must accompany all applications. Address Robert L. Faulkner, M.D., Secretary, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *



U OF M MEDICAL CENTER

Here is a missile's eye view of the University of Michigan Medical Center which was displayed recently to doctors of medicine at a special open house on Doctor's Day. The day-long program featured special exhibits, lectures, clinical tours and closed circuit TV broadcasts of surgical techniques. Two MSMS officials were co-chairmen of Doctor's Day, President G. B. Saltonstall, M.D., Charlevoix, and President-elect M. A. Darling, M.D., Detroit.

* * *

The American College of Gastroenterology announces that its annual course in Postgraduate Gastroenterology will be given at The Biltmore in Los Angeles, California, on September 24, 25 and 26, 1959.

The faculty for the course will be drawn from the medical schools in and around Los Angeles. The subject matter to be covered in the course, from a medical as well as surgical viewpoint, will be essentially the advances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the mouth, esophagus, stomach, pancreas, spleen, liver and gall bladder, colon and rectum. There will be a clinical session at the College of Medical Evangelists and this year, in addition to individual papers, there will be several panel discussions of interest.

For further information and enrollment, write to the American College of Gastroenterology, 33 West 60th Street, New York 23, N. Y.

* * *

The National Library of Medicine has just issued *Fungus Infections,* a bibliography on systemic and superficial fungus infections. This is another in its series of selective bibliographies on subjects of current interest. Others in the series are on space medicine, cancer chemotherapy, and staphylococcal infections. A complete list of such bibliographies is available. Single copies of the bibliographies can be obtained at no cost upon request to the: Acquisition Division, National Library of Medicine, 7th Street & Independence Ave. S.W., Washington 25, D. C.

* * *

In recognition of World Mental Health Day, April 7, 1959, the Department of Psychiatry of Wayne State University College of Medicine held an open staff meeting. The observation of World Mental Health Day consisted in the designation of certain special research and development projects to be advanced in 1960. This is in harmony with the resolution of the World Federation Organization of Mental Health, a United Nations Agency. John M. Dorsey, M.D., Professor and Chairman of the Department, named the following projects selected by the staff for special emphasis:

1. The problem of child care and the psychological aspects of education as well as the psychiatric education of medical students.

2. The mental health of the college student.

3. Problems of convalescence, vocational rehabilitation and the psychological aspects of industrial medicine.

4. Problems of migration and the migratory worker.

5. Problems of addiction, including alcoholism and the industrial aspects of it.

6. Problems of depression and suicide, with special reference to the rescue fantasy.

These projects, which are conducted by various members of the Department of Psychiatry, have been designated for special effort during the World Mental Health Year (1960). Their nature is mostly inter-disciplinary, involving not only the Department of Psychiatry and the Detroit Receiving Hospital, but also other colleges and organizations interested in mental health.

* * *

"MD International," a medical program, was honored Tuesday, April 7 as the television show which contributed most to international understanding during 1958, at the annual presentation of the coveted Peabody Awards for outstanding accomplishments in television.

The hour-long color documentary, most recent of the "March of Medicine" series sponsored by Smith Kline & French Laboratories, showed American physicians abroad in their dual role as men of medicine and unofficial ambassadors of the United States as they practice at the "bedside of the world." The doctors were seen at work at outposts in Korea, Hong Kong, Borneo, Burma, Nepal, Lebanon, Ethiopia, and India.

The program presented in co-operation with the American Medical Association, was inspired by President Eisenhower's appeal for "People-to-People" activities in all professions and walks of life as a keyway to further international understanding. "MD International" was selected to receive the George Foster Peabody Award for "outstanding contribution to international understanding." Dean John E. Drewry of the University of Georgia's Henry W. Grady School of Journalism which sponsors the awards, made the presentation to Joseph N. DuBarry, Assistant to the President of Smith Kline & French Laboratories, at a luncheon meeting of the Radio and Television Executives Association.

The "March of Medicine" series has been produced

(Continued on Page 1000)

AN
AMES
CLINIQUICK™
CLINICAL BRIEFS
FOR MODERN PRACTICE



How can the problem of "postcholecystectomy syndrome" be reduced?

A "routine" operative cholangiogram is now recommended in addition to thorough surgical exploration, reducing the number of cholecystectomized patients later presenting the same symptoms as before the operation.

Source: Vazquez, S. G.: J. Internat. Coll. Surgeons *28*:394, 1957.

for pre- and postoperative management of biliary tract disorders... **DECHOLIN®** *"therapeutic bile"*

*Hydro*choleresis with DECHOLIN combats bile stasis by flushing the biliary tract with dilute, natural bile...

- corrects excessive bile concentration
- helps to thin gallbladder contents
- benefits patients with chronic cholecystitis, noncalculous cholangitis, and biliary dyskinesia

in functional G.I. distress... **DECHOLIN®** with **BELLADONNA**

- reliable spasmolysis
- improved liver function

available: DECHOLIN Tablets: (dehydrocholic acid, AMES) 3¾ gr. (250 mg.). Bottles of 100, 500 and 1,000; drums of 5,000.

DECHOLIN with Belladonna Tablets: (dehydrocholic acid, AMES) 3¾ gr. (250 mg.) and extract of belladonna ⅙ gr. (10 mg.). Bottles of 100 and 500.

60659

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

(Continued from Page 998)

by SKF Laboratories in co-operation with the American Medical Association as a public service since 1952. It was the first television series to receive an Albert Lasker Award for medical journalism.

* * *

Memorial Phoenix Project.—The University of Michigan has launched a campaign to raise $2,000,000 for its Memorial-Phoenix Project for atomic research.

At a meeting of 104 state business and industrial leaders Wednesday, April 1, campaign and project officials outlined the results of Phoenix research over the past 10 years, and described the needs of the future.

James C. Zeder, Chrysler Corporation vice-president and campaign committee chairman, told the group that funds raised to establish the project in 1948 as a memorial to the U-M's World War II dead are nearly exhausted.

Zeder said the $2 million would pay for five more years of research on the peaceful applications and implications of atomic energy.

A total of $8 million was contributed by University students, alumni, friends and industrial groups to start the Phoenix Project. The money has been used to build a million-watt nuclear reactor and modern research facilities, to support 185 research projects, to buy equipment, to free scientists for full-time investigations, and to provide information about the atomic energy field.

The Phoenix Project is "the largest independent atomic research program in the world." It operates the nation's most powerful college nuclear reactor, has brought about the country's largest enrollment in nuclear engineering and science at the U-M, and has sent people to help twenty other nations set up their own peaceful A-energy programs.

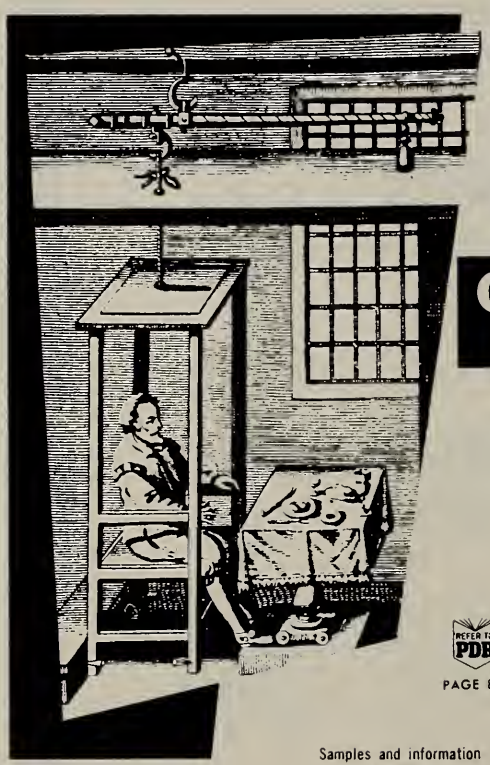
Dr. Henry J. Gomberg, the project's assistant director, noted that Phoenix's independent position enabled it to help strip the secrecy away from atomic energy activities. Over 300 technical publications have resulted from Phoenix-supported research. Ten years ago, one room in the University Hospital was set aside for the use of radioactive materials in diagnosis and therapy; a twenty-four room suite is now required, and all U-M medical students receive full training in the new techniques.

* * *

Medical educators from fifty different countries will gather in Chicago for the Second World Conference on Medical Education, August 29 to September 4, jointly sponsored by the great world bodies of medicine, and will provide a common ground for the free exchange of scientific information and experiences between countries. The conference is being held under the auspices of the World Medical Association, which was founded twelve years ago and is now composed of fifty-five national medical associations representing about 700,000 physicians.

Collaborating with the World Medical Association in sponsoring the Chicago conference are the World Health Organization, the Council for International Organizations of Medical Sciences, and the International Association of Universities.

This second conference will give medical educators an



Sanctarius on his steelyord chair in the act of weighing himself for o metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR

PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

opportunity to examine the progress that has been made during the five-year interval in extending medical education—the real basis of all medical care—and raising its standards.

Between 1,500 and 2,000 persons from all over the world will attend the conference; there will be 125 speakers from about fifty countries, and all business, including lectures, will be translated simultaneously into English, French, and Spanish.

* * *

Albert D. Ruedemann, M.D., of Wayne State University College of Medicine received the Lucien Howe Award from the University of Buffalo Thursday, April 9, 1959, for his noteworthy contributions to ophthalmology. Presentation was made by Clifford C. Furnas, chancellor of the University at a meeting of the Buffalo Ophthalmological Club. The Howe award is given annually to an outstanding ophthalmologist.

Dr. Ruedemann is professor and chairman of the department of ophthalmology and Director of Kresge Eye Institute. He also heads the departments of ophthalmology at Detroit Receiving and Harper hospitals. He graduated from the University of Michigan medical school in 1923. He was certified as a specialist by the American Board of Ophthalmology and Otolaryngology in 1929. He organized and headed the department of ophthalmology at the Cleveland Clinic for twenty-three years.

In 1947, Dr. Ruedemann came to Detroit to head the ophthalmology department at Wayne State. The Kresge Foundation asked him to organize an eye institute in 1948. The Kresge Eye Institute, located on the University Medical Campus adjacent to Detroit Receiving and Detroit Memorial hospitals, has become internationally known through its educational and research program on diseases of the eye.

* * *

State Indigent Patient Care Suspended.—University Hospital, a self-supporting unit of The University of Michigan Medical Center, has refused to accept patients from state institutions except in emergencies. The action followed when the state fell more than $500,000 behind in payments for the care of its medically indigent. Affected are patients from state institutions at Lapeer, Coldwater, Caro and Northville; others from the Girl's Training School at Adrian; The Michigan's Children's Institute, Ann Arbor; and cases falling under the Michigan Crippled Children's Commission.

University Hospital is the second major hospital in Michigan forced to suspend care to the state. Detroit Children's Hospital took the step early this year. Michigan has long been a leader in the nation in the care of its medically indigent. But individual self-supporting hospitals are unable to assume the burden which voters have assigned to the state itself.

Over the past ten years, University Hospital has lost $895,000 through actual services rendered to the Michigan Crippled Children's Commission alone. If current charges to the Commission go unpaid, this figure will reach $1,147,000. Most of the loss is accounted for by an arbitrary ceiling placed on medical care by the legislature.

H. Marvin Pollard, M.D., of the University of Michigan Medical Center, was elected a Regent of the American College of Physicians at the Association's annual session in Chicago. He has served as Michigan Governor of the American College of Physicians since 1953.

* * *



COUNTY SOCIETIES HONOR SCIENCE FAIR WINNERS

Students winning best of show for their medical exhibits at the recent Metropolitan Detroit Science Fair were honored jointly by the Macomb, Oakland, and Wayne County Medical Societies. Pictured above is Milton R. Weed, M.D., president of WCMS, presenting a Certificate of Merit to a happy winner.

* * *

A new consulting and diagnostic service for multiple sclerosis patients has been established at Wayne State University's College of Medicine. The clinic was made possible by a $20,000 grant from the Michigan chapter of the National Multiple Sclerosis Society, a United Fund-Torch Drive Agency. John T. McHenry, M.D., associate professor of neurology, has been appointed director of the clinic.

Research projects into the cause of multiple sclerosis, a disease of the central nervous system, will also be conducted by the department of neurology. Under the terms of the Society's affiliation, the department of neurology will provide neurological supervision and clinical evaluations for the referring physician. The ultimate responsibility for patient care rests with the family physician.

Physical therapy and related treatments will be administered at the Rehabilitation Institute of Metropolitan Detroit and other community agencies.

* * *

Group Health Insurance, Inc., of New York City, and the Federal government are collaborating in an experimental project whose possibilities are unlimited. National Institute of Mental Health has granted GHI $300,000 to help finance a two-year program designed to combat mental illness with preventive medicine through medium

of prepayment. In other words, government will subsidize private, voluntary health insurance so that it may broaden benefits without increasing charges.

Over a two-year trial period, a cross-section of 30,000 GHI members in Greater New York will be entitled to psychiatric services in office and hospital at a fraction of the actual cost. Major part of the expense will be borne by the $600,000 special pool contributed in equal parts by GHI and National Institute of Mental Health.

Very few prepaid health insurance plans in force today, nonprofit or commercial, cover mental and nervous ailments or their prevention. Purpose of this new project is to determine feasibility of broadening benefits and ascertaining what premium costs would have to be.

* * *

The International College of Surgeons has announced that it will hold its fourth around-the-world postgraduate refresher clinic tour in the late Fall. Edward L. Compere, M.D., of Chicago, president of the United States Section, ICS, will be the co-ordinator of medical activities.

Departure will be by plane from San Francisco, October 10. The tour participants will take in specially arranged meetings of ICS Sections in Tokyo, October 18-19; Hong Kong, October 29-30; Bangkok, November 2; Tel Aviv, November 20; Istanbul, November 24, and Athens, November 27.

Sightseeing trips have been arranged for these and other countries, including Thailand, India, Ceylon, Egypt, Lebanon, and Jordan. Arrival in New York will be about December 1. Accommodations are limited.

For further information, write to the Secretariat, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, or to the International Travel Service, Inc., 119 South State Street, Chicago 3.

* * *

The University of Michigan physicist's "bubble chamber" is regarded as one of the major developments in the field of nuclear physics since the end of World War II. The University has the nation's largest graduate program in nuclear science and engineering. University of Michigan botanists have found radioactive tracers an invaluable tool in their basic study of the ways plants select and absorb nutrients in the soil.

* * *

Wallace W. Tourtelotte, M.D., assistant professor of neurology at The University of Michigan Medical Center, received the S. Wier Mitchell Award at the annual meeting of the American Academy of Neurology, April 16, 1959, at Los Angeles, California. The $250 award acknowledged his original work on the chemistry of cerebrospinal fluid. It is given each year to a junior member of the Academy in recognition of his accomplishments and research.

Dr. Russell N. DeJong, chairman of the Department of Neurology, University of Michigan Medical Center, termed Dr. Tourtelotte's research "very original and

the "full-range"
oral hypoglycemic agent

DBI

Trademark, brand of Phenformin

in the management of
mild, moderate and severe diabetes
(juvenile and adult)

important." Dr. Tourtelotte was one of several University of Michigan scientists who recently analyzed the fatty content of normal spinal fluid for the first time. The discovery unlocked a new field of development in the laboratory study of the illusive disease, multiple sclerosis.

* * *



A second series of lectures sponsored by the Michigan Tuberculosis Association was introduced recently at Michigan State University. Called the Charles Maurice Yates Lectures, the first of this series was delivered by Dr. Charles L. Hudson, professor of medicine at the Western Reserve University Medical School, Cleveland, Ohio. Speaking before a Conference on Medical Writing for the Mass Media, Hudson discussed "Science Writers and Doctors."

Doctors and science writers must have an opportunity to meet and talk, to promote understanding of each other's problems, to generate respect each for the other, and to recognize the rights of individuals, of writers, of doctors, and of the public, Hudson stated.

Another lecture series, the Henry Brooks Baker Lectures, have been sponsored by the Michigan Tuberculosis Association since 1952. They are given annually in December before the School of Public Health, University of Michigan.

* * *

The American College of Obstetricians and Gynecologists, at its seventh annual meeting, April 6-8, 1959, in Atlantic City, selected a Michigan member, C. Paul Hodgkinson, M.D., of Henry Ford Hospital, Detroit, as President-elect. Dr. Hodgkinson is a graduate in Pharmacy, University of Pittsburgh, 1925; and a graduate in Medicine, Temple University, 1936. He took postgraduate work at the University of Michigan, receiving his M.S. degree in obstetrics and gynecology.

* * *

An all alumni-faculty scientific program featured the 91st alumni reunion and clinic day of Wayne State University College of Medicine, Wednesday, May 13. More than 200 graduates attended both the science section and dinner dance at the Hotel Fort Shelby. The science program began at 9:30 a.m. and included sections on surgery, medicine, pathology, anesthesiology, obstetrics and gynecology, radiology and psychiatry.

Theodore I. Bergman, M.D., president of the medical alumni, presided and Duncan H. Cameron, M.D., Farmington, was program chairman.

At the banquet Wednesday evening, nine fifty-year graduates of the College of Medicine were given golden anniversary certificates by Dr. Osborne A. Brines, pro-

DBI (N^1-β-phenethylbiguanide HCl) is an entirely new oral hypoglycemic compound, different in chemical structure, mode of action, and in spectrum of activity from the sulfonylureas. DBI is usually effective in low dosage range (50 to 150 mg. per day).

"full-range" hypoglycemic action — DBI lowers elevated blood-sugar and eliminates glycosuria in mild, moderate and severe diabetes mellitus . . .

brittle diabetes, juvenile or adult—DBI combined with injected insulin improves regulation of the diabetes and helps prevent the wide excursions between hypoglycemic reactions and hyperglycemic ketoacidosis.

stable adult diabetes — satisfactory regulation of diabetes is usually achieved with DBI alone without the necessity for insulin injections.

juvenile diabetes — DBI often permits a reduction as great as 50 per cent or more in the daily insulin requirement.

primary and secondary sulfonylurea failures—DBI alone, or in conjunction with a sulfonylurea, often permits satisfactory regulation of diabetes in patients who have failed to respond initially or who have become resistant to oral sulfonylurea therapy.

smooth onset — less likelihood of severe hypoglycemic reaction — DBI has a smooth, gradual blood-sugar lowering effect, reaching a maximum in from 5 to 6 hours, and a return to pretreatment levels usually in 10 to 12 hours.

safety — daily use of DBI in therapeutic dosage for varying periods up to 2½ years has produced no clinical toxicity.

side reactions—side reactions produced by DBI are chiefly gastrointestinal and occur with increasing frequency at higher dosage levels (exceeding 150 mg. per day). Anorexia, nausea or vomiting may occur — but these symptoms abate promptly upon reduction in dose or withdrawal of DBI.

supplied — DBI, 25 mg. scored, white tablets — bottle of 100.

IMPORTANT — before prescribing DBI the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects, precautions and contraindications, etc. Write for complete detailed literature.

an original development from the research laboratories of

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Laboratories, division • 250 East 43rd Street, New York 17, N. Y.

fessor and chairman of pathology. They are: Drs. Guy D. Briggs and Henry Cook, Flint; Dr. Alfred A. Wade, Howe, Indiana; Drs. Albert L. French, Euclid V. Joinville and Edward J. O'Brien, Detroit; Dr. William G. Coulter, Windsor; Dr. Burton L. Rockwell, Drickany Falls, N. Y.; and Dr. John C. Sanford Brown, Orange, California.

Distinguished service citations were presented at the banquet to Loren W. Shafer, M.D., and John E. Webster, M.D., both of Detroit.

Giving scientific papers were Drs. Leonard F. Vanraaphorst, C. Jackson France, Warren O. Nickel, Donald E. Economy, Saul Sakwa, Don W. McLean, Arnold R. Axelrod, Yoshikazu Morita, George C. Thosteson, Robert B. Leach, Rosser L. Mainwaring, Elmer R. Jennings, Edward T. Glowacki, Charles E. Darling, W. George Belanger, Benjamin Jeffries, Osborne A. Brines, Charles G. Johnson and Gordon B. Myers.

* * *

An exhibit on intravenous aortography and one on a study of the development of sensory cell innervation in the inner ear won the top awards for scientific exhibits at the ninth annual convention of the Student American Medical Association, May 1, 1959, in Chicago.

The scientific exhibit awards—called the SAMA-Lakeside awards—were presented to three senior medical students and three residents. The top award winners are Dr. Eugene F. Bernstein, a resident at the University of Minnesota Hospitals, and Conrad A. Proctor, a senior student at the University of Michigan.

The first prize consists of a plaque, $500, and the privilege of displaying the exhibit at the American Medical Association's annual meeting in Atlantic City, June 8-12. In addition, the two top winners were awarded an expense-free week during the AMA convention.

* * *

David I. Sugar, M.D., Detroit, was chosen President-elect of the Wayne County Medical Society at the annual meeting of May 4. Doctor Sugar will succeed President Milton R. Weed, M.D., in May, 1960. Hugh M. Fuller, M.D., was re-elected Secretary and Charles W. Sellers, M.D., was placed on the Board of Trustees.

* * *

Oliver B. McGillicuddy, M.D., Lansing, Councilor of the Second District of MSMS, was appointed by G. B. Saltonstall, M.D., Charlevoix, as the official MSMS representative for the Michigan Hospital Association's 1959 contest entitled "Annual Search For New Hospital Achievements." Besides the Michigan State Medical Society, one judge each will be representative of the University of Michigan; Michigan State University; Michigan Bell Telephone Company; Catholic Charities; Management; and the Citizens Research Council.

* * *

Austin Smith, M.D., former Editor of the *Journal of the American Medical Association,* has been elected as full time president of the Pharmaceutical Manufacturers Association. The PMA recently was reorganized by merging the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers Association. Dr. Smith will be the first full time paid chief executive officer of the Association and will direct its destinies with the co-operation of its board of directors. His office will be at 503-7 Albe Bldg., Washington 5, D. C. Congratulations, Dr. Smith!



If she needs nutritional support . . . she deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

Lederle

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

Russell T. Woodburne, M.D., University of Michigan School of Medicine, was selected to lead a sectional meeting at the first National Conference on the Legal Environment of Medical Science at the University of Michigan in May.

* * *

John W. Rigterink, M.D., Grand Rapids, who is retiring after fifty-seven years of practice, was honored at the Grand Rapids Clark Home. He was presented a framed scroll in recognition of his thirty-eight years as physician for the Home.

* * *

Donald V. Sargent, Saginaw County Medical Society president, presented certificates to twenty-one Saginaw area high school pupils entering outstanding exhibits pertaining to medicine in the second annual Saginaw County Science Fair. The society honored the young people to encourage them to continue their pursuit of science.

* * *

An invitation to Michigan physicians to compete for two cash awards for original work in the fields of obstetrics and gynecology is extended by the American College of Obstetricians and Gynecologists, District V which includes Michigan. Papers describing original investigative or clinical work in the two fields are desired. Information may be obtained from Edwin S. Hoffman, M.D., 766 Fisher Building, Detroit 2.

* * *

James Gerity, Jr., of Adrian, an advisory member of the MSMS Rheumatic Fever Control Committee, has been elected President of the Committee of One Hundred, succeeding the late Charles F. Kettering.

Congratulations, Mr. Gerity!

* * *

James E. Lofstrom, M.D., Detroit, has been awarded a $33,239 grant by the American Cancer Society. The award is for a one-year study of the effects of radiation on body functions. Doctor Lofstrom is past president of the Southeastern Michigan Division of the American Cancer Society.

* * *

The American Association of Blood Banks will hold its 12th annual meeting at the Edgewater Beach Hotel, Chicago, November 4-7, 1959. The conference theme will be "The Compleat Transfusion Service."

* * *

Arthur A. Humphrey, M.D., Battle Creek, has been presented the American Cancer Society's highest award to an individual by the Michigan division of ACS. He received the Tiffany Medal in recognition of his "important contribution to the control of cancer." Dr. Humphrey long has been active in the Calhoun County and Michigan Division cancer units and has written many papers about cancer and allied subjects.

* * *

The Arizona Pharmaceutical Association adopted a resolution recommending that druggists who customarily send Christmas gifts to physicians do so in the form of donations to the American Medical Education Foundation in the individual doctor's honor. In 1958, this approach resulted in contributions of $1,600 to AMEF in the names of physicians.

Say you saw it in the Journal of the Michigan State Medical Society

Several doctors spoke at the seventh annual Management Conference for County Medical Care Facilities and County Infirmaries. The speakers at this recent Michigan State University conference included Lester E. Wolcott, M.D., of Lansing, and James W. Rae, Jr., M.D., and Edwin M. Smith, M.D., both of Ann Arbor.

* * *

Vaughn Monroe, nationally-known entertainer, recently spoke at the Macomb-Oakland-Wayne cancer banquet at the Detroit Cancer Center. Mr. Monroe, whose family has been attacked three times by cancer, told the assembly: "People die directly of cancer, but indirectly of superstition, of indifference and of fear. Those are the enemies, and it is only through the efforts of you who know by experience that they can be defeated."

* * *

A. B. Aldrich, M.D., was co-chairman for the annual Copper Country Career Day at Houghton. About 500 Copper Country high school youths participated to get advice on careers in medicine and 15 other business and professional fields.

* * *

Walter H. Obenauf, M.D., of Ypsilanti, is the new president of the Michigan Society of Neurology and Psychiatry. He also is president of the Michigan Branch of the American Psychiatric Association.

* * *

The Muskegon County Medical Society has selected Arthur L. Benedict, M.D., as its new president-elect. Following the recent death of President Norman A. Fleischman, M.D., president-elect, L. L. Loder, M.D., was advanced to the presidency.

C. Paul Hodgkinson, M.D., Detroit, was named president-elect at the recent annual meeting of the American College of Obstetricians and Gynecologists in Atlantic City. Doctor Hodgkinson, who obtained his M.D. degree from Temple University School of Medicine, has taken postgraduate work at the University of Michigan Medical School and obtained his M.S. in obstetrics and gynecology.

* * *

Again this summer, July 29-August 15, the University of Southern California School of Medicine will offer a postgraduate refresher course in Honolulu and on board the *S.S. Lurline*. Pamphlets and information may be obtained from Director, Postgraduate Division, School of Medicine, University of Southern California, 2025 Zonal Avenue, Los Angeles 33, California.

* * *

U-M in National Study—The University of Michigan is one of 15 medical centers in the nation and Canada which will participate in a two-year epidemiological study of leukemia in childhood. This national co-operative leukemia study is sponsored by the National Cancer Institute. The Michigan study will consider children with leukemia and other malignancies who are admitted to the University Hospital during 1959 and 1960. Members of the project staff include Thomas Francis, Jr., M.D., Donald C. Smith, M.D., and Janice B. Vanderberg, B.S.N.

* * *

The Medical Advisory Committee of Michigan Hospital Service (Blue Cross) is composed of twelve doctors of medicine, each appointed for a three-year term.



he deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

Half the Medical Advisory Committee is composed of members of the Board of Trustees of Michigan Hospital Service; the other six are appointed by the Michigan State Medical Society.

The personnel of the Committee is as follows: *Trustee Members*—Wm. S. Reveno, M.D., Detroit, Chairman, . C. Baumgarten, M.D., Detroit, O. O. Beck, M.D., irmingham, Wm. M. LeFevre, M.D, Muskegon, James . Logie, M.D., Grand Rapids, D. R. Smith, M.D., on Mountain. *Appointed Members*—Frank J. Busch, I.D., Saginaw, C. W. Colwell, M.D., Flint, L. Fernald oster, M.D., Detroit, W. S. Jones, M.D., Menominee, . L. Novy, M.D., Detroit, and Ralph W. Shook, M.D., alamazoo.

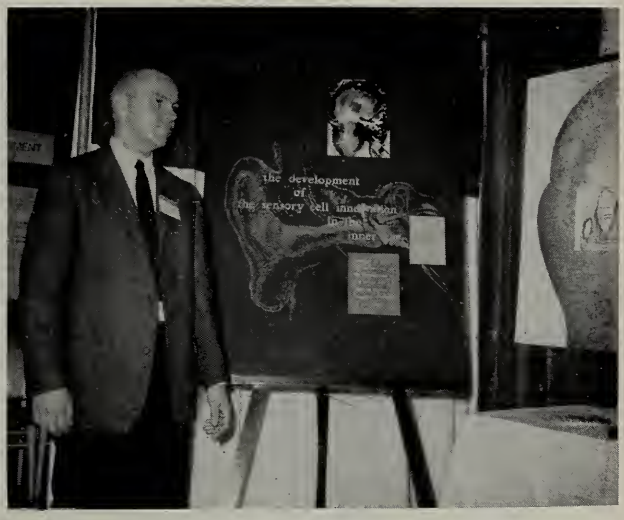
The purpose of the Medical Advisory Committee to lichigan's Blue Cross is to act as a liaison group be- veen the medical profession and Michigan Hospital ervice and to guide Blue Cross in matters medical. The ledical Advisory Committee to MHS represents the octor of medicines' viewpoint.

* * *

E. I. Carr, M.D., Lansing, was the recipient of an onorary degree from Cleary College, Ypsilanti, at its ecent convocation. Doctor Carr was cited "in recogni- on of his service as a scholar, a surgeon and an admin- trator, reacting to the benefit of his community, the tate and the Nation."

Doctor Carr's degree is Doctor of Science in Business dministration.

Congratulations, Doctor Carr!



Conrad A. Proctor, medical student at the University of Michigan, was the recipient of the First Prize Award and $500 cash in the Student American Medical Association Scientific Exhibit competition in Chicago, May 1-2-3. His prize-winning exhibit will be shown at the American Medical Association annual meeting at Atlantic City. The exhibit is entitled "The Development of Sensory Cell Innervation in the Inner Ear."

* * *

Genesee Makes Record at Cancer Clinic.—An interesting sidelight of the registration at Genesee's Cancer Day on April 22 was that more out of Genesee County

physicians attended than was the total registration of GCMS members. The Scientific Program featured Ulrich Henschke, M.D., New York City; Danely P. Slaughter, M.D., Chicago, Ill.; Freddy Homburger, M.D., Cambridge, Mass.; Owen H. Wangensteen, M.D., Minneapolis, Minn., and George T. Pack, M.D., New York. All speakers stressed continued adherence to early diagnosis of cancer and in general gave a review of the progress of cancer during the past 14 years with the following highlights:

People have become more cancer conscious; cancer is curable if diagnosed early; the public is less fearful of cancer because it has lost much of its mystery; great strides have been made in treatment of cancer (many cases were presented to exemplify this); to date there is no specific cure for the wild cancer cell; management has been improved to the great advantage of the patient.

H. B. Elliott, M.D., of Flint was Chairman of the Cancer Day Committee. The meetings were presided over by J. E. Livesay, M.D., President of Genesee County Medical Society, G. B. Saltonstall, M.D., Charlevoix, President of the Michigan State Medical Society, and James W. Logie, M.D., Grand Rapids, President of the Kent County Medical Society.

* * *

A revised program for prospective medical assistants has been developed at Bay City Junior College through the co-operation of Bay County Medical Society, Bay County Medical Assistants Society and college business department.

The modernized program—resulting from a two-year re-evaluation study—will be inaugurated in September, 1959.

Some of the features are orientation to medical secretary work, talks by doctors and medical secretaries, field trips to doctors' offices, and orientation to public health vocations.

In addition, there will be training in shorthand, dictaphone, business machines, letter-writing, physiology and anatomy. During the second year courses in nursing arts and orientation to the medical laboratory will be offered. Students will also have the opportunity to work 12 hours weekly in offices of physicians.

In preparing the program, the Medical Society was represented by Drs. Walter L. Howland, Frederick J. Chapin, Harry F. Vail and Harold C. Shafer; the medical assistants by Mrs. Martha Hogel, Mrs. Arlene Bublitz, Mrs. Marcia Hornsby and Miss Joan Halstead.

* * *

Seven new developments in the voluntary health insurance business are resulting in the extension of protection to the Senior Citizens of the nation, according to the Health Insurance Association of America.

A recent HIAA report forecast that the proportion of older persons coming under the protection of health insurance "will continue on a rising trend approaching the relative extent of coverage owned by the population at the younger ages."

The seven recent developments include:

1. New issuance of individual insurance at advanced ages.



they deserve

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

2. New issuance of group insurance to older people who are members of various types of associations.
3. Insurance coverage that becomes paid-up at age 65, thus enabling the policy-holder to defray protection costs during his productive years.
4. Continuation into the later years of individual insurance purchased at the younger ages.
5. Continuation of insurance on older active workers under group plans.
6. Continuation of group insurance for workers who retire and for their dependents, generally with part or all of the premium paid by the employer.
7. Continuation on an individual basis of coverage which originally was provided by group insurance.

* * *

MEDICAL TELEVISION SHOWS PRODUCED BY MICHIGAN HEALTH COUNCIL

April 5, 1959—"Michigan Rural Health Conference" Otto K. Engelke, M.D., Ann Arbor, Sidney E. Chapin, M.D., Dearborn, and Robert G. Lovell, M.D., Ann Arbor

April 12, 1959—"Alcoholism"—(Films—"Out of Orbit" and "Alcohol in the Body")

April 19, 1959—"Heart"—(Film—"Fats and Heart Disease")

April 26, 1959—"Epilepsy and Tuberculosis—(Films—"Something Called Epilepsy" and "Are You Positive")

Ingham Clinic Attracts 275 M.D.s.—Three Michigan doctors of medicine were among the five featured speakers at the 31st annual May clinic of the Ingham County Medical Society. Held at the Olds Hotel, Lansing, May 7 with H. W. Harris, M.D., Ingham county president, presiding, the event highlighted addresses by Frederick C. Swartz, M.D., Lansing, about "Medicine in This Geriatric Age;" Joseph Schaeffer, M.D., Detroit, on "A Physical Medicine and Rehabilitation Service in a General Hospital," and Charles G. Child, III, M.D., Ann Arbor, on "Portal Hypertension."

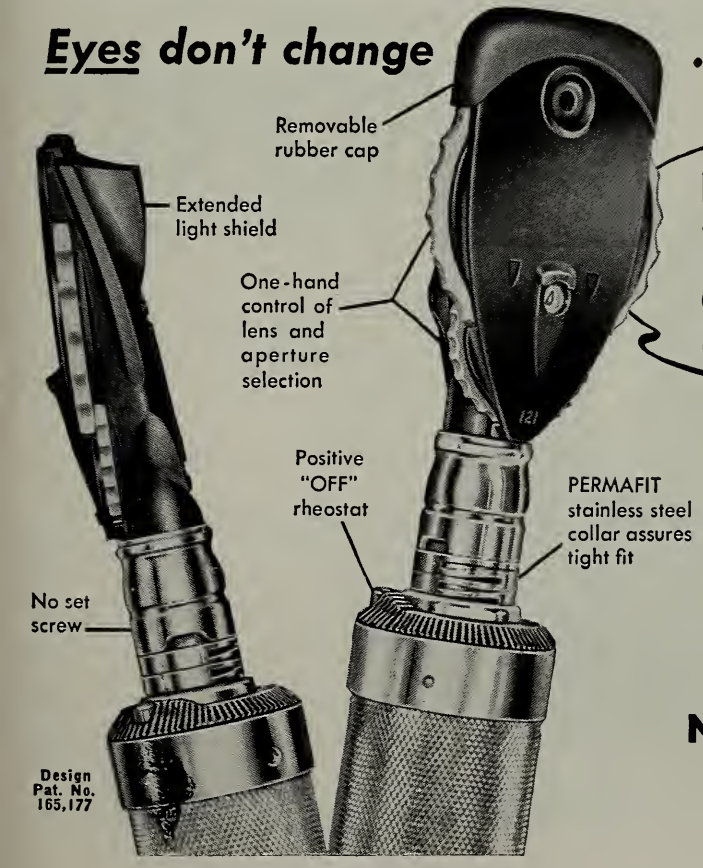
* * *

County medical society officers are invited to take advantage of the Merck Sharp and Dohme Postgraduate Program. Planned and administered by doctors of medicine to facilitate postgraduate medical education, the Merck Sharp and Dohme Program offers to arrange for speakers or to supply funds to support speakers already chosen. Requests for participation in this program should be directed to Frederick K. Heath, M.D., Merck Sharp and Dohme, Broad and Wallace Streets, Philadelphia, Pa.

* * *

The United Cerebral Palsy Research and Educational Foundation announces several fellowship programs and invites applications. Both Clinical Fellowships and Medical Student Fellowships in cerebral palsy are offered, as well as Postdoctoral Fellowships in Brain Research. The Foundation is located at 321 West 44th Street, New York 36, N. Y.

Eyes don't change ... but instruments do



brilliant, all-new WELCH ALLYN OPHTHALMOSCOPE and improved battery handles

From years of research comes this new instrument, distinguished alike by its contemporary good looks, superb optical system and convenience of operation. Like all Welch Allyn instruments, it is designed for long, trouble-free life. No. 121 ophthalmoscope, head only, $38.00.

NOBLE-BLACKMER, INC.

267 W. Michigan Ave., Jackson, Mich.

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

WHAT WE *DO* KNOW ABOUT HEART ATTACKS. By John W. Gofman, M.D., Professor of Medical Physics, University of California, Berkeley. 180 pages. Illus. New York: G. P. Putnam's Sons, 1958. Price, $3.50.

This is an interesting, well-printed and well-illustrated book endeavoring to explain in lay terms what is known today about the cause and control of atherosclerosis and coronary heart disease. It is a fascinating and intelligent discussion of the problem, written to inform the patient and his family of the mechanisms involved in heart attacks and the theory and experimental evidence concerned in their development. It is thought that an informed patient and family will carry out instructions of the physician better if they realize what is being done and why. The book goes into details in an interesting way for the patient of some intelligence, that the physician would never have time to do, were he able to do so.

This book is well worth the attention of every physician who deals with the problem, as suggested reading that he can provide for his patient which answers so many questions that the patient is hungry to know. I heartily recommend it.

R.W.B.

CANCER DIAGNOSIS AND TREATMENT. Edited by John B. Field, M.D., Ph.D., Assistant Clinical Professor of Medicine, University of Southern California School of Medicine, Los Angeles, California; with twenty-eight contributors. Boston, Toronto: Little, Brown & Company, 1959. Price, $18.50.

This handsomely printed, well-bound volume is designed for use by medical students, interns, residents, general practitioners and any physician interested in oncology. The book is a help to the physician in choosing the type of cancer treatment that seems indicated in the specific case. Early and proper choice of treatment for the cancer patient increases that patient's chances of survival significantly, and this book unquestionably aids the physician in this respect.

The book is edited by Dr. John B. Field with the help of twenty-eight well-selected contributors. It is divided into twenty chapters, each written by an authority on the subject. This volume is enthusiastically recommended as an addition to the physician's medical library.

J.W.H.

CHILDBEARING BEFORE AND AFTER THIRTY-FIVE. Biologic and Social Implications. A statistical study of the favored—and the less favored—years for human procreation. A book planned for college students and leaders of society who will show the way; the commonalty will follow, according to their lights. By Dr. Adrien Bleyer, Associate Professor Emeritus of Clinical Pediatrics, Washington University School of Medicine, St. Louis, Missouri. Introduction by Dr. Richard L. Jenkins, Director, Psychiatric Evaluation Project, U. S. Veterans Administration, Washington,



If they need nutritional support . . . they deserve

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B_1)	5 mg.
Riboflavin (B_2)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B_6)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as $CaHPO_4$)	157 mg.
Phosphorus (as $CaHPO_4$)	122 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Manganese (as MnO_2)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

D.C. Commentary by Dr. Douglas P. Murphy, Associate Professor of Obstetrics and Gynecology, Gynecean Hospital Institute, University of Pennsylvania, Philadelphia. New York, Washington, Chicago, Hollywood: Vantage Press, 1959. Price, $2.95.

This is a very well-written, interesting book for lay people as well as medical individuals. The pros and cons of early pregnancies are thoroughly discussed, and the ideal age of eighteen to thirty for pregnancy is substantiated by numerous references and examples. The reasons for malformations, mental defectives and inferior children are explained in detail, with examples and references, together with their frequency as related to the age group of the mother, the age of the father having no bearing on the physical or mental health of the offspring.

This book is especially recommended for individuals who are anticipating marriage or who are engaged in marriage counseling work.

J.R.P.

SURGICAL PATHOLOGY. By Lauren V. Ackerman, M.D., Professor of Surgical Pathology and Pathology, Washington University School of Medicine, St. Louis, Missouri; Surgical Pathologist, Barnes Hospital and Affiliated Hospitals, St. Louis, Missouri; Consultant to the Armed Forces Institute of Pathology; in collaboration with Harvey R. Butcher, Jr., M.D., Associate Professor of Surgery, Washington University School of Medicine, St. Louis, Missouri. 1100 pages. 1114 illustrations. Second edition. St. Louis: The C. V. Mosby Company, 1959. Price, $15.00.

The new second edition of Surgical Pathology has been entirely revised. The book is a handsome hard-bound volume. The chapters are arranged to consider the surgical pathology of a system or organ (diseases of the skin, oral cavity, respiratory tract) and then proceed to specific organs. It contains chapters on bone and joint pathology, central nervous system pathology and diseases of the eye, all of which are often absent in books on general surgical pathology.

The book is profusely illustrated with excellent quality photographs. Some of these pictures demonstrate the iatrogenic diseases which are becoming more common with the increasing use of drugs and chemicals capable of altering cellular metabolism.

This is a book that any surgeon interested in surgical pathology should have in his library.

J.M.H.

MATERNITY: A GUIDE TO PROSPECTIVE MOTHERHOOD. By Frederick W. Goodrich, Jr., M.D. Illustrated by Victor Mays. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Price, $1.75.

This book is a step forward in helping with good prenatal care. It is of greatest value to the new mother and a help to those who are expecting to give birth again. The diagrams of the female anatomy and its changes in the pregnancy state are simple and easy for everyone to understand.

The book outlines and explains the purpose of visiting the doctor early and why he does certain things. It tells the expectant parent when to call the doctor and what



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

questions to ask him on her visits. It further explains her trip to the hospital and what to expect while she is there. The husbands role, her emotional changes, diet and the early care of the new baby are treated simply but in detail.

This book would be of great value as an adjunct to expectant parent courses.

J.R.P.

PHYSICAL DIAGNOSIS. The History and Examination of the Patient. By John A. Prior, M.D., Professor of Medicine, Ohio State University College of Medicine, Columbus, Ohio; Jack S. Silberstein, M.D., Clinical Associate Professor of Medicine, Ohio State University College of Medicine, Columbus, Ohio, and contributors. 193 illustrations. St. Louis: The C. V. Mosby Company, 1959. Price, $7.50.

This is a small, useful, well-printed textbook of physical diagnosis to be recommended primarily for the medical student. It is very well illustrated with both figures and photographs and represents the contribution of various members of the faculty of the Ohio State University College of Medicine.

The book is stripped of many non-essentials and sticks closely to the subject at hand. It is in no sense a textbook of medicine, nor should it be, but emphasizes strictly the procedure of doing a careful history and physical examination.

We are glad to see the deletion of eponyms and the dedication to essentials. The book is highly recommended.

R.W.B.

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

MEDICAL DEPARTMENT, UNITED STATES ARMY, SURGERY IN WORLD WAR II. Volume I. Neurosurgery. Prepared and published under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., MC. Editors for Neurosurgery, R. Glen Spurling, M. D., Barnes Woodhall, M.D. Associate Editor, Elizabeth M. McFetridge, M.A. Washington, D.C.: Office of The Surgeon General. Department of the Army, 1958. Price, $5.00.

Volume I of a two-volume series is attractively bound with a hard cover. It deals with the management and treatment of head injuries in World War II.

Part I of the volume is concerned with the organization methods for the evacuation of head injuries from the time of injury to the arrival at a neurosurgical center. The methods described were used in the Mediterranean and European theatres of operations. Many of the lessons learned here could and should be used in treating mass casualties in military or civilian disasters of the future.

Part II deals with the actual treatment of head injuries from their immediate care at the time of inception on the battle field through the evacuation, neurosurgical techniques employed, types of operations, preoperative and postoperative care and long-term treatments of residuals such as epilepsy, speech defects, replacements with plastics.

The book is well illustrated with pictures, charts and graphs of excellent quality. It contains four appendices of special examination forms, and other material found to be very useful in World War II.

All of the contributors are well-qualified men in this field. Much of the material presented is directly applicable to civilian practice. The book is excellent in that it mentions failures as well as successes. With data and statistics that could be obtained only in a war, this volume is the most complete work in this important field in existence. It should be a valuable addition to any practicing physician's library.

J.M.H.

MEDICAL DEPARTMENT, UNITED STATES ARMY PREVENTIVE MEDICINE IN WORLD WAR II. Volume IV. Communicable Diseases Transmitted Chiefly through Respiratory and Alimentary Tracts. Prepared and published under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., M.C.; Editor for Preventive Medicine, Ebbe Curtice Hoff, Ph.D., M.D.; Assistant Editor, Phebe M. Hoff, M.A. Washington, D. C.: Office of the Surgeon General Department of the Army, 1958.

This is Volume IV of a six-volume set which chronicles the history of Preventive Medicine in the Armed Forces of the United States in World War II. This volume deals with the military experience with those communicable diseases transmitted chiefly through the respiratory and gastrointestinal tracts, chiefly from the public health and military medicine standpoint.

This compendium of military information on the subject has been painstakingly compiled by an imposing panel of public health experts selected by reason of their experience and distinction in their special fields. Ex-

Say you saw it in the Journal of the Michigan State Medical Society

Cough Control

. . . combined with non-specific protein therapy

USE AQUEOUS GUAIAFAGE

rapidly effective in all upper-respiratory infection where ventilation by expectoration is necessary

available only in 30 cc vials

Meyer and Company, Inc. **Detroit, Michigan**

tensive statistical material and charts are presented. An introduction concerning general aspects of preventive medicine in World War II adds considerable interest in factual information.

The book is recommended as a valuable source book on the subject for the institutional medical library.

R.W.B.

CARDIAC ARREST AND RESUSCITATION. By Hugh E. Stephenson, Jr., M.D., Professor and Chairman, Department of Surgery, University of Missouri School of Medicine, Columbia, Missouri; Chief of Surgical Service, University of Missouri Hospitals; Associate-in-Charge, Cardiovascular Program, State Crippled Children's Service, University of Missouri; Consultant, Whiteman Air Force Base Hospital; Markle Scholar, John and Mary R. Markle Foundation, 1954-1959. St. Louis: The C. V. Mosby Company, 1958. Price, $12.00.

This is an up-to-date, carefully planned, and well-organized treatise on the subject of cardiac arrest and resuscitation which is the result of some eight years of dedicated effort. Logical development and presentation of the subject, the etiology, management, prevention, and prognosis make it a useful and readable compendium on this timely subject.

The chapter on management includes complete instructions for emergency thoractomy and cardiac massage and places responsibility for such on the nearest available physician regardless of specialty or training. The folly of hesitation to institute such treatment once arrest or fibrillation have been thought to occur is emphasized. Closed chest needle puncture is considered ill advised.

Medicolegal aspects of the procedure are discussed by proper authority.

Detailed care of the post-resuscitative patient as well as preventive measures are discussed, and a chapter on elective arrest for open heart surgery is included.

An extensive bibliography is appended.

This is a practical book, well-written, interesting to read, and well-illustrated, satisfying a genuine need. It should be a part of the hospital library.

R.W.B.

HEY GROVES' SYNOPSIS OF SURGERY. Edited by Sir Cecil Wakeley, Bt., K.B.E., C.B., LL.D., M.Ch., D.Sc., F.R.C.S., F.R.S.E., F.A.C.S., F.R.A.C.S., Past President of the Royal College of Surgeons of England; Fellow of King's College, London; Consulting Surgeon to King's College Hospital and Belgrave Hospital for Children; Senior Surgeon, Royal Masonic Hospital; Consulting Surgeon to the Royal Navy; Examiner in Surgery to the University of Liverpool; formerly Examiner in Surgery to the Universities of Bristol, Cambridge, Durham, Glasgow, London, and Sheffield; and to the National Universities of Ireland and Wales. Fifteenth edition. Illustrated. Baltimore: The Williams and Wilkins Company, 1958. Price, $8.50.

This clothbound handbook of surgery in its fifteenth edition is apparently intended for students reviewing the general subject of surgery. The author has attempted to

bring the book up to date, and he includes some of the recent advances in vascular surgery and some of the newer antibiotics. However, there is a lag of about five years in the use of prosthetic devices in vascular surgery and in treatment with the more recent antibiotics.

The book is set up to give the reader a panoramic view of the entire field of surgery and is necessarily rather brief as a result. The material is presented in a practical and logical form so that it is possible to follow through all diseases in essentially the same way: etiology, distribution, pathology, clinical signs, differential diagnosis and treatment. The sketches are clear, brief, to the point, and there are a number of color plates demonstrating various anatomical relationships.

This book is probably to be used in preparing for a college or board examination rather than as a reference book, and should be very popular with students. It could be of value to anyone organizing the vast amount of material found in present-day surgery. It is a book, however, that many men would not keep on their book shelves because it is too brief and is merely an outline covering all the aspects of the entire field of surgery.

J.M.H.

THE SEDIMENTATION RATE OF HUMAN ERYTHROCYTES. Its Basic Concepts—Its Value as a Differential Diagnostic Agent—Its Multiple Clinical Applications. By Frank Wright, M.D., F.A.C.P., F.A.S. 43 pages. New York: Vantage Press, 1959. Price, $2.50.

This is a small volume discussing primarily the sedimentation rate of human erythrocytes and the many implications derived therefrom. It is a rather rambling dissertation, whose "raison d'etre" is a bit difficult to understand. Embodied in the discussion is a plea against further atomic detonation.

R.W.B.

A definite diagnosis of bronchiogenic cancer cannot be made on a histological basis.

* * *

Mikulicz's syndrome is characterized by symmetrical enlargement of the salivary and lachrimal glands.

* * *

In cases of suspected pulmonary tuberculosis where no tubercle bacilli could be demonstrated by smears, cultures or animal inoculations, cancer must be strongly suspected and cytological examinations carried out.

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Write: Box 9, 606 Townsend Street, Lansing, Michigan.

FOR SALE—Physician's practice in community near Lansing. Income runs $25,000-$40,00, according to amount of work desired. Modern fully equipped offices with good nurse and office girl; price includes real estate. Excellent terms available. Call Guernsey, La-Noble Realty, 1516 E. Michigan, IV 2-1637, evenings IV 9-0814, Lansing, Michigan.

LOCATION DESIRED—Dentist, eight years' experience in all phases of dentistry, wishes to relocate in medical building or clinic in lower peninsula. Prefers to rent space. Character references available. Write Box No. 14, 606 Townsend Street, Lansing 15, Michigan.

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

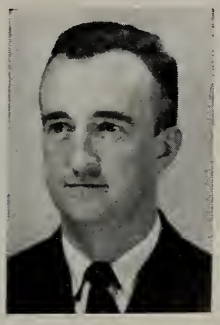
THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 JULY, 1959 NUMBER 7

Contributors to This Issue



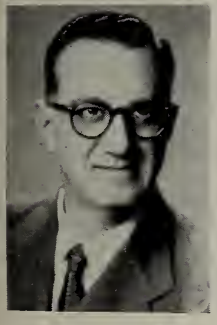
A. T. Aitken, M.D.



W. H. Beierwaltes, M.D.



C. Mopper, M.D.



J. R. Rogin, M.D.



J. B. Tipton, M.D.



P. A. Wade, M.D.

Table of Contents

Institutionalized Cretins in the State of Michigan
William H. Beierwaltes, M.D., Edward A. Carr, Jr., M.D., Govind Raman, M.B., B.S., Norma R. Spafford, A.B., Richard A. Aster, M.D., and *George H. Lowrey, M.D.* 1077

Metabolic Aspects of the Aging Process
John Burke Tipton, M.D. 1096

Michigan State Medical Society
Annual Speakers, 1959 1101
Past Presidents 1102
Outline of 1959 Assemblies and Section Speakers 1103
Annual Session Information 1104
Program of Assemblies and Sections 1108

The Present Status of Intervertebral Disc Surgery
Alexander T. Aitken, M.D., F.A.C.S. 1121

Fractures of the Femur
Preston A. Wade, M.D. 1128

Estrogen Therapy of Acne
Coleman Mopper, M.D., and *James R. Rogin, M.D.* 1135

The American Academy of Medicine
Michigan Chapter Meeting of March 10, 1959 1140

Editorial:
The Time is Ripe 1142
Senior Citizens 1143
It Can Happen Here 1144
"The Big Lie" 1144
What Does Blue Shield Really Mean to Us? 1145
Elections 1145

President's Page:
He'll Be There 1146

L. Fernald Foster, M.D 1147

How to Handle an Avalanche—Michigan 1151

To Serve You Better—
Begin New MSMS Headquarters 1152

Annual Committee Reports 1156
Michigan's Department of Health 1162
In Memoriam 1164
News Medical 1168
The Doctor's Library 1189

Heart Beats 1028
College Possible for the Blind 1032
PR Report 1037
You and Your Business 1044
AMA Washington Letter 1060
Cancer Comment 1066

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 JULY, 1959 NUMBER 7

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. ALLEN PAYNE, M.D.....Grand Rapids

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LEFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1964
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice Speaker*		Detroit
D. BRUCE WILEY, M.D.	*Secretary*		Utica
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
W. M. LEFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
W. W. Babcock, M.D., Detroit.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
W. D. Barrett, M.D., Detroit.....1960
R. L. Novy, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

O. J. Johnson, M.D., Bay City.....1959
E. F. Sladek, M.D., Traverse City.....1959
Wm. Bromme, M.D., Detroit.....1960
L. R. Leader, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.....Detroit



Prompt 4 way check of DIARRHEA

POMALIN™ Liquid

New **RASPBERRY FLAVOR**

and pink color make POMALIN pleasant to take and appealing to both children and adults.

- ✓ Curbs excessive peristalsis
- ✓ Adsorbs toxins and gases
- ✓ Soothes inflamed mucosa
- ✓ Provides intestinal antisepsis

FORMULA:

Each 15 cc. (tablespoon) contains:

Sulfaguanidine	2 Gm.
Pectin	225 mg.
Kaolin	3 Gm.
Opium tincture	0.08 cc.
(equivalent to 2 cc. paregoric)	

SUPPLIED:

Bottles of 16 fl. oz.
Exempt Narcotic.
Available on Prescription Only.

DOSAGE:

ADULTS: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

CHILDREN: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

Winthrop LABORATORIES
New York 18, N. Y.

COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY
ALLEGAN	A. P. Brachman, M.D., Allegan	H. E. Schneiter, M.D., 111 Locust St., Allegan
ALPENA-ALCONA-PRESQUE ISLE	S. L. Cohn, M.D., Alpena	Harold Kessler, M.D., 312 E. Chisholm, Alpena
BARRY	T. W. Myers, M.D., Nashville	E. L. Phelps, M.D., 118 W. Walnut St., Hastings
BAY-ARENAC-IOSCO	G. L. Hagelshaw, M.D., Bay City	H. T. Knobloch, M.D., 1102 Columbus Ave., Bay City
BERRIEN	F. A. Kennedy, M.D., Benton Harbor	R. L. Landgraf, M.D., 122 Grant St., Niles
BRANCH	H. C. Mitchell, M.D., Coldwater	J. C. Heffelfinger, M.D., 292 E. Chicago, Coldwater
CALHOUN	D. L. Finch, M.D., Battle Creek	S. A. Yannitelli, M.D., 1331 W. Michigan Ave., Battle Creek
CASS	J. K. Hickman, M.D., Dowagiac	G. E. Loupee, M.D., 110 W. Division, Dowagiac
CHIPPEWA-MACKINAC	E. S. Rhind, M.D., Sault Ste. Marie	T. B. Mackie, M.D., 300 Court St., Sault Ste. Marie
CLINTON	A. C. Henthorn, M.D., St. Johns	B. C. Cook, M.D., Westphalia
DELTA-SCHOOLCRAFT	O. S. Hult, M.D., Gladstone	N. L. Lindquist, M.D., 205 S. Tenth St., Escanaba
DICKINSON-IRON	D. T. Anderson, M.D., Iron Mountain	R. D. Cecconi, M.D., 110 W. "B" St., Iron Mountain
EATON	A. W. Myers, M.D., Potterville	J. L. Riley, M.D., 201½ S. Cochran, Charlotte
GENESEE	J. E. Livesay, M.D., Flint	J. B. Rowe, M.D., 202 Paterson Bldg., Flint
GOGEBIC	D. L. Davidson, M.D., Bessemer	W. H. Wacek, M.D., Ironwood
GRAND TRAVERSE-LEELANAU-BENZIE	J. W. Hall, M.D., Traverse City	W. W. Cline, M.D., 436 W. Front St., Traverse City
GRATIOT-ISABELLA-CLARE	L. R. Wickert, M.D., Mt. Pleasant	P. H. Ringer, Jr., M.D., 314 S. Brown, Mt. Pleasant
HILLSDALE	J. A. MacNeal, M.D., Hillsdale	F. M. Wessels, M.D., Hillsdale
HOUGHTON-BARAGA-KEWEENAW	F. E. Kolb, M.D., Calumet	M. S. Williams, M.D., 1412 E. Houghton, Houghton
HURON	P. R. Turner, M.D., Harbor Beach	R. C. Dixon, M.D., Pigeon
INGHAM	H. W. Harris, M.D., Lansing	W. D. Cheney, M.D., 1215 E. Michigan, Lansing
IONIA-MONTCALM	J. G. Haarer, M.D., Grand Rapids	C. E. Stevens, M.D., Greenville
JACKSON	J. B. Meads, M.D., Jackson	H. W. Porter, M.D., 505 Wildwood, Jackson
KALAMAZOO	J. G. Malone, M.D., Kalamazoo	R. D. Warnke, M.D., 909 Am. Nat'l Bank Bldg., Kalamazoo
KENT	J. W. Logie, M.D., Grand Rapids	G. A. Mulder, M.D., 26 Sheldon Ave. S.E., Grand Rapids
LAPEER	T. K. Buchanan, M.D., Imlay City	J. R. Doty, M.D., 315 Clay St., Lapeer
LENAWEE	J. W. Berghuis, M.D., Adrian	R. T. Hammel, M.D., 401 E. Chicago Blvd., Tecumseh
LIVINGSTON	R. F. Hauer, M.D., Fowlerville	R. M. Duffy, M.D., 250 E. Main St., Pinckney
LUCE	R. E. Gibson, M.D., Newberry	R. P. Hicks, M.D., 210 W. John St., Newberry
MACOMB	D. L. Rousseau, M.D., Mt. Clemens	Peter V. Kane, M.D., 67 Cass, Mt. Clemens
MANISTEE	Ruth E. Lalime, M.D., Bear Lake	K. G. Rosenow, M.D., 503 Seventh St., Manistee
MARQUETTE-ALGER	L. W. Howe, M.D., Marquette	Louis Rosenbaum, M.D., 540 E. Division, Ishpeming
MASON	J. R. Carney, M.D., Ludington	A. F. Boon, M.D., 203 N. Ferry St., Ludington
MECOSTA-OSCEOLA-LAKE	J. L. Tyson, M.D., Big Rapids	J. E. Walters, M.D., 1014 S. State St., Big Rapids
MENOMINEE	Arthur Gonty, M.D., Menominee	G. H. Hopson, 100 Tenth St., Menominee
MIDLAND	J. A. Bernier, M.D., Sanford	B. B. Holder, M.D., Dow Chemical Co., Midland
MONROE	W. A. Meier, M.D., Monroe	R. A. Frary, M.D., 423 E. Elm, Monroe
MUSKEGON	L. L. Loder, M.D., Muskegon	H. C. Tellman, M.D., 706 Hackley Union Bank Bldg., Muskegon
NEWAYGO	Jess DeYoung, M.D., Fremont	R. W. Emerick, M.D., Gerber Mem. Hosp., Fremont
NORTH CENTRAL	L. F. Hayes, M.D., Gaylord	Paul Dosch, M.D., Grayling
NORTHERN MICHIGAN	R. G. Martin, M.D., Charlevoix	T. R. Kirk, M.D., Burns Clinic, Petoskey
OAKLAND	R. R. Wessels, M.D., Birmingham	J. A. Read, M.D., 175 E. Hickory Grove Rd., Bloomfield Hills
OCEANA	W. G. Robinson, M.D., Hart	W. G. Robinson, M.D., 219 State St., Hart
ONTONAGON	Ross Vilardo, M.D., White Pine	W. F. Strong, M.D., Ontonagon
OTTAWA	W. S. Kuipers, M.D., Holland	P. J. DeVries, M.D., 214 Washington, Grand Haven
SAGINAW	D. V. Sargent, M.D., Saginaw	A. B. Thompson, M.D., 2144 Ottawa, Saginaw
ST. CLAIR	A. C. Gholz, M.D., Port Huron	G. E. Mohney, M.D., 311 Pine St., Port Huron
ST. JOSEPH	J. H. O'Dell, M.D., Three Rivers	C. G. Porter, M.D., 226 East St., Three Rivers
SANILAC	E. W. Blanchard, M.D., Deckerville	M. H. Jayson, M.D., Marlette
SHIAWASSEE	N. F. Bach, M.D., Owosso	J. F. MacGregor, M.D., 113 E. Williams, Owosso
TUSCOLA	L. L. Savage, M.D., Caro	E. N. Elmendorf, M.D., Vassar
VAN BUREN	J. A. Kleber, M.D., South Haven	A. E. Parks, M.D., Lawton
WASHTENAW	D. A. Campbell, M.D., Ann Arbor	G. H. Bauer, M.D., 2015 Manchester Rd., Ann Arbor
WAYNE	M. R. Weed, M.D.	H. M. Fuller, M.D., 1010 Antietam, Detroit
WEXFORD-MISAUKEE	M. D. Bentley, M.D., Cadillac	Benjamin Koepke, M.D., McBain

The results of administering Delalutin before the 12th week of gestation to 82 women with habitual abortion were reported recently by Reifenstein.[1] Every patient had experienced at least three consecutive abortions immediately preceding the treated pregnancy. More than 68% of these women were delivered successfully and uneventfully following Delalutin therapy.

Boschann,[2] in a study of pregnancies with threatened abortion, found that:

37% of 73 pregnancies were carried to term without progestational therapy
64% of 42 pregnancies were salvaged by progesterone
83% of 73 pregnancies were salvaged by Delalutin

Eichner,[3] found that with Delalutin fetal salvage of infants below term weight (1000 to 2000 gm.) was significantly improved.
108 (76%) of 142 babies of this birth weight survived without progestational therapy.
16 (100%) of 16 babies of this birth weight survived with Delalutin therapy.
A comparison study was made of a group of repeated aborters treated with Delalutin, and a group with a similar history treated with bed rest and sedation.[4] Pregnancy salvage with Delalutin was twice that of the control group. Delalutin was found to be "highly active," well-tolerated and long-acting.

Delalutin offers these advantages over other progestational agents:

- longer-acting and more sustained therapy
- more effective in producing and maintaining a completely matured secretory endometrium
- no androgenic effect
- more concentrated solution requires injection of less vehicle
- unusually well-tolerated, even in large doses
- requires fewer injections
- low viscosity makes administration easier

DELALUTIN is also potent and safe therapy for: threatened abortion; postpartum after-pains; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated with genital malignancy; infertility with inadequate corpus luteum function; production of secretory endometrium and desquamation during estrogen therapy; premenstrual tension; dysmenorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

Administration and Dosage: Because of its low viscosity, Delalutin may be administered with a small gauge needle (deep intragluteal injection). Complete information on administration and dosage is supplied in the package insert.

Supply: Delalutin is available in vials of 2 and 10 cc., each cc. containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

References: 1. Reifenstein, E. C., Jr.: *Annals N. Y. Acad. Sci.* 71:762 (July 30) 1958. 2. Boschann, H-W.: *ibid.*, p. 727. 3. Eichner, E.: *ibid.*, p. 787. 4. Hodgkinson, C. P.; Igna, E. J., and Bukeavich, A. P.: *Am. J. Obst. and Gyn.* 76:279, 1958.

SQUIBB *Squibb Quality—the Priceless Ingredient*

'Delalutin'® is a Squibb trademark

Heart Beats

1959-1960 GRANTS FOR HEART RESEARCH ANNOUNCED

Donald S. Smith, M.D., President of the Michigan Heart Association, has announced the various grants awarded by the Research Committee of the Association. More than $313,000 has been allocated for thirty-five grants-in-aid, fifteen summer fellowships and two Dean's Funds by the Michigan Heart Association for the fiscal year 1959-1960.

Grants-in-aid totaling more than $231,000 have been made to the following responsible investigators:

MARION I. BARNHART, Ph.D., *Wayne State University*
Cellular Sites for Synthesis of Proteins Important in Blood Coagulation

LLOYD M. BARR, Ph.D., *University of Michigan*
Electromechanical Activity and Responsiveness of Vascular Smooth Muscle from Normotensive and Hypertensive Animals

ALEXANDER BARRY, Ph.D., *University of Michigan*
Normal and Abnormal Development of the Cardiovascular System

WILLIAM T. BEHER, Ph.D., *Edsel B. Ford Institute*
1. Experimental Atherosclerosis
2. Metabolism of Cholesterol
3. Clinical Study of the Control of Hypercholesterolemia

PEDRO BLAQUIER, M.D., *University of Michigan*
Crosscirculation of Normotensive and Renal Hypertensive Rats: A Direct Test for Circulating Pressor Materials as a Cause of Hypertension

JAMES B. BLODGETT, M.D., *Grace Hospital*
Studies of Satisfactory Means of Entrance and Exit Through Walls of the Great Vessels and the Heart, Including Aortic Blood Infusion Method of Cardiac Inflow Interruption, and Problems of Methods of Control of Valvular Regurgitation

A. J. BOYLE, M.D., *Wayne State University*
Plasma Colloid Stability in Normal and Atherosclerotic Subjects

T. M. BRODY, Ph.D., *University of Michigan*
Cardiac and Vascular Effects of the Chlorinated Hydrocarbons

EDWARD J. CAFRUNY, Ph.D., *University of Michigan*
Comparative Studies on the Renal Effects of Diuretics

GEORGE O. CLIFFORD, M.D., *Wayne State University*
Mechanism of the Coagulation Abnormalities Induced by Hyperlipemia and Its Modification by Certain Agents

F. D. DODRILL, M.D. (I) *Harper Hospital*
Mechanical Heart-lung project—With Special Investigation of the Use of High Energy Phosphates for Cardiac Asystole; In addition Implantation of Heart Valve (II) Synthetic Valve Project

IVAN F. DUFF, M.D., *University of Michigan*
Investigation of the Mechanism of Blood Coagulation with Special Reference to the Problems of Thromboembolic Disease

HAROLD F. HARDMAN, M.D., *University of Michigan*
An Analysis of the Seasonal Variation of the Turtle Heart to Theophylline Stimulation

HARPER K. HELLEMS, M.D., *Wayne State University*
A Study of Coronary Blood Flow and Myocardial Metabolism in the Human Subject and in the Experimental Animal

SIBLEY HOOBLER, M.D., *University of Michigan*
Arteriosclerosis and Hypertension

JOSEPH J. JASPER, Ph.D., *Wayne State University*
A Study of Serum Surface Tension in Atherosclerosis; A Continuation of the Present Study

SHIRLEY A. JOHNSON, Ph.D., *Henry Ford Hospital*
The Effect of the Administration of Various Oral Anticoagulants and Vitamin K preparations on the Coagulation Mechanisms, i.e., on the plasma and serum levels of prothrombin and prothrombin derivatives

CHARLES G. JOHNSTON, M.D., *Wayne State University*
Laboratory and Clinical Study of Methods for Repair of Cardiac Defects

JON J. KABARA, Ph.D., *University of Detroit*
Simultaneous Use of Tritium and Carbon-14 Metabolites to Study the Dynamics of Lipid Metabolism in Man

SIDNEY D. KOBERNICK, M.D., *Sinai Hospital*
The Pathogenesis of the Effect of Exercise on Experimental Cholesterol Atherosclerosis

CONRAD R. LAM, M.D., *Henry Ford Hospital*
Experimental Cardiovascular Surgery

BENJAMIN M. LEWIS, M.D., *Wayne State University*
Pulmonary Capillary Bed in Cardio-Respiratory Disease

JOHN S. MEYER, M.D., *Wayne State University*
Pathogenesis and Treatment of Hypertensive Encephalopathy. A study of the Experimental Production of Hypertensive Encephalopathy and the Response to Treatment

YOSHIKAZU MORITA, M.D., *Wayne State University*
Fluid and Electrolyte Metabolism in Cardiac and Renal Disease. A Double-Blind Study of the Value of Certain Anti-Hypertensive Drugs

JAN NYBOER, M.D., *Harper Hospital*
Evaluation of Ultra-Low Frequency Ballistocardiography and Electrical Impedance Plethysmograph

HERBERT J. ROBB, M.D., *Wayne State University*
Study of Microscopic Vascular Dynamics In Various Forms of Shock and Study of Vascular Changes which Occur with Administration of Drugs which Change the Caliber of Vessels and Affect Their Blood Flow

PAUL A. RONDELL, Ph.D., *University of Michigan*
Electrolyte Composition of Vascular Smooth Muscle and Its Relationship to Contractile Activity

W. H. SEEGERS, Ph.D., *Wayne State University*
Blood Coagulation: Purification of Inhibitors and Mechanisms of Their Action

HERBERT SLOAN, M.D., *University of Michigan*
Continued Studies on Extracorporeal Circulation

D. EMERICK SZILAGYI, M.D., *Henry Ford Hospital*
An Investigation of the Use of Vascular Substitutes in the Replacement of Arterial Segments

NORMAN S. TALNER, M.D., *University of Michigan*
Evaluation of Pulmonary Function in Patients With Congenital Heart Disease Prior to and Following Reparative Cardiac Surgery Utilizing Extra-corporeal Circulation

JOHN M. WELLER, M.D., *University of Michigan*
Investigation of Abnormalities of Sodium and Potassium Metabolism in Hypertension

(Continued on Page 1032)

ISTOCORTIN ANTIHISTAMINE COMBINATION

min®

Steroid-Antihistamine Compound LEDERLE



(lung x 65, injected with carbon-gelatin)

comments by clinical investigators:

"I would conclude that ARISTOMIN *is truly a worthwhile aid in treating allergic problems."*[1]

"The results have been uniformly good. The patients have stated that their symptoms were very much relieved. I have not encountered any side reactions except from one patient, who complained of some drowsiness, which I attribute to the antihistamine."[2]

"In general . . . it [ARISTOMIN] *is an excellent product. Over-all, it appears to be more effective than any simple antihistamine we have used. Despite the fact that we employed it in the treatment of a variety of nonselected individuals and problems, we had excellent and good results in 25 of the 39 patients."*[3]

Lederle

DERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

GRANTS FOR HEART RESEARCH ANNOUNCED

(Continued from Page 1028)

ROBERT F. ZIEGLER, M.D., *Henry Ford Hospital*
Continuation of the Measurement and Determination of the Significance of the Areas Inscribed Under the Various Electrocardiographic Deflections, Particularly in Multiple Unipolar Precordial Leads, Principally for the Better Detection of Increased Cardiac Chamber Work and Size

WOLF W. ZUELZER, M.D., *Children's Research Center of Michigan*
Rapid Identification of Group A Streptococcus from Throat Swabs; Development of Method; Application in a Correlated Study in Which Results are Related to Serologic Tests in Rheumatic Fever, Nephritis and Pharyngitis

Applications for a Grant-in-Aid for the academic year 1960-1961 will be accepted through December 15, 1959. The necessary application form may be secured from the medical director Michigan Heart Association, Doctor's Building. 3919 John R, Detroit 1, Michigan.

AMERICAN HEART ASSOCIATION GRANTS-IN-AID

In addition to these research awards, the Michigan Heart Association shares in the national research program of the American Heart Association. Five scientists have received grants totaling $35,970 to conduct research in Michigan on heart and blood vessel diseases, Dr. Smith announced. The following scientists received American Heart Association awards: David F. Bohr, University of Michigan, Medical School; John M. Weller, University of Michigan, Medical School; Walter S. Wilde, University of Michigan, Medical School; Jan Nyboer, Harper Hospital; Thomas P. Singer, Edsel B. Ford Institute for Medical Research, Henry Ford Hospital.

These grants are among 244 totaling $1,765,233 awarded to scientists throughout the country under the national research support program of the American Heart Association and its affiliates. With the new awards, the total channeled into heart research during the past decade by the Association and its affiliates stands at more than $44,000,000.

DEAN'S FUNDS AND MEDICAL STUDENT FELLOWSHIPS CONTINUED

The Dean's Funds, a grant of $30,000 each available to the Deans of medical schools at Wayne State University and the University of Michigan, were created by the Michigan Heart Association to enable the Deans to retain promising young men in academic medicine who might be tempted to leave for private practice because of current academic salary inadequacies. Both funds have been renewed for the current year.

The Medical Student Vacation Research Fellowship program has been expanded for the summer of 1959 to twenty-five fellowships compared to fifteen last summer.

College Possible for the Blind

Blind students face special problems, but they also have special help in solving them, credit for which goes to Recording for the Blind, Inc., which celebrated its eighth anniversary during "Education for the Blind Week" in May, 1959.

Since its start, Recording for the Blind has opened vast new opportunities for blind persons by providing recorded textbooks, free of charge, for thousands of college students.

The gift-supported organization grew out of a committee formed to record books for blinded World War II veterans. It gained national scope in 1951, and now has recording centers in thirteen cities, including Detroit.

Detroit's unit is housed on the third floor of Wayne State University's Kresge Science Library. Dr. Clarence B. Hilberry, WSU president, served on a committee of leading educators to support "Education for the Blind Week."

Students needing books request recordings through the national office, 121 East 58th Street, New York. Work is allocated to the thirteen units, which find volunteer readers and record the books on tape. The tapes go back to the national office where they are transferred to disc records. The current catalogue lists about 2,000 titles.

Blind students also get help from other sources. For example, at Wayne State there are eighteen tape recorders contributed by Detroit-area Lions Clubs.

Students, faculty members and others record texts needed by blind students for intensive study at home. Volunteers also read directly to blind students.

PR REPORT



Leading newspapermen and physicians interested in better medical-press relations participated in the "Conference on Medical Writing for the Mass Media" at Michigan State University. Two of the speakers were Austin Smith, M.D., (1) president, Pharmaceutical Manufacturers Association, and Charles L. Hudson, M.D., (2) past president, Ohio State Medical Society.

MSMS CONFERENCE SEES MEDICAL WRITER AND DOCTOR AS PARTNERS IN PUBLIC SERVICE

"The prime consideration in press-medical relations is that both the medical writer and the doctor are serving the public."

That statement by Kenneth H. Johnson, M.D., speaker, House of Delegates, MSMS, was the foundation for the Conference on Medical Writing for the Mass Media this spring at East Lansing.

With that undergirding, the conference then set about to seek ways to improve relationships between the press and medicine.

Sponsored by the MSMS and the Michigan State University School of Journalism, the conference attracted representatives of the major Michigan newspapers, delegates from several county medical societies, faculty and student representatives from universities of the state.

Doctor Johnson, in his keynote address, pointed out that "The medical profession is sincerely trying to understand news operations." He reported that county societies have press committees, joint conferences with media people, and county meetings which generally are open to the press; and that the state society invites media people to its meetings, conducts news rooms at state meetings, encourages medical writing courses and conferences and has a media guide to help county groups.

Held in conjunction with the conference was the First Annual Charles M. Yates Lecture, sponsored by the Michigan Tuberculosis Association and given by Charles L. Hudson, M.D., past president, Ohio State Medical Society. Doctor Hudson declared that "Doctors need to realize their obligation to the public and need to help the public develop an appreciation of quality in medical care. Doctors and science writers must have an opportunity to meet and talk, to promote understanding of each other's problems, to generate respect each for the other and to recognize the rights of individuals, writers, doctors and the public."

Austin Smith, M.D., president, Pharmaceutical Manufacturers Association, in his noon luncheon speech, made an appeal that "Medicine and the Press should work together to counteract the decreasing supply of manpower in the medical field."

Jack Pickering, science editor, *Detroit Times*, discussed "Medical Writing as the Science Writer Sees It;" C. W. Muehlberger, director, State Crime Detection Laboratory, suggested "What I Think Every Science Writer Should Know;" and Jack McLeod, Research Center, University of Michigan, summarized a research survey in speaking about "The Public's Interest in Medicine." Panel members, who weighed "What Is Good Medical Coverage" were John L. Bach, director of press relations for AMA; Roy Bruner, Science Editor, Toledo Blade; Merle Oliver, Science Editor, *Detroit News,* and Jean Pearson, Science Editor, *Detroit Free Press.*

Presiding at portions of the Kellogg Center conference were Fred Siebert, dean of the M.S.U. School of Journalism; James Stokley, professor of science writing, School of Journalism; and Hugh W. Brenneman, public relations counsel, MSMS.

The Public Sees "The Family Doctor"

In the interest of public education, a special MSMS television program, "The Family Doctor", was presented to southwestern Michigan residents over WKZO-TV on April 4.

This was the second of four planned productions of "The Family Doctor." The first was performed in Detroit during the Annual Session in 1958. The other two shows are scheduled for other out-state areas.

The WKZO-TV program was produced by the Michigan State Medical Society, the Michigan Health Council, the Kalamazoo Academy of Medicine and the medical societies of Allegan, Berrien, Calhoun and Van Buren counties.

Cooperating in the project was the Fetzer Broadcasting Company which carried the program as a public service.

For the special one-hour show, the studio was transformed into a doctor's office by use of equipment provided by the Ferndale Surgical Supply Company and Detroit X-ray, Inc.

Two minor surgical procedures, an obstetrical examination, an orthopedic demonstration and a physical examination were presented during the telecast.

Paul M. Fuller, M.D., Kalamazoo, provided the running scientific commentary, and Gordon Anderson, of WKZO-TV, acted as announcer-moderator during the production.

Participants in "The Family Doctor" were Paul M. Fuller, M.D., Kalamazoo; Keith S. Wemmer, M.D., Battle Creek; Peter Brachman, M.D., and Harry E. Schneiter, M.D., Allegan; Homer H. Stryker, M.D., Kalamazoo; F. Alan Kennedy, M.D., Benton Harbor; Bert Diephuis, M.D., South Haven; Miss Marjorie Kenyon, medical technologist, and Miss Mary Ann Asbury, of the Kalamazoo Medical Assistants Society.



Homer H. Stryker, M.D., Kalamazoo, is assisted by Dr. School, Senior Resident, in performing an orthopedic procedure which involved putting a plaster cast on a baby born with a club foot.



Keith S. Wemmer, M.D., Battle Creek, conducted the physical examination performed in the show. Here Doctor Wemmer is shown taking an EKG. He is being assisted by Medical Assistant Mary Ann Asbury, Kalamazoo.

PAMPHLET OF THE MONTH

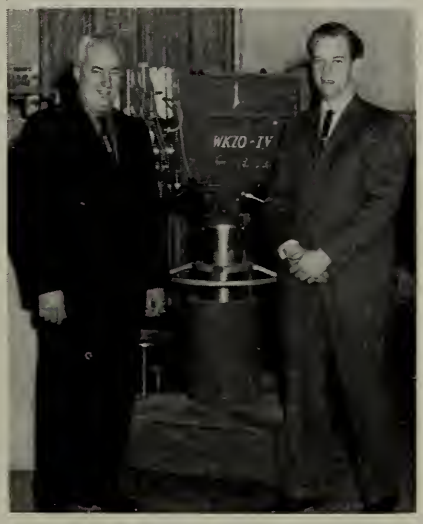
The Pill That Could Change America just published by the American Medical Association is an up-to-date review of socialized medicine in the world today. In addition to the text, the 28-page booklet contains many reprints of editorial opinions from newspapers both here and abroad. For copies, write PR LIBRARY, Michigan State Medical Society, Box 539, Lansing 3.



The television studio is a busy place at "Air Time". This is how the studio of WKZO-TV station looked at 4:01 p.m., April 4, when "The Family Doctor" was just getting under way.



Harry E. Schneiter, M.D., Allegan, assisted by his office nurse, Lucy Tagg, prepared the patient for the removal of a lipoma.



Paul M. Fuller, M.D., Kalamazoo, provided the medical commentary during the program. Gordon Anderson at right, WKZO-TV announcer, was the lay moderator.



F. Alan Kennedy, M.D., Benton Harbor, assisted by his office nurse and wife, performs the surgical removal of an ingrown toenail on a patient.

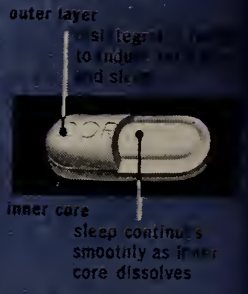


Bert Diephuis, M.D., South Haven, is demonstrating a partial obstetrical examination. The fetal heartbeat was heard by means of a Heart Monitor supplied by Allen Electric Company of Kalamazoo.

For those patients who compla

carries your patients through the middle of the night





Each Nebralin timed-release tablet contains:

Dorsital* 9
Warning: May be habit form

Mephenesin 4
*Dorsey brand of pent

CAUTION: Federal law prohibits dispensing without prescription

Dosage: One or two tablets before retiring.

■ Exhibits unusual analgesic properties, different from those of any other drug ■ Specific and superior in relief of SOMAtic pain ■ Modifies central perception of pain without abolishing natural defense reflexes ■ Relaxes abnormal tension of skeletal muscle

SOMA™

N-isopropyl-2-methyl-2-propyl-1, 3-propanediol dicarbamate

■ More specific than salicylates ■ Less drastic than steroids

■ More effective than muscle relaxants

SOMA has an unique analgesic action. It apparently modifies central pain perception without abolishing peripheral pain reflexes. SOMA is particularly effective in relieving joint pain. Patients say that they feel better and sleep better with SOMA than with any previously used analgesic, sedative or relaxant drug.
SOMA also relaxes muscle hypertonia, with its stresses on related joints, ligaments and skeletal structures.

ACTS FAST. Pain-relieving and relaxant effects start in 30 minutes and last 6 hours.

NOTABLY SAFE. Toxicity of SOMA is extremely low. No effects on liver, endocrine system, blood pressure, blood picture or urine have been reported. Some patients may become sleepy on high dosage.

EASY TO USE. Usual adult dose is one 350 mg. tablet 3 times daily and at bedtime.

SUPPLIED: Bottles of 50 white sugar-coated 350 mg. tablets.
Literature and samples on request.

WALLACE LABORATORIES, NEW BRUNSWICK, N. J.

You and Your Business

AMERICAN MEDICAL EDUCATION FOUNDATION

Here is a new suggestion for donations to the American Medical Education Foundation Fund, and it comes from Hawaii:

Min Hin Li, M.D., chairman for the Fund in Hawaii, sent two batches of predated checks, twelve of them to cover the year's donations, to be cashed as they become due. The plan is a welcome one to those physicians who have asked that a method be available for deferred payments on either a monthly or quarterly basis.

The checks, written for twelve months or four quarters in advance, are held in a special file at AMEF and on the first of each month, checks drawn for that month are deposited in Foundation accounts. A doctor may therefore give a sizeable annual amount at only a minimum cost per month. Or he may write checks for smaller amounts in those months he knows to be less active and larger ones during his busy periods. The plan is suggested to all, who will find it useful in promoting larger annual gifts. The Foundation extends its thanks to Dr. Li for presenting it.

SOCIAL SECURITY TO INCLUDE MEDICAL SERVICES? NO, SAY VOTERS POLLED

In a recent poll of voters in the Sixth Congressional District, The Honorable Charles E. Chamberlain reports a strikingly heavy response to his questionnaire. His district includes Genesee, Ingham and Livingston Counties.

Of particular interest to physicians is the vote on the following question:

"Do you favor the general idea of broadening social security benefits to include medical services, to be financed by increased contributions by individuals and employers? 36 per cent, Yes; 52 per cent, No; and 12 per cent, Not Certain."

Other subjects uppermost in people's minds were farm controls . . . they don't like them; labor racketeers . . . they want them brought to book immediately; and the federal budget . . . they want it kept in the black.

SIX OF SEVEN MICHIGAN FAMILIES HAVE HEALTH INSURANCE, U-M SURVEY REPORTS

Approximately six out of seven Michigan families say they now have some form of health insurance coverage, a statewide University of Michigan survey indicates.

Preliminary findings of the survey, based on interviews with more than 1,000 families, have been reported by Prof. Walter J. McNerney, director of the U-M Bureau of Hospital Administration. The survey is part of a broad study of hospital and medical economics in Michigan financed by the W. K. Kellogg Foundation.

As defined by the survey, health insurance includes coverage for doctor or hospital bills, or both. It does not include insurance against loss of income from sickness, accidents, or disability.

The number of health insurance policies reported held by families was as follows:

None	13.7 per cent
One	42.7 per cent
Two	28.1 per cent
Three	11.6 per cent
Four	2.5 per cent
Five or more	1.4 per cent

McNerney said: "The high proportion of families with two or three policies is explained by two factors. One is that families with more than one employed member frequently have multiple coverage, since most health insurance coverage is obtained on a group basis through place of employment. The other is that some accident and disability policies were reported as health insurance. These will be eliminated when verification of insurance is complete."

When asked how they would pay a very large medical bill (equal to about two month's income) not covered by insurance, 27.4 per cent said they would use savings, 23.5 per cent said they would postpone or pay in installments, and 32.8 per cent said they would borrow from other sources. The rest cited miscellaneous ways or didn't know how they'd pay.

The U-M survey also inquired about frequency of use of medical and hospital services. Some highlights of the findings:

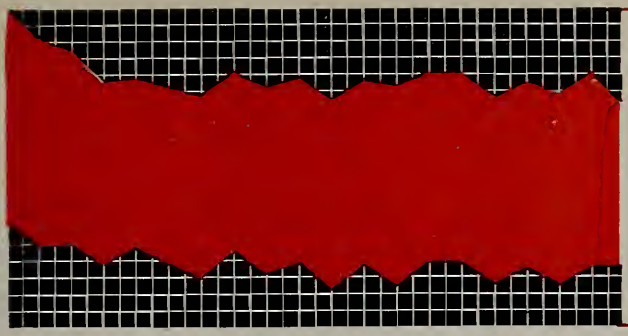
About two-thirds of those interviewed visited a doctor's office at least once during the preceding year. Frequency was as follows:

One or Two Visits	25.4 per cent
Three to Five Visits	16.3 per cent
Six to Eight Visits	8.4 per cent
Nine or More Visits	13.7 per cent
No Visits	33.0 per cent
Not Ascertained	3.2 per cent

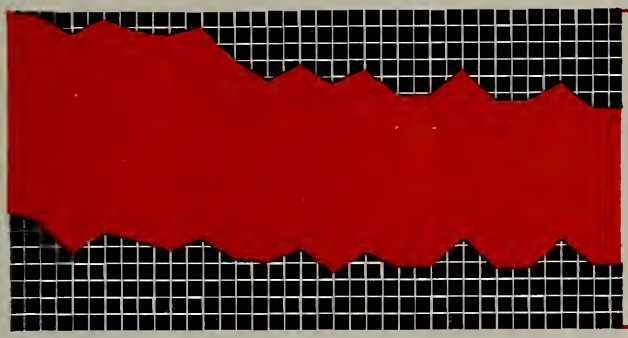
One in 10 families said they received house calls from doctors during the preceding year. Among those age 65 and over, twice as many reported at least one doctor's house call.

Opinion was fairly evenly divided between proponents of early medical care and those in favor

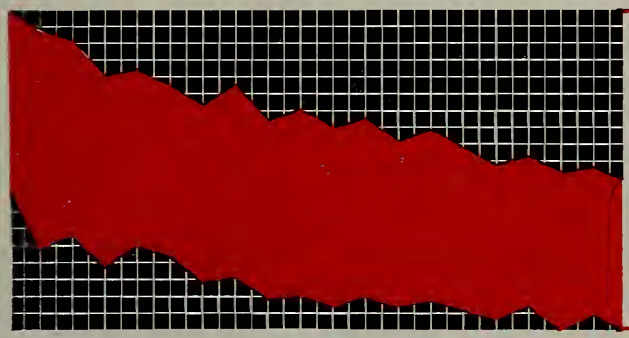
(Continued on Page 1048)



HYDRODIURIL alone



RESERPINE alone



HYDROPRES

much more effective than either of its components alone

- Effective by itself in a majority of patients. Provides smooth, more trouble-free management of hypertension.
- Since HYDRODIURIL and reserpine potentiate each other, the required dosage of each is lower when given together as HYDROPRES than when either is given alone.
- HYDROPRES provides the needed and valuable tranquilizing effect of reserpine. Lower dosage may reduce such side effects of reserpine as excessive sedation and depression.
- Arrest or reversal of organic changes of hypertension may occur.
- Headache, dizziness, palpitations and tachycardia are usually promptly relieved. Anginal pain may be reduced in incidence and severity.
- With HYDROPRES, dietary salt may be liberalized.
- Convenient, controlled dosage.

HYDROPRES-25

25 mg. HYDRODIURIL, 0.125 mg. reserpine.
One tablet one to four times a day.

HYDROPRES-50

50 mg. HYDRODIURIL, 0.125 mg. reserpine.
One tablet one or two times a day.

If the patient is receiving ganglion blocking drugs or hydralazine, their dosage must be cut in half when HYDROPRES is added.

MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

*HYDRODIURIL AND HYDROPRES ARE TRADEMARKS OF MERCK & CO., INC.

SIX OF SEVEN MICHIGAN FAMILIES HAVE HEALTH INSURANCE

(Continued from Page 1044)

of waiting until they are sure care is necessary before seeing a doctor. Of those interviewed, 41.6 per cent felt "you should go to a doctor at first sign of trouble," 31.5 per cent felt "you should wait until you're sure there's something serious," and 20.6 per cent said "it depends on the kind of symptoms." The rest didn't know or didn't answer.

The U-M study showed about one in seven persons (15.4 per cent) had been hospitalized during the preceding year.

Among those who were not covered by health insurance, the survey showed about half had never held this type of coverage, while half had let their policies lapse. Among those whose policies lapsed, about half said this happened when they left a job which included this type of insurance coverage.

Further survey findings will be described in a series of reports starting this fall.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of May 20, 1959

- **Financial Report of the Society** for the four month period ending April 30, 1959, and bills payable for the current month, were presented, given study and approved.
- **Secretary of the Michigan State Board of Registration in Medicine,** E. C. Swanson, M.D., of Vassar and two other members of the Board, Oscar D. Stryker, M.D., Mt. Clemens and Bradley M. Harris, M.D., Ypsilanti, explained House Bill 511, calling for annual registration of Michigan doctors of medicine.
- **Council Chairman D. Bruce Wiley, M.D.,** reported on Regional Meeting on Insurance and Prepayment Plans of AMA Council on Medical Service held in Pittsburgh, February 28—March 1 which covered such subjects as the over-65 problem, the dissemination of information to the profession on economic subjects, possible nationwide information program to the public, and a review of other states' activities.
- **VA Home Town Medical Care Program.** The Executive Committee adopted a motion: "That the Michigan State Medical Society accept the modified Veterans Administration proposal for the year 1959-60 but that it does so with serious misgivings, and further, unless the program for care of veterans is much improved for next year, that MSMS seriously consider discontinuing its participation."
- **New MSMS Building Progress:** The architect's recommendation versus the contractors' bids was thoroughly discussed. The bids came in at 9 per cent (approximately $35,000) above the architect's estimate. After full consideration the Executive Committee of The Council decided to accept the recommendation of the architect and proceed with the construction of the building as originally planned.

  Report was presented by K. H. Johnson, M.D., Lansing, covering (a) agreement with the city of East Lansing for water and sewer connections, at a considerable saving to MSMS; (b) that a "letter of intent" had been sent to the contractors, who upon receipt of same began excavating on May 18, 1959; (c) an owner's protection or performance bond was authorized to insure to MSMS that the three contractors would complete their building agreements; (d) a ground contour survey of a limited area of the site was authorized, so that specifications for storm and sanitary sewers could be developed; (e) hazard insurance against fire, smoke, wind, malicious destruction, etc., was authorized to be taken out at once.
- **606 Townsend Street, Lansing.** An MSMS representative was authorized to attend a Lansing rezoning hearing on June 2 to secure necessary rezoning of 606.
- **Central Cancer Registry.** The Executive Committee of The Council approved the establishment of a Central Cancer Registry, as requested by the Michigan Cancer Coordinating Committee which will inaugurate such a registry in Detroit as a pilot study, in the near future.
- **Appointments.** (a) Based on Wayne County Medical Society Council's recommendations, J. M. LaBerge, M.D., Donald W. McLean, M.D., George J. Moriarty, M.D., and John M. Pendy, M.D., all of Detroit, were appointed to the Wayne County Councilor District Medical Care Insurance Committee; (b) Ralph A. Johnson, M.D., Detroit, was appointed to MSMS Relative Value Study Committee; (c) J. W. Shureman, LL.B., Detroit, was appointed to Medical Professional Liability Committee; (d) John M. Dorsey, M.D., Highland Park, as Chairman of MSMS Mental Health Committee; (e) 1960 Michigan Clinical Institute Committee on Program: Wm. S. Reveno, M.D., Detroit, Chairman; E. I. Carr, M.D., Lansing; H. M Fuller, M.D., Detroit, A. E. Heustis, M.D., Lansing; J. R. Rodger, M.D., Bellaire; John M. Sheldon, M.D., Ann Arbor; H. M. Smathers, M.D., Detroit; D. S. Smith, M.D., Pontiac and C. S. Stevenson, M.D., Detroit; (f) 1960 Michigan Clinical Institute Committee on Television. Wm. S. Reveno, M.D., Detroit, Chairman; J. B. Blodgett, M.D.; P. L. Cusick, M.D., Detroit; D. H. Kaump, M.D., Detroit; R. L. Mainwaring, M.D., Dearborn; and E. A. Osius, M.D., Detroit; (g) J. M. Wood, M.D., Mt. Pleasant and H. L. Nigg, M.D., Caro, has representatives to aid Governor's Citizens Mental Health In-

(Continued on Page 1052)

more potent and comprehensive treatment than salicylate alone

assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more conservative and manageable than full-dosage corticosteroid therapy—

much less likelihood of treatment-interrupting side effects[1-6] . . . reduces possibility of residual injury . . . simple, flexible dosage schedule

THERAPY SHOULD BE INDIVIDUALIZED

acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.



in any case it calls for

Sigmagen®

corticoid-salicylate compound tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Schering

SG-J-618

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 1048)

quiry Board (Chaired by Grover C. Penberthy, M.D., Detroit).
(h) E. S. Oldham, M.D., Breckenridge, was authorized to attend June 2 Dinner honoring Dr. C. L. Anspach, retiring President of Central Michigan College, as official MSMS representative; (i) President G. B. Saltonstall, M.D., Charlevoix, was authorized to attend the Upper Peninsula Medical Society dinner honoring W. H. Huron, M.D., Iron Mountain, June 19, at The Gateway; (j) Herbert W. Harris, M.D., Lansing, was appointed as MSMS nominee to Michigan Hospital Service Board of Trustees; (k) John R. Rodger, M.D., Bellaire, Chairman of the MSMS Committee on Prevention of Highway Accidents, was authorized to appear as a speaker at Michigan Sheriffs Convention in Escanaba; (l) Max L. Lichter, M.D., Melvindale, Chairman of MSMS Civil Defense Committee, was authorized to attend AMA Civil Defense Conference, Atlantic City, June 6; (m) Lawrence Gardner, M.D., Detroit, was appointed as MSMS representative to the Board of Directors of North Central District Blood Bank Clearing House for fiscal year 1959-60. (n) H. C. Comstock, M.D., Lansing, Chairman of the MSMS School Health Committee, was authorized to attend Seventh National Conference on Physicians and Schools, Highland Park, Ill., October 13-15; (o) B. M. Harris, M.D., Ypsilanti, was authorized to represent MSMS at Annual Convention in Michigan Practical Nurses Association, Ypsilanti, June 18.

- **1960 Michigan Clinical Institute.** The Executive Committee decided that the 1960 closed circuit television programs for doctors only should eminate from Harper Hospital, Detroit. It referred to the Committee on Television the sending of a questionnaire to all MSMS members re their views on live televised programs to the public in connection with the MCI.

- **Plans for Centennial Annual Session of MSMS.** The State Society will be 100 years old in 1965. Discussed was whether it would be appropriate that the Centennial Session be held in Detroit where MSMS first was organized.

- **Official recognition** of the Student American Medical Association Woman's Auxiliary was authorized: This organization was commended on its good progress to date.

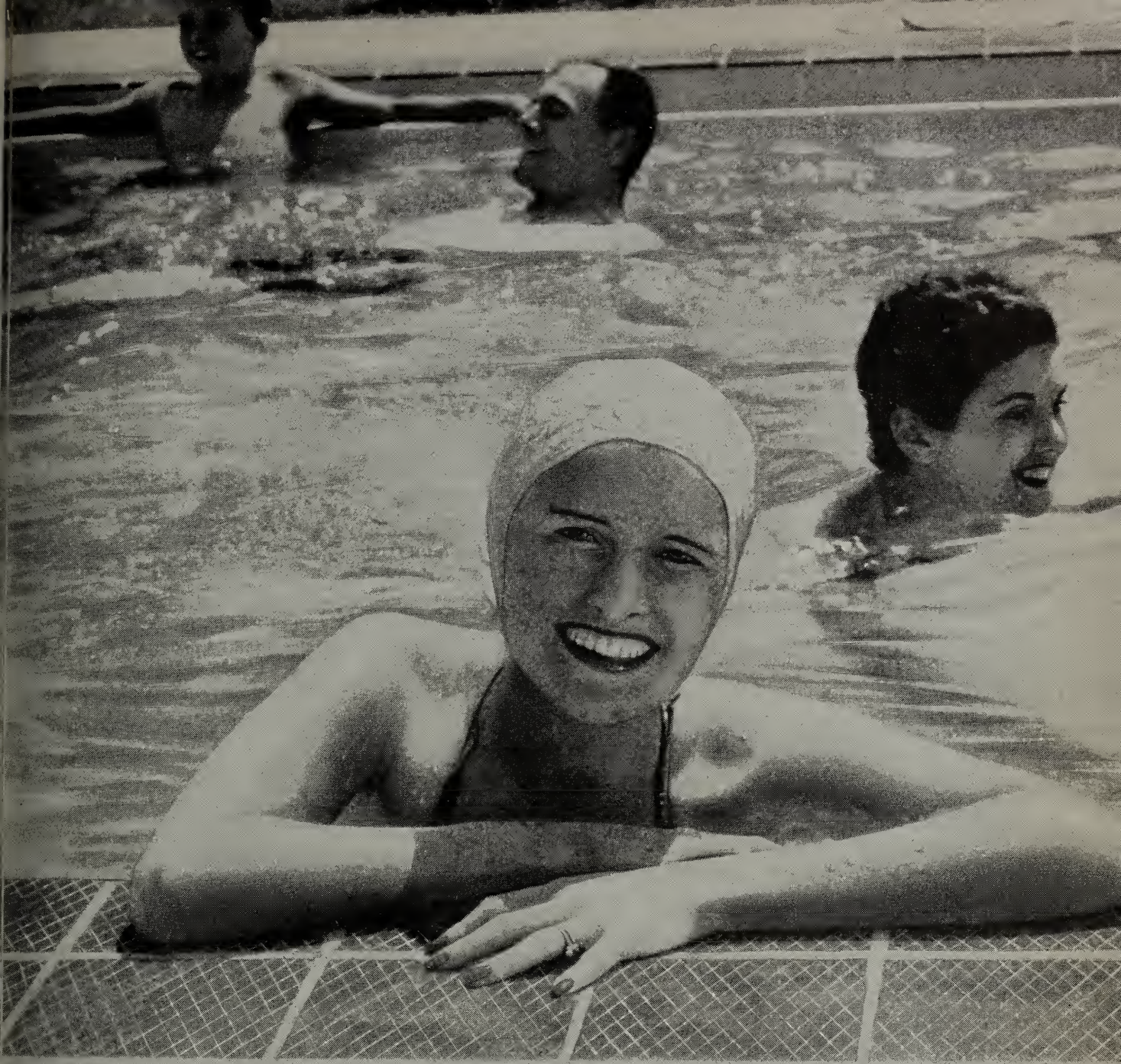
- **Letter from Wayne County Medical Society** re maintenance cost of MSMS Office in the David Whitney House, Detroit, was presented and the necessary increased expenditures were authorized by the Executive Committee of The Council.

- **Legal Counsel's Report** included Opinion concerning hospital policy of permitting patients' charts to be perused by attorneys.

- **The following Committee Reports** were presented: (a) Big Look Committee, meeting of April 1; (b) Medical Care Insurance Committee, meetings of April 22 and May 19; (c) Relative Value Study Committee, meetings of April 18 and May 16; (d) Committee to Study Feasibility of Greater Participation in Blue Shield, March 19; (e) Committee on Study of Prevention of Highway Accidents, April 23; (f) Committee on Arrangements for 1960 MCI (including minutes of Program Committee), May 7.

- **A. E. Heustis, M.D.,** Michigan Health Commissioner, presented matters of mutual interest. Discussion ensued on the term of the Michigan Health Commissioner which expires July 1, and the Executive Committee of The Council adopted the following motion: "That MSMS express to the Governor in writing its support of a higher salary level for the Michigan Health Commissioner to fit the enlarged scope of duties and greater responsibilities thrust upon his office, said salary to be recommended at $25,000, the letter to record the present Health Commissioner's excellent record of service and recommendation that he be reappointed."

- **The Public Relations Counsel's Report** included a progress report on state legislation; on congressional contacts made in Washington, D.C., April 27-28; the Ingham County Woman's Auxiliary legislative tea of March 16; Report on Awards Program of MSMS including eleven categories which report was given approval by the Executive Committee of The Council; recommendation of cooperation from MSMS to the National Medical Association in connection with its Detroit meeting, August 10-13; purchase and broad distribution of AMA pamphlet entitled "The Pill That Could Change America" —a pamphlet re socialized medicine; report on Conference on Medical Writing, April 21, in East Lansing; Gratiot-Isabella-Clare County Medical Society's inquiry re multiphasic screening program; one staff personnel representative to attend, on invitation of the Governor, meeting on State Agency Budget in Lansing, May 21; report on Michigan Health Officers Association reception, May 14, in Grand Rapids; appointment of MSMS correspondent to AMA News (Mrs. Doris Jarrell, Lansing); and progress report on Michigan Association of the Professions.



Of course, women like "Premarin"®

THERAPY for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

The patient isn't alone in her devotion to this natural estrogen. Doctors, husbands, and family all like what it does for the patient, the wife, and the homemaker.

When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

Ayerst®

5854

AMA Washington Letter

THE MONTH IN WASHINGTON

Congress went into the final months of this session with a heavy workload of appropriation bills and foreign aid legislation to be acted upon before adjournment.

Congress must act upon the appropriation bills before adjournment to provide money for operation of the federal government during the 1960 fiscal year. Foreign-aid legislation also is generally put in the "must" category now.

With so much "must" legislation requiring action and Congress hoping to adjourn by late August or maybe earlier, many bills of varying importance will be left for further consideration next year.

An upsurge in the national economy strengthened the position of the Administration and economy-minded members of the House and Senate in their opposition to big-spending bills. Supporters of a Senate-approved $465 million airport bill conceded in advance that a House-Senate conference committee would approve a figure closer to the $297 million version which the House passed.

Substantial gains in industrial production, corporate profits, employment and other key economic factors raised Administration hopes for only a small deficit, if not a balanced budget, in the fiscal year 1960 which began July 1. There also was some talk in influential quarters of a possible tax cut next year. But at this stage, it was highly speculative. And it appeared most likely that if there is one, it will be small.

During the first five months of this session, Congress completed action on only two appropriation bills. They provided funds for operation of the Treasury and Post Office Department in fiscal 1960, and additional funds for various government activities during 1959.

Early in June, the House approved, 393 to 3, a $38,848,339,000 Defense Department appropriation which included $88.8 million for care of certain dependents of military personnel in civilian hospitals. In recommending the Medicare appropriation, the House Appropriations Committee commended the Defense Department "for its response to the intent of Congress . . . that dependents of military personnel have the benefit of prompt and adequate medical treatment at all times wherever they may be."

This contrasted with the Committee's criticism about two months ago. The Committee then expressed concern at what it termed "the high costs of care for military personnel and their dependents in civilian hospitals and the high fees allowed in the program."

In another Medicare development, the Surgeon General of the Army ruled (ODMC Letter No. 7-59) that a patient under the program who has suspected or proven malignancy is acutely ill and qualifies for care. The government will pay for urgently required treatment in such cases when certified by the attending physician.

But it was made clear that payment would be based "solely on the medical requirement for immediate hospitalization." Qualifications of urgency can not be based on mental anguish, emotional attitudes or socio-economic factors.

The Defense Department rejected two proposals of the Florida Medical Association for changes in the Medicare program. The Florida Medical Association proposed that a health insurance program be provided for dependents of military personnel or that control of the Medicare program be transferred to the Department of Health, Education and Welfare.

Dr. Frank B. Berry, Assistant Secretary of Defense for Health and Medicine, said the present program could be handled best by the military service because military dependents "are a highly transient population."

Dr. F. J. L. Blasingame, Executive Vice President of the American Medical Association, suggested to the House Subcommittee on Administration of the Social Security Laws that it consider the advisability of a single Public Assistance medical program at the prerogative of individual states. There are now four such programs covering the blind, the aged, dependent children, and the permanently and totally disabled.

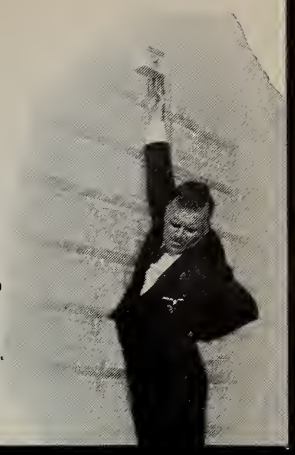
In a letter to Rep. Burr P. Harrison (D., Va.), chairman of the subcommittee, Dr. Blasingame also suggested consideration of:

Whether the medical staff of the Bureau of Public Assistance is now sufficient to provide adequate counselling to states on their individual programs, and

Whether "sufficient liaison has maintained with the various professional organizations actually providing medical care.

Another suggestion of Dr. Blasingame was that a special medical advisory committee might be established in view of the fact that there are no physicians on the recently-appointed Social Security Advisory Committee.

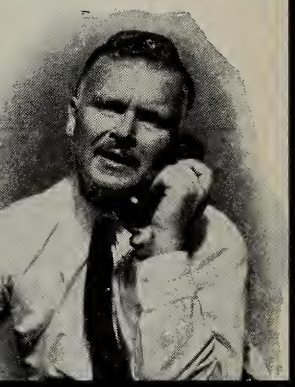
REACHING FOR THOSE 9B's NEARLY PUT ME ON THE SHELF...



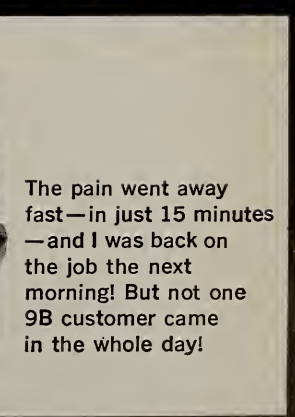
Reaching for 9B shoes and other top shelf sizes is no joke . . . it gave me a terrible kink in my back.



Before the day was over, I could hardly stoop to push a shoehorn.



I called my doctor that night and picked up the tablets he prescribed.



The pain went away fast—in just 15 minutes—and I was back on the job the next morning! But not one 9B customer came in the whole day!

Percodan®-Demi & Percodan® *Tablets*

Salts of Dihydrohydroxycodeinone and Homatropine, plus APC

FOR PAIN

ACTS FASTER — usually within 5-15 minutes. **LASTS LONGER** — usually 6 hours or more. **MORE THOROUGH RELIEF** — permits uninterrupted sleep through the night. **RARELY CONSTIPATES** — excellent for chronic or bedridden patients. **VERSATILE** — new "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law permits oral prescription.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

AND THE PAIN WENT AWAY FAST

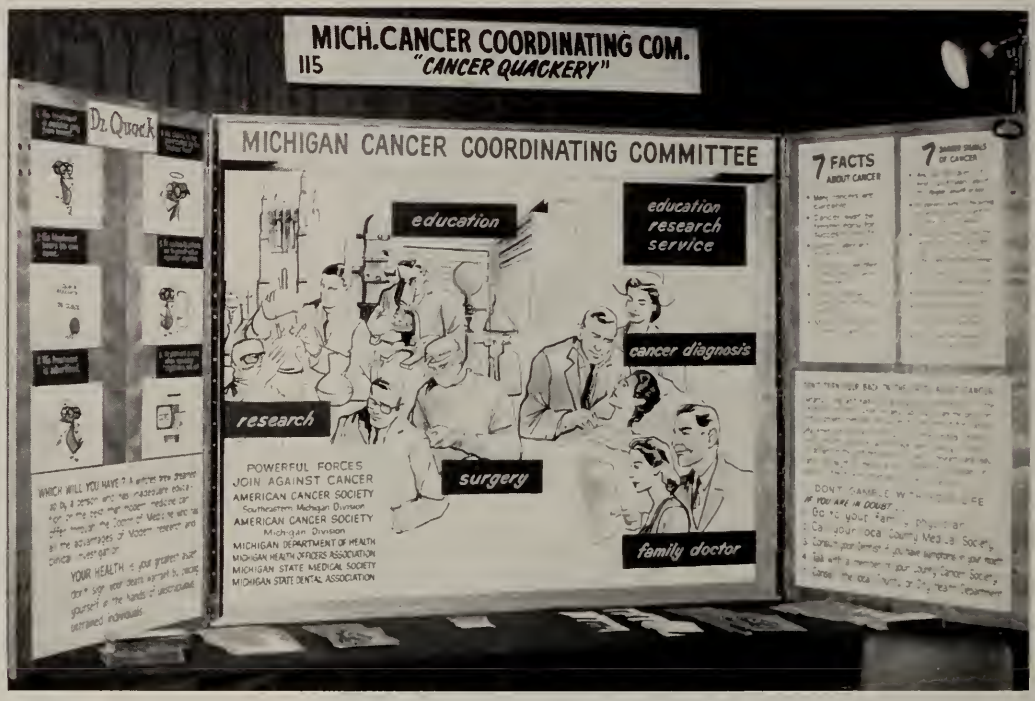
Endo®

Literature? Write
ENDO LABORATORIES
Richmond Hill 18, New York

*U.S. Pat. 2,628,185

Cancer Comment

This column is sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan



New Cancer Quackery Exhibit

The new "Cancer Quackery" exhibit of the Michigan Cancer Coordinating Committee will be displayed at the forthcoming MSMS Annual Session at Grand Rapids, according to M.C.C.C. Chairman Harry M. Nelson, M.D., Detroit.

The exhibit describes the work of "Dr. Quack" and warns the viewer, "Don't Gamble with Your Life." "If you are in doubt," the copy points out, "first, go to your family physician."

In addition to stressing the "7 Facts about Cancer" and the "7 Danger Signals of Cancer," the exhibit points to the work of the legitimate cancer groups. These cancer groups, through the Coordinating Committee, carry on programs of education, research, and service. The six members of the Coordinating Committee are the Southeastern Michigan Division, Inc., of the American Cancer Society, the Michigan Division, Inc., of the American Cancer Society, Michigan Department of Health, Michigan State Medical Society, Michigan State Dental Association, and the Michigan Health Officers Association.

In connection with this cancer display, MSMS annual session participants will be able to obtain the following materials: "Doctor Quack," an interesting four-page leaflet, "Strength through Unity against Cancer" which explains the functions, aims and ambitions of the Michigan Cancer Coordinating Committee, and "Four Horsemen of Cancer" by Louis M. Orr, M.D., President Elect of the American Medical Association.

The exhibit was developed for use throughout Michigan at various functions by B. E. Luck, D.D.S., Lansing, a member of the Michigan Cancer Coordinating Committee. The artist was Dirk Gringhuis, Lansing, and the "Doctor Quack" animated cartoons were developed through the assistance of MCCC member Charles F. Arnold, Detroit, Chief Engineer, Cadillac Motor Car Company, aided by General Motors Art Staff.

Skilled study of blood and bone marrow is essential for the earliest possible diagnosis of leukemia of any type, and for differentiation from certain disorders that may simulate leukemia.

The mere finding of immature white blood cells with or without an increase in the total number of white blood cells is not enough to substantiate a diagnosis of leukemia.

The leukemias of main importance numerically are the myelocytic, lymphocytic, and monocytic.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 JULY, 1959 NUMBER 7

Institutionalized Cretins in the State of Michigan

By William H. Beierwaltes, M.D., Edward A. Carr, Jr., M.D., Govind Raman, M.B., B.S., Norma R. Spafford, A.B., Richard A. Aster, M.D., and George H. Lowrey, M.D.

Ann Arbor, Michigan

ALTHOUGH many excellent articles have been published on surveys of cretins,[7,16,21-23,27,31,38] we have found only one survey of institutionalized cretins.[27] The subjects of this latter study apparently had had no thyroid function studies. In a survey of cretins at two Michigan institutions* for people with intelligence quotients of under 60, we were impressed by the differences between these cretins and forty-nine non-institutionalized cretins seen at University Hospital.[28] We wish to report our findings on these institutionalized cretins.

Material and Methods

Cursory review of the diagnostic files of the Lapeer and Coldwater Home and Training Schools revealed that there were twenty-eight patients institutionalized as mentally deficient cretins at Lapeer and seventeen such patients at Coldwater, Michigan. The records of these patients and other cretins discovered during our studies at these institutions were abstracted by a physician for concrete information outlined on printed forms relative to ninety-three specific historical points on diagnosis of thyroid deficiency, including family history, birth and neonatal history, development, illnesses since birth, habits, previous physician examinations, effect of therapy, and present adjustment. The same historic forms were also filled out by a genetic medical social worker in direct interviews with the parents in their homes at the time she also took a genetic history. Each patient was then given a physical examination with particular attention to forty-eight specific points outlined on printed forms pertinent to the diagnosis of congenital hypothyroidism. Forms used for recording this study were the same forms used in our previous study of forty-nine non-institutionalized cretins seen at University Hospital.[28] Basal metabolic rate (BMR), serum organic iodine (PBI),[1] serum cholesterol,[39] and thyroid per cent I^{131} uptake determinations[3] taken at one, two, five, and twenty-four hours were then attempted on each patient. All patients on desiccated thyroid administration had the medication stopped for six weeks before testing. Serum PBI^{131},[9] and paper chromatography were performed on sera[32] after a tracer dose of 500 μc of carrier free I^{131} was administered to each of the first four patients at Lapeer. This procedure was then omitted on the remaining patients at both

From the Departments of Internal Medicine, Pharmacology and Pediatrics, University Hospital, Ann Arbor, Michigan. Mr. Raman's present address is Health Training and Research Center, Pasighat, N.E.F.A., Assam, India.

The expense of this study was defrayed in part by the Human Resources and Development Fund, American Cancer Society Institutional Grant, the Michigan Memorial Phoenix Project, and the United States Public Health Service Grant M-2399.

*Lapeer State Home and Training School and Coldwater State Home and Training School.

institutions. In the remaining patients, to insure maximum thyroid uptake of I^{131}, in the event a patient inadvertently had been given thyroid present. Laboratory tests would have to be confirmatory in order to make an unequivocal diagnosis.

TABLE I. STATISTICAL SUMMARY OF DATA FROM MEDICAL RECORDS

Medical Data	Lapeer			Coldwater		
	High	Low	Average	High	Low	Average
Chronological age (in years)	60	2.6	31.3	57	7	29.5
Birth weight (in pounds)	13.1	5.5	8.2	15	4	9.2
Age at start of walking (in years)	36†	1.3	3.0	36†	1.0	3.9
Age at start of talking (in years)	43†	2.5	4.6	50+	1.0	2.75
Age at appearance of first teeth (in years)	4	0.7	2.2	3	0.5	1.7
Age at completion of toilet training (in years)	16†	3.0	6.8	20†	2.0	4.3
Number of siblings	10	1	5.1	9	3	4.8
Order of birth	9	1	3.7	5	1	2.4
Mother's age (in years)	41	16	25.4	44	17	25.5
Body height (in inches)	59.5	43.0	55.16	64	41.5	53.19
Body weight (in pounds)	195	82.8	113.5	149	46	96.5
Per cent of weight for height	247	126	165	211	103	147.3
Height age*	13.5	5.5	10.9	16	5.0	10.0
Height quotient**	93	27	55	80	37	58
Age at diagnosis (in years)	10	.25	3.76	7	.25	4.4
Age at which treatment started (in years)	23	0.6	10.4	26	.33	6.6
Age at admission (in years)	48.75	2.75	15	45	7.0	19
I.Q. (April 1957)	50	3.0	28.9	48	10	21.2

†Function not accomplished by age of patient at time of our survey.
*Height age is the mean chronologic age for a child of a certain measured height.
**Height quotient is: $\frac{\text{height age}}{\text{chronologic age}} \times \frac{100}{1}$
(Normal=100. Therefore retarded growth would give a quotient of less than 100).

medication, an intramuscular injection of 10 units of thyroid stimulating hormone (TSH) was given each subject one day before the tracer dose of $I^{131,30}$. An attempt was made to perform an electroencephalogram, radiologic bone survey, and psychometric examination on each patient.

The patients were graded by history and physical examination alone as "classical," "definite," "questionable," or "definitely not" cretins according to the following criteria.

Classical.—Admission photographs of patients or general appearance of the patient at the time of our examination showed all the classical visible features of cretinism and/or the medical history was positive for the existence of retarded development, dry skin and hair, enlarged thick tongue, respiratory difficulty, difficulty in feeding, umbilical hernia, constipation, anemia, retarded mental and skeletal maturation, positive thyroid function tests, and classical response to the administration of desiccated thyroid.

Definite.—Enough of the above criteria were present to make the clinical diagnosis beyond question but all the general features of cretinism were not present.

Questionable.—History inadequate so that the only one of three of the features of cretinism were

Definitely not.—Cretinism pretty well could be ruled out because of lack of positive findings for cretinism.

Our laboratory tests completed, we made a laboratory diagnosis of hypothyroidism as "definite," "possible," or "negative." These diagnoses were made on the basis of the results of the BMR, serum cholesterol, PBI and I^{131} uptake tests on each patient, without correlation of the test results with the patient's name or clinical diagnosis.

"Definite" was used to designate the situation where three of these tests were definitely in the hypothyroid range. "Possible" meant that at least one test was in the hypothyroid range or that two or more tests yielded borderline hypothyroid values. "Negative" meant that no value was in the hypothyroid range.

Results

Clinical Features.—Of twenty-nine patients surveyed at Lapeer, seven were "classical" cretins, eleven were "definite," four were "questionable," and five "definitely not" cretins by medical history and physical examination. At Coldwater we classified six, six, three, and two patients in these categories, respectively. Some of the more interesting clinical details follow.

Sex and color.—Seventy-nine per cent of Lapeer cretins and fifty-six per cent of the Coldwater

cretins were of the female sex. All but two patients were white. The two colored cretins were at Lapeer.

Table I summarizes information obtained from medical records. On each point listed, positive information was obtained on at least fifteen patients. The cretin patient material is seen to be similar in the two institutions.

Several points are of interest. Institutionalized cretins in Michigan chronologically are not children. The average age was about thirty years. Three cretins were fifty years of age or older. Institutionalized cretins were heavier at birth than non-cretinous children, averaging eight to nine pounds in weight. They did not walk until an average age of three to four years. Some were not walking when examined at age thirty-six years. Four were spastic and one of these was an invalid in universal flexion. One other cretin had moderate coxa vera. Three had an obvious shuffling, waddling gait reminiscent of the cretin afflicted with femoral epiphysial dysgenesis. Talking, tooth eruption, and "completion" of toilet training were similarly retarded in all. These cretins came from larger than average families. There was no distinctive appearance in order of birth. The mother's age at the time of birth of the cretin was not unusual. Our cretins were quite uniformly shorter than average and overweight. The diagnosis of cretinism was usually not made until the child was about four years of age. There was a two to six year delay in starting treatment after the diagnosis was made. When thyroid medication was started, it was never increased above 32 mg. per day in nine out of eleven patients in whom the dose was accurately recorded. The remaining three patients received 128 to 192 mg. per day. Twelve patients took thyroid irregularly, six took it regularly, two more cretins took thyroid regularly for a few years and then stopped it. Six were on 192 mg. of thyroid per day and the rest were deliberately kept off thyroid because of intractability of the patient while on thyroid medication. The child was no longer a pediatric patient by the time he was admitted to the hospital, his average age being fifteen to nineteen years. The average I.Q. at the time of our study was in the range of a low grade imbecile.

Table II summarizes other features positively, but less commonly, recorded on medical records.

When physicians recorded results of early physical examinations, they usually reported that the skin and hair were dry, the child was underdeveloped, an enlarged thick tongue was present and the children had feeding problems, umbilical hernia, and constipation. The labor and delivery were usually normal and spontaneous.

Unusually prolonged "jaundice" of three months' and twelve months' duration were recorded in two cretins. We have no proof that this discoloration was not caused by carotinemia.

TABLE II. DATA LESS COMMONLY RECORDED IN MEDICAL RECORDS

Diagnostic Feature	Recorded As Present (Number of Patients)	Recorded As Absent (Number of Patients)
Dry skin and hair	10	1
Underdeveloped	14	0
Respiratory difficulty	3	2
Enlarged, thick tongue	11	1
Feeding problem	5	3
Umbilical hernia	7	2
Constipation	10	1
Normal labor and delivery	21	1 (birth injury) 3 (instruments)
Laboratory studies		
Anemia	7	—
Elevated serum cholesterol	3	—
Low alkaline phosphatase	1	—
Roentgenograms showing retardation of bone maturation	8	—

Whenever the blood count, serum cholesterol, alkaline phosphatase or bone x-rays were performed, they were always compatible with the presence of childhood hypothyroidism. There was striking and unexplained lack of previous laboratory tests of thyroid function. This was in sharp contrast to regularly documented, relatively complete social, psychometric, and psychological data. A serum protein-bound iodine had never been performed and only one I^{131} uptake test had been done.

Medical Social Survey.—Our consulting medical social worker† found that thirty of the patients were born within the State of Michigan. Over 75 per cent of these patients had had no education prior to their admission to these institutions. Three patients had been enrolled in regular public schools and four had attended special schools or classes for a short time. Less than 40 per cent had waited over a year for admission to the institution. The maximum delay between commitment by a probate court and actual admission to the institution was six years. In the same instances, the delay was occasioned by parental indecision in carrying out original plans. The length of time that the patient

†Sarah M. Meier, A.B., M.S.S., Medical Social Worker, University Hospital.

had spent in the institution at the time of our study varied from less than one year to fifty-eight years. This large variation in stay was largely related to the range in age at commitment which varied from age two to forty-four years. The most common reason for committing the individual was difficulty in caring for the partially invalided cretin at home. Forty-six per cent of the cretins came from urban communities, 36 per cent from metropolitan areas, and 17 per cent from rural communities. Although most of the patients had been born within the State, less than one-fourth of their parents both were natives of Michigan and in eight families, both parents had immigrated to the United States. The parents had attained different levels of educational achievement ranging as low as second grade to as high as college graduate. Over 60 per cent came from homes with marginal incomes. Eight families were dependent upon public funds for support. In less than one-third of the patients' families was there indication of family breakdown as caused by divorce, separation, or desertion. Three-fourths of the families had had contact with at least one social or health agency.

Both institutions believed that the patient should, if at all possible, maintain some identification with his own family. During the first year following admission, only eight patients failed to have family visitors. Twelve patients spent a few days in their own homes, some visiting a number of times. Only three cretins returned home for a period of more than one month. Twenty-eight patients had been institutionalized for at least five years. The families of these patients came to see their children at the institutions more frequently than patients institutionalized a shorter period of time. Also, a greater number of patients in this longer institutionalized group visited their own homes for longer periods of time and with more regularity.

*Genetic Field Worker**.—Three patients were reported to have seizures in childhood. Four cretins were spastic. Five were mutes. One of the mutes had a cleft palate. Three cretins had one cretinous sibling each. Another cretin had three cretinous sibs. All four of these cretins (with cretinous sibs) had goiters. Another cretin had a half-sib that was described as a very large still-birth. Another cretin had two sibs with neonatal deaths. A sib of a mute cretin had congenital deafness and a cleft palate. Another cretin had a sib described as obese and mentally dull. Six mothers had goiters. None of their cretins had goiters. Six families had one or more grandparents with goiters. The parents of four cretins were first cousins. The maternal grandmothers of one of these cretins were also first cousins.

Our Physical Examination Results.—Data on height and weight were recorded in Table I.

Voice.—Five cretins were mute. One had a cleft palate. Eight spoke only a few words. The remainder had voices compatible with their myxedematous state.

Myxedema.—Ten were obviously myxedematous. These patients were all over nineteen years of age.

Body Build.—All were short. Nine were obese. Five were thin.

Skin.—Twenty had abnormally dry skin. Ten had coarse hair. Only one had sparse hair.

Vision.—Twenty-two had normal vision. Five had strabismus. Only one had visible cataracts.

Hearing.—Thirteen had good auditory acuity, ten had slight impairment, three poor hearing and three were deaf. Two were mutes.

Teeth.—Nineteen had obvious dental caries and poor development. Only seven had good dental development and no caries obvious to gross inspection.

Thyroid gland.—The thyroid gland was not visibly or palpably enlarged in twenty-six patients. Six cretins had goiters. The goiters were diffuse and an estimated 40 to 70 gm. in four of these patients. The left lobe of the thyroid was minimally enlarged in another patient. One additional patient had a solitary nodule in the left lobe of the thyroid gland. No patient had significant cervical adenopathy.

Heart and lungs.—Nine of the patients had obvious heart or lung disease.

Abdomen.—Four patients had scars from abdominal operations. Four had obvious umbilical hernias. One had bilateral inguinal hernia.

*Ruth T. Davidson, B.S., Field Worker, Department of Human Genetics (James V. Neel, M.D., Ph.D., Chairman).

Spine.—Three patients had lower dorsal kyphosis.

and profile photographs of four representative patients on desiccated thyroid medication.



Figs. 1-4. Frontal and profile photographs of four representative patients on desiccated thyroid medication.

Genital.—The external genitalia appeared normal in all patients, except for lack of the descent of the left testicle in one patient.

Hair.—Two women, aged forty-three and thirty-nine, had mild hirsuitism. None of the patients were bald. Sexual hair was normal in distribution and abundance.

General appearance.—Figures 1-4 present frontal

Laboratory Tests

Thyroid Function Tests.—Table III summarizes the highest, lowest, average values and number of tests performed for the basal metabolic rate, serum cholesterol, serum PBI and I^{131} uptake determinations.

It is apparent that the average BMR or serum cholesterol in our institutionalized cretins is not diagnostically altered. The average serum PBI and

thyroid I^{131} uptake values are diagnostically low. The average serum inorganic iodine values are low enough to suggest that our cretins were not given sufficient iodides in these institutions to result in factitious elevation of the serum PBI, or lowering of the I^{131} uptake values.[2] The average thyroid I^{131} uptake at five hours was higher than at one, two, or twenty-four hours. The values of all these laboratory tests were comparable in both institutions.

TABLE III. THYROID FUNCTION TESTS
Basal Metabolic Rate, Serum Cholesterol, Serum Iodine, and I^{131} Thyroid Uptake

	Lapeer (20 Patients)			Coldwater (12-13 Patients)		
	High	Low	Average	High	Low	Average
				12 Patients		
Basal metabolic rate (per cent)	+24	−42	−18	+10	−21	−5
Serum cholesterol (mg. per cent)	423	166	290	425	162	236
				13 Patients		
Serum iodine (μg. per cent)						
PBI	6.2	0.8	2.31	6.5	0.9	2.75
Inorganic iodine	5.6	0.8	2.11	2.7	0.5	2.0
I^{131} thyroid uptake (per cent of dose)						
				12 Patients		
1 hour	28	0.0	5.8	38	3.0	9.81
				13 Patients		
2 hour	24	0.0	6.8	42	3.3	10.65
5 hour	17	0.0	19.4	42	3.0	10.83
24 hour	29.7	0.0	7.7	28	0.0	7.45

TABLE IV. SERUM PBI^{131} AND CONVERSION RATIO RESULTS
(4 Patients, Lapeer)

Patient Number	PBI^{131} (Normal 0.1-0.05) In Per Cent of Dose/1. Serum	Conversion Ratio (Normal 13-42)
1	0.026	2.2
3	0.03	2.8
10	0.019	1.9
7	0.025	2.9

PBI^{131}.—The serum PBI^{131} and conversion ratio were performed in only the first four patients at Lapeer. The results are shown in Table IV.

It is apparent that both the PBI^{131} and the conversion ratio values were in the myxedema range in each patient tested.

Serum chromatography.—Serum chromatography in three of the patients shown in Table IV showed only traces of T^4, and possibly T^3 in patient number 10. This appeared and was maximum at two hours. Patients 1, 3, and 7 showed only I^{131} on chromatography.

Table V relates thyroid laboratory test diagnoses against the clinical diagnoses.

It is apparent when the diagnosis is classical or definite by history and physical examination, that laboratory tests are usually in accord. When the diagnosis is not certain, these laboratory tests

TABLE V. RELATION OF LABORATORY TEST DIAGNOSES TO CLINICAL DIAGNOSES

Institution	Patient	Clinical Diagnosis	Laboratory Diagnosis
Lapeer	1	Classical	Definite
	2	Classical	Definite
	3	Classical	Definite
	4	Classical	Definite
	5	Classical	Definite
	6	Classical	Definite
	7	Classical	Possible
	8	Definite	Definite
	9	Definite	Definite
	10	Definite	Definite
	11	Definite	Definite
	12	Definite	Definite
	13	Definite	Definite
	14	Definite	Definite
	15	Definite	Definite
	16	Definite	Definite
	17	Definite	Definite
	18	Definite	Negative
	19	Definite	Negative
	20	Questionable	Definite
	21	Questionable	Negative
	22	Questionable	Negative
	23	Questionable	Negative
	24	Definitely not	Possible
	25	Definitely not	Negative
	26	Definitely not	Negative
	27	Definitely not	Negative
	28	Definitely not	Possible
Coldwater	29	Classical	Definite
	30	Classical	Definite
	31	Classical	Definite
	32	Classical	Definite
	33	Classical	Definite
	34	Classical	Definite
	35	Definite	Definite
	36	Definite	Definite
	37	Definite	Definite
	38	Definite	Definite
	39	Definite	Definite
	40	Definite	Definite
	41	Questionable	Negative
	42	Questionable	Definite
	43	Questionable	Possible
	44	Definitely not	Negative
	45	Definitely not	Negative

usually help rule against the possibility that hypothyroidism is present.

Other Laboratory Tests

Mental Testing†—Figure 5 graphically presents the results of seventy-two mental age determinations on forty patients at ages three through fifty-two years. Chronological age is recorded on the abscissa in years. Mental age in years is graphed on the ordinate. Data points not connected by lines refer to patients in whom only one mental age determination was made. Lines connecting data points represent successive mental age tests at different periods in life recorded in nineteen patients. The great majority of the tests were on the revised Stanford-Binet Scale, Form L. Occasionally form M was used. The Binet-Kuhlman, Kuhlman and Merrill-Plamer tests were occasionally used. All cretins were started or continued on desiccated thyroid medication on admission to these institutions. Figure 5 shows that although the mental age usually increased during this period of thyroid administration, even at this late age, the maximum mental age achieved was only eight years.

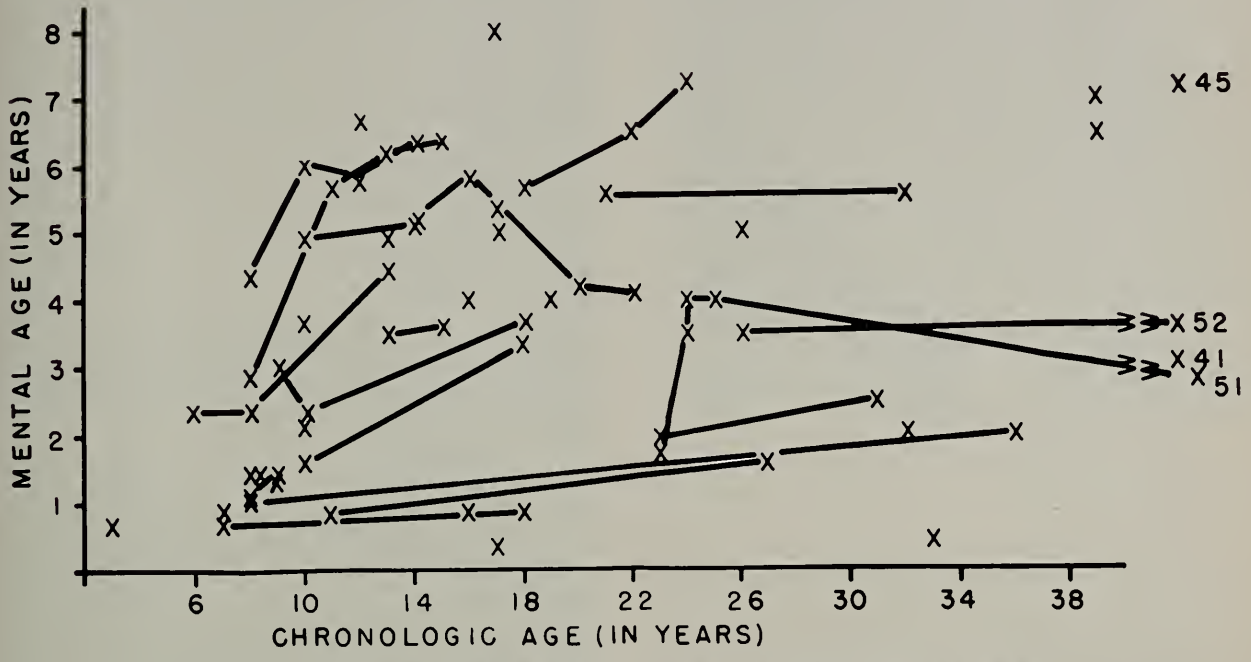


Fig. 5. Mental age of institutionalized cretins at various chronological ages.

Electroencephalography.—Standard lead electroencephalograms were performed upon twenty-one patients at Lapeer when they had been off desiccated thyroid for six weeks or more. Table VI lists the pertinent electroencephalographic features found in cretins.

Only the first twelve patients in this table were definitely cretins by our criteria. The next four were questionable, and the last three were definitely not cretins. The electroencephalographic features of these last seven patients, therefore, offer some control data for the first twelve patients. Although the number of patients is too few to draw any conclusions, there appears to be no gross difference in the intelligence quotients of the cretins and the "control" group. It should be noted that the last six patients were studied by us because they had been coded as cretins. Only on careful study were they proved not to be cretins. Only two out of the first group of twelve had electroencephalographic records within the normal range* while one-half of the six non-cretins had normal records. The most common abnormalities were a slowed basic frequency and flat and featureless records. None of the patients in either group had paroxysmal activity.

*Skeletal Radiography***.—Routine skull, lum-

†Mary DeWolff, Psychologist; A. T. Rehn, M.D. Superintendent, Lapeer. Florence A. Sweet, Psychologist; E. J. Rennell, Superintendent, Coldwater.

*These records were interpreted by Ernest Rodin, M.D., Assistant Professor of Neuropsychiatry, University Hospital.

**We are indebted to Ian Middlemaas, M.D., Department of Radiology (Dr. F. J. Hodges, Chairman) for interpretation of roentgenograms.

bar spine, pelvis and wrist roentgenograms were obtained on thirty-two cretins at both institutions. At the time of our filming, the patients were between fifteen and fifty-six years of age. When visualized in three patients, did not extend behind the mid-point of the pituitary fossa in sixteen and was within normal limits in thirteen. Twenty-five patients had normal mastoids. The mastoids were

TABLE VI. ELECTROENCEPHALOGRAPHIC FEATURES OF INSTITUTIONALIZED CRETINS

Cretins	I.Q.	Normal	Borderline	Diffuse Disturbance	Decreased Alpha Rate (Normal=8-12)	Basic Frequency (Normal=8-12)	Flat and Featureless
2	41		+		8-9	8-9	
12	37	+				? (flat)	+
4	35			+		5-7	+
11	44		+			5	+
15	40			+		4-7½	+
14	40			+		4-6	
9	36			+		4-6	+
10	8	+muscle tremor					+
17	32			+		4-7½	
3	33		+			5-7	
13	33		+			7½	
18	10		+		7½-8	7½-8	
21*	37			+		7½	
20*	3			+		3-7	
						2-3	
						18-20	
23*	53	+					
22*	9			+	8-9	4-7	
						2-3	
25**		+			9/Sec.	9/Sec.†	
27**			+		8-10	9-10	
28**	24	+			8	8	

*=Questionable diagnosis of cretinism.
**=Definitely not cretins.
†=Increased maturity.

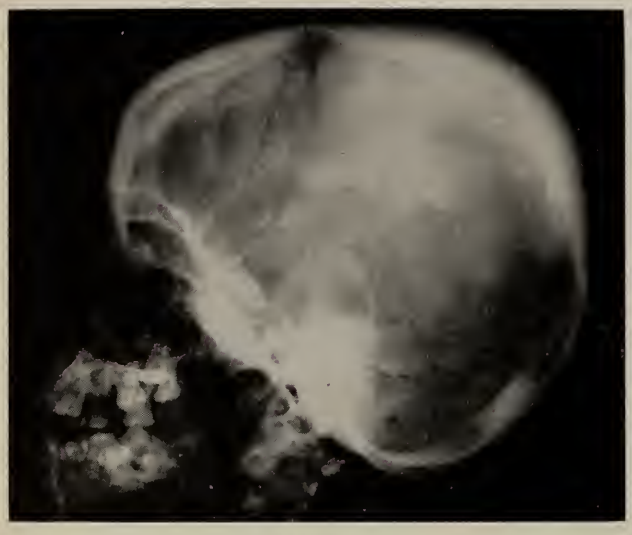


Fig. 6. Skull roentgenogram of Patient R. B.

roentgenograms of individuals under age fifteen are presented, they are films obtained by others on eight of our patients prior to our studies.

Skull.—The frontal sinus was absent in fifteen, small in eight and within normal limits in nine of our thirty-two cretins. The frontal sinus was absent in two cretins who had abnormally thick and dense skulls (Fig. 6). The sphenoid sinus was not acellular in seven patients. The maxillary antrum never showed abnormality.

Two cretins had abnormally thick and dense skulls. Figures 6 and 7 are photographs of skull roentgenograms of these two patients.

The first cretin (Fig. 6) was thirty-seven years of age when this roentgenogram was taken during our study. The second patient (Fig. 7 *above*) was five years of age when this skull roentgenogram was taken February 15, 1944. The serum calcium at this time was 7.0 mg. and on September 15, 1944, was 13.3 mg. per cent. Figure 7 *(left below)* shows her appearance in March 1944. She shows the typical features of a cretin. Figure 7 *(right below)* shows her appearance in September 1944, on desiccated thyroid. Some of the so-called "elfin" features described in association with idiopathic hypercalcemia are apparent. After thyroid therapy was instituted, a repeat skull roentgenogram showed a relatively normal skull on July 11, 1946. At the time of our study, the patient was found to be in uremia. The serum calcium was 12.0 mg. per cent, the serum phosphorous was 4.0 mg. per cent, the alkaline phosphatase was 6.8 units (K.A.), and the N.P.N. was 44.0 mg. per cent.

The pituitary fossa was in the normal range[34]

of 12 mm. or less in the antero-postero diameter in twenty-one patients, between 13 and 15 mm. in three patients, and ranged from 15 to 20 mm. in six patients. The sella of three of the latter cretins

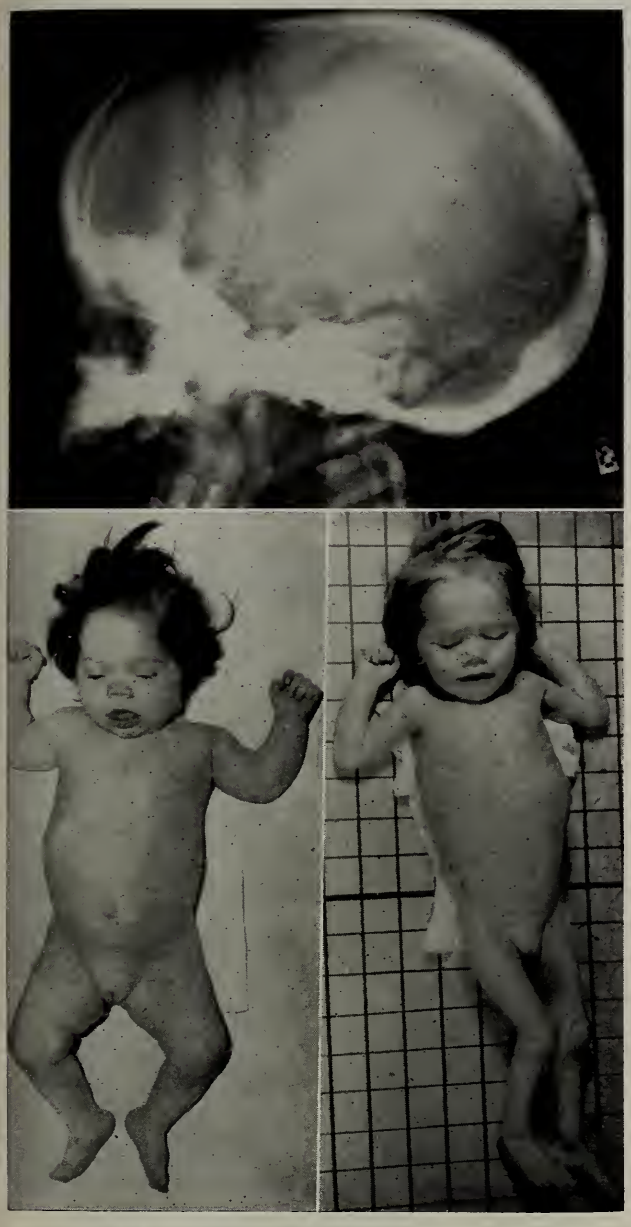


Fig. 7 *(above)* Skull roentgenogram of Patient Y. W. *(left below)* Photograph of Patient Y. W. taken in March, 1944. *(right below)* Same patient photographed in September, 1944.

measured 18 mm. or more. Figure 8 shows the enlarged pituitary fossa of one of these cretins. Therefore, about one-fourth of our patients apparently had an enlarged sella.

Figure 6 summarizes defects of cretinism seen in the skull of our patients. This skull roentgenogram displays thickened skull bones with no frontal sinuses, and an enlarged sella.

Spine.—Four of thirty-two cretins over fifteen years had deformities of the dorso-lumbar spine. These patients were eighteen, nineteen, thirty-seven, and forty-one years of age. Figure 9 *(left)*



Fig. 8. Skull roentgenogram showing enlarged pituitary fossa in a cretin patient.

illustrates the typical gross clinical spinal deformity of kyphosis. The twelfth thoracic or one of the first two lumbar vertebrae on lateral view show anterior pointing, occasionally with some posterior displacement. Figure 9 *(center left)* shows sharp anterior pointing of L_2 and slight deformity of L_3 in a nine-year-old girl cretin. Figure 9 *(center right)* shows the spine of a thirty-five-year-old grossly deformed woman cretin with deformity of L_2. The vertebra appears to be squeezed backward between the bodies above and below it. The epiphyseal plates are still unfused. Figure 9 *(right)* shows a milder deformity of L_1 and L_2, but generalized osteoporosis, relative increase in the thickness of the intervertebral discs and extensive calcification of aorta. Only two of our adult cretins showed any generalized changes in the spine. The vertebral bodies of these two patients were of reduced vertical height with some relative increase in the depth of the disc spaces.

Pelvis.—Generally, the pelves of our adult cretins were small but there were no visible diagnostic features in the pelvic bones to suggest the etiology of this dwarfing.

Femoral heads.—Only two of our thirty-two institutionalized cretins over fifteen years of age



Fig. 9. Spinal roentgenograms showing the typical gross clinical spinal deformity of kyphosis.



Fig. 10. *(above)* Pelvic roentgenogram showing persistent fragmentation and flattening of the femoral heads with broadening of the femoral necks in a nineteen-year-old woman cretin. *(below)* Pelvic roentgenogram showing coxa vera with flattening of a more completely ossified femoral head in a forty-one-year-old woman cretin.

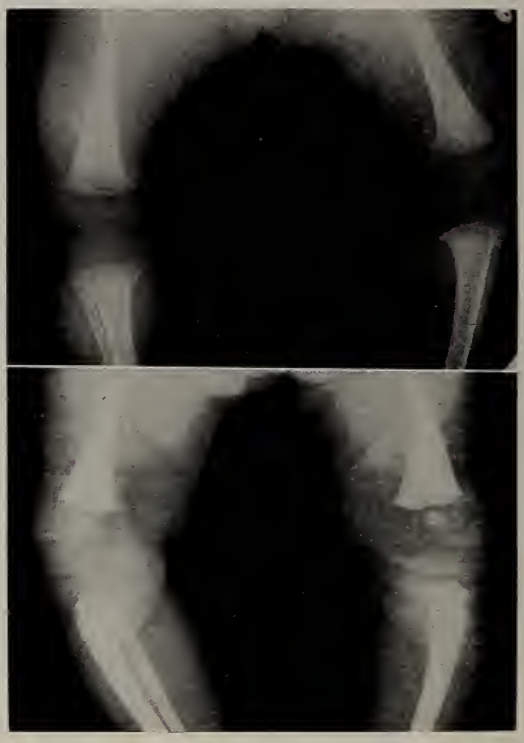


Fig. 11. *(above)* Roentgenogram of knees showing no distal femoral epiphysis in patient at age of three months. *(below)* Knee roentgenogram of five-month-old cretin showing a stippled appearance of epiphysis.

showed persistent fragmentation and flattening of the femoral heads with broadening of the femoral necks. Figure 10 (*above*) shows the presence of persistent fragmentation and flattening of the femoral heads with broadening of the femoral necks in a nineteen-year-old woman cretin. Figure 10



Fig. 12 *(left)* Wrist roentgenogram showing dense wavy metaphyseal bands with only two carpal centers in a seven-year-old cretin. *(center)* Shows broad dense metaphyseal bands in a girl cretin nine years of age. *(right)* Shows cupping of the distal end of the ulna in a nine-month-old cretin.

(below) shows coxa vera with flattening of a more completely osified femoral head in a forty-one-year-old woman cretin.

Knees and ankles.—No roentgenograms were taken of the knees and ankles of our institutionalized cretins. The distal femoral epiphysis and talus usually appear in the first few years of life in cretins, and normally are present at birth. Figure 11 *(above)* shows the knee film of one of our University Hospital cretins who had no distal femoral epiphysis at age three months. Figure 11 *(below)* shows a stippled appearance of this epiphysis in a five-month-old University Hospital cretin.

Wrists.—Figure 12 shows the only bony abnormalities of the metaphyses seen in the wrists of these patients. Figure 12 (*left*) shows dense wavy metaphyseal bands, with only two carpal centers in a cretin at age seven years. Figure 12 (*center*) shows broad dense metaphyseal bands. The phalangeal epiphyses have appeared before the carpal centers instead of a year or so later as in the normal. This female cretin was nine years old at the time of this roentgenogram. Figure 12 (*right*) shows cupping of the distal end of the ulna in a cretin, nine months old. As adults, only two patients had easily visible epiphyseal lines in the radials. One forty-year-old cretin had only dots instead of carpal epiphyseal centers. One nineteen-year-old male cretin still had unformed epiphyses.

Pathology.—Nine cretins died at Lapeer and Coldwater. Relatively complete pathology reports were available on only three of these patients. Only one of these nine cretins was a patient we had studied.

Case Report

Case 46.—This white man, forty-three years of age when last admitted to Lapeer March 19, 1947, died April 12, 1947. His parents were cousins. He had three siblings who were "normal." He had a classical history of cretinism. On physical examination he showed the classical stigmata of cretinism. He was 3 ft. 8½ in. tall. He spoke only in monosyllables. He had an umbilical and a left inguino-scrotal hernia.

His autopsy diagnoses were: (1) Complete thyroaplasia, (2) Hypostatic pneumonia, (3) Cirrhosis of liver, and (4) Congenital ichthyosis.

Brain examination by Dr. Konstantin Scharenberg‡ showed:

Gross.—Meninges congested. Cerebral hemispheres asymmetrical, left smaller than right, particularly in the occipital lobe. Pronounced hyperemia of the cortex and all the gray masses in the subcortical regions. The convolutions in general appear to be somewhat malformed, penetrating deeply into the white matter. The white matter is reduced in quantity. There is a suggestion of scarring in the thalamus.

Microscopic.—Poor differentiation of the cortical layers. Pronounced terminal congestion. Nissl preparation discloses marked hyaline degeneration and calcification of the blood vessels in the pallidum, less pronounced in the putamen and the dentate nucleus. The cortical

‡Konstantin Scharenberg, A.B., M.D., Professor of Psychiatry, University Hospital.

changes are difficult to interpret since there is suggestive evidence of degenerative changes secondary to primary malformation.

Impression.—Malformation, cytoarchitectural disturbances.

Case 47.—This white woman was twenty-seven years of age when last admitted to Lapeer August 1, 1939. She died January 24, 1940. She had been diagnosed as a cretin at age nine months. Her history and physical examination together with a photograph showed a definite picture of cretinism.

Her autopsy diagnoses were: (1) Bronchopneumonia and (2) Congenital aplasia of the thyroid gland.

Gross.—Gross examination of the brain showed a weight of 900 gm. Both the cerebrum and the brain stem were distinctly small. There was malformation of the convolutional pattern.

Microscopic.—Microscopically there was malformation of the cytoarchitecture with incomplete differentiation of the normal layers as well as primitive forms of neurons. The appearance of the cortex was compatible with a nonspecific degenerative process with loss and shrinkage of nerve cells and diffuse proliferation of the glia.

Case 48.—This child, five years of age when admitted to Lapeer on April 30, 1931, died May 21, 1931. This child was the sister of two living cretins in our study, Case 5 and Case 12. The child was a classical cretin by history and by physical examination and was on thyroid medication at the time of death. According to physical examination, x-ray and autopsy, the child died of pneumonia of both lungs. The thyroid was present and appeared normal in size. No gross abnormality of the brain was recorded. Microscopic examination of the brain was not performed.

Case 49.—This child, a classical female cretin by history and physical examination, was ten years of age at death. The child was blue for the first year of life. She died of "an upper respiratory infection." The clinical diagnoses were: (1) Cretinism and (2) Congenital heart disease.

No autopsy was performed.

Case 50.—This man was thirty-one years of age at the time of death. By physical examination and by photograph he was typically cretin and had an I.Q. of 4. He apparently died of lobar pneumonia. No autopsy was performed.

Case 51.—This four-year-old cretin was classically cretinous by history, physical examination, and by photograph at age three. She died of "acute bronchitis." No autopsy was performed.

Case 52.—A similar patient that died at the age of eleven of "massive lobar pneumonia." No autopsy was performed.

Case 53.—This woman was a classical cretin twenty years of age at death. She had a goiter and died of "volculous." No autopsy was performed.

Case 54.—This woman, one of the classical cretins at Coldwater studied by us, died at the age of fifty-seven, after our study, apparently of obstipation and overt congestive heart failure. No autopsy was performed.

Because of lack of thyroid functions tests and routine autopsy information few conclusions may be made. A few points are of interest, however. The average age at death (twenty-three years) is only a little less than the average age of our subjects at the time of our study. The predominant cause of death was pneumonia. There was no obvious increased incidence of congenital malformations. In the three patients whose brains were studied by a neuropathologist, the common pathological brain findings were: (1) decreased mass of cerebrum and brain stem, (2) malformation of the convolutions, (3) poor differentiation of the cortical layers, and (4) degenerative change in the cortex with loss and shrinkage of nerve cells.

Discussion

Selection.—It is important to stress that the cretins forming the basis of this report are a selected group. They are selected in that they were all institutionalized in the State of Michigan, the principal requirement for admission to these institutions being an intelligence quotient of less than 60. These cretins, with intelligence quotients averaging about 24 and showing much other gross evidence of retardation obviously suffered from severe lack of thyroid hormone during the maturation of the brain. Our cretins seen at University Hospital[28] with intelligence quotients averaging about 65 and showing less retardation obviously suffered less from thyroxine deficiency during brain maturation. It was this comparative difference, and the lack of reports on institutionalized cretins that stimulated the present research. It was our hope that comparison of the two groups might reveal information that would help the clinician prevent a child born with hypothyroidism from incurring unnecessary mental and physical retardation as a result of thyroid hormone deficiency. The pertinent and principal differences between the two groups (institutionalized cretins and University Hospital cretins) will now be discussed.

Age.—Institutionalized cretins were older on admission and older at the time of our study than were the University Hospital cretins on first admission to University Hospital or at the time of our study. This age difference may account for several differences in the two groups. In the case of institutionalized cretins, details of early clinical observations and early laboratory studies were more frequently forgotten or at other hospitals. These details were much easier to obtain from the University Hospital charts and from the parents of our much younger groups of University Hospital cretins.[28]

Birth Weight.—If increased birth weight in cretins is caused by lack of thyroid hormone *in utero,* then institutionalized cretins reflected this thyroid hormone lack by presenting a greater birth weight than University Hospital cretins.

Retardation of Development.—Also, institutionalized cretins came from larger families. Their parents generally had done less well in life financially and intellectually. It is of interest that the mothers of the cretins in both University Hospital and institutionalized group were approximately the same age when they gave birth to the cretin, and the cretinous birth was approximately the same birth order with the rest of the siblings. The increased number of siblings of institutionalized cretins may be related to the fact that these families were older than the families of the University Hospital cretins.

Weight and Height.—Increased height and weight of the institutionalized cretins are undoubtedly associated with their older age. They were proportionately heavier for their height, however, than University Hospital cretins.

Age at Diagnosis and Start of Treatment.—The most important reason, we believe, for the much worse mental and physical retardation of institutionalized cretins is the fact that the diagnosis was made 2.7 years later on the average and treatment was started 6.7 years later on the average than in the University Hospital group of cretins. The resultant lower I.Q. of our institutionalized cretins is reflected in the finding of our medical social worker that over 75 per cent of these patients had had no education prior to their admission to these institutions, in spite of the fact that the average age at admission was approximately seventeen years. Approximately two-thirds of the University Hospital cretins of school age had had schooling, however, in spite of their younger average age.

Residence in Area of Endemic Goiter.—The duration of residence of cretins and parents in the State of Michigan is of interest since there is some evidence that an endemic goiter develops in a person only after he has resided in an endemic goiter area for fifteen years or more.[26] Also, McCarrison believed that the increased incidence of cretinism occurred in endemic goiter areas only after two or more generations of a family had spent their lives in that endemic goiter area.[29] Our social worker found that although most of the cretins had been born within the State of Michigan, less than one-fourth of their parents were both natives of Michigan and in eight families, both parents were immigrants to the United States. From 1918 to 1920, up to 86 per cent of the persons in some areas of Michigan had endemic goiter.[26] Twenty-six years after the institution of iodination of salt, the incidence of goiter had dropped to less than 1 per cent, in the lower peninsula of Michigan.[8] The average age of our cretins is less than the period of time over which iodized salt has been ingested. It is logical to expect, therefore, that a large per cent of the mothers were ingesting iodized salt during the pregnancy that produced the cretin.

Associated Defects.—The genetic social field worker found that more institutionalized cretins than University Hospital cretins had associated defects. These defects included "seizures" in childhood, spasticity, deafness, mutism, and cleft palate. Other patients also had a relatively high incidence of cretinous siblings, thyroid disease in the family, and consanguinity of parents and grandparents. The increased incidence of cretinism, deafness, mutism, and feeblemindedness in endemic goiter areas is well recognized.[41] The increased incidence of spasticity and convulsions is not so well known. Of Braid's endemic cretins, one was deaf, two had spasticity of the limbs, and one had epileptic attacks.[6] McCarrison[29] called cretinism associated with these neurologic abnormalities "nervous cretinism," that is, cretinous idiocy plus spasticity and convulsions. He believed that some cretins with very low I.Q. had associated diplegia and tetany caused by fibrosis of the thyroid and parathyroid glands. He noted that one-third of all Himalayan

cretins were of this type. Thomson[42] found three such cases among sixty-two cretins. Himsworth[18] reported such a case and commented on atony of muscles of the lower extremities. The method the cretin used in walking up steps and rising from the recumbent position was reminiscent of pseudohypertrophic muscular dystrophy. The main point we wish to make here, however, is that these neurologic abnormalities were not found in University Hospital cretins with relatively high intelligence but were found in institutionalized cretins with very low intelligence. The neurologic abnormalities, therefore, seem to correlate roughly with the degree of brain damage caused by lack of thyroid. The brain damage resulting from lack of thyroid does not necessarily cause a direct effect on the brain. For example, Hellegers[17] found that low fetal serum B_{12} levels were found only in infants showing clinical evidence of cretinism. Thyroid therapy in infancy rapidly increased these levels to normal. It is of interest that although only a few of our cretins were mute, many had speech defects. Lewis[27] found in his study of cretins of seven institutions in London that few cretins with intelligence quotients of less than 80 could articulate clearly. They slurred their consonants and in many instances used "f" instead of "th," and other childish mispronunciations. Hurxthal[21,22] stated that as high as 29 per cent of endemic cretins are deafmutes and 32 per cent of endemic cretins are hard of hearing. Costa[10] performed caloric stimulation in seventy-eight cretins. Only five had a normal response. He concluded that the defect in the eighth cranial nerve was not limited to cochlear function but also appeared in the vestibular division. Furthermore, the vestibular function defect was relatively severe in comparison to the cochlear defect. (He also found paresis, a positive Babinski reflex, strabismus, hyper-reflexia of tendon jerks, convulsive seizures, and hemiatrophy of the tongue from paralysis of the hypoglossus.)

If the increased incidence of deafmutism is a result of residence in an area of high incidence of endemic goiter, then it might be expected that the majority of the mutes in our series were born before 1925, the time of the iodination of salt in the State of Michigan.

Physical Examination.—The point was stressed in our study of younger University Hospital cretins[28] that the classical clinical picture of cretinism does not develop for several months after birth. Since these institutionalized cretins were mostly adults at the time of our study, it was expected, and found, that a higher per cent of this latter group would present the classical picture of myxedema.

The higher incidence of strabismus in the institutionalized cretins presumably is related to a more severely damaged brain as a result of delayed diagnosis and treatment with thyroid.

The higher incidence of decreased auditory acuity is probably related to the fact that this defect can be detected more easily in older individuals and also because it is known to occur not uncommonly in adults with myxedema. Howarth[19] studied the hearing defect in seven hypothyroid women. Five proved to have perceptive deafness and two others had mixed conduction and perceptive deafness. On thyroid therapy maximum improvement in hearing occurred in three to four weeks. When thyroid therapy was stopped, relapse of auditory acuity occurred in two weeks.

Three out of six deaf cretins were over thirty-three years of age, and therefore, were born before the institution of iodized salt.

The higher incidence of dental caries in this group than in University Hospital cretins may be related to older age or more prolonged lack of thyroid hormone. Skelton[37] reported that dental caries is most severe where treatment has been delayed.

The fact that approximately one-fourth of the institutionalized cretins had localized or diffuse enlargement of the thyroid gland contrasts with the 8 per cent incidence of goiter in University Hospital cretins.[28] This higher incidence of goiters in our institutionalized cretins as compared to our younger University Hospital cretins may be a reflection of the older average age of the former since goitrous cretins usually develop their goiters at five to sixteen years of age.[47]

Thirty per cent of the twenty institutionalized cretins tested with 1, 2, 5, and 24-hour uptakes demonstrated uptakes compatible with the presence of a thyroid gland. Four of these patients had goiters. Three patients with goiters showed significant uptake neither at one, two, and five hour intervals nor at the twenty-four-hour interval.

The higher incidence of functioning thyroid tissue in institutionalized cretins raises the possibility that many of these cretins were diagnosed and treated later than University Hospital cretins because more of the former group possessed some thy-

roid tissue that elaborated enough active thyroid hormone to make the diagnosis of thyroid hormone deficiency more difficult, but not enough active hormone to prevent severe retardation of brain and bone maturation.

Our finding that institutionalized cretins have a 30 per cent incidence of functioning thyroid tissue, all demonstrated by the clinical goiter and by I^{131} concentration tests, is a higher incidence than Wilkins found in 115 cases of sporadic cretins seen at Johns Hopkins. Radioiodine uptake studies in forty of these patients demonstrated that four of the forty (10 per cent) showed normal or high uptakes. Two patients, aged six and eight years, had goiters. One of these goiters was removed and was found to contain carcinoma. De Quervain found that 25 per cent of cretins had goiters.[12] These cretins, however, and the thirty cretins studied by Stanbury[40] in Mendoza were apparently endemic goiter area cretins. The earlier literature on cretinism further confuses the question of how often cretins have thyroid tissue present in the neck by stating that endemic cretins have goiters and sporadic cretins have no thyroid tissue. The fact that Michigan was an endemic goiter area, but now, after the iodinization of salt, has had no abnormal incidence of goiters in school children[8] raises the question of whether or not Michigan should still be classed as an endemic goiter area.

Laboratory Tests.—The basal metabolic rate is frequently as impractical a test of thyroid function in adult cretins as in infants and children.[28] The adult cretins may not co-operate because they are still children mentally. Skeletal deformity and obesity may make height and weight determinations inaccurate. The serum cholesterol is frequently helpful but the average value is only in the high normal range.[48] The I^{131} thyroid per cent uptake test has been mentioned under the discussion of goiters. It should be stressed, however, that the twenty-four hour value is the most diagnostic of the one, two, five, and twenty-four-hour test intervals. Only two institutionalized cretins had normal twenty-four-hour values. The laboratory diagnosis of cretinism was made in these individuals by serum PBI and serum cholesterol. Cretins have developed goiters, the ability to secrete adequate amounts of thyroid hormone, and even supernormal amounts of thyroid hormone resulting in the clinical picture of hyperthyroidism.[20] The growth of thyroid gland in this fashion, presumably under the influence of thyroid stimulating hormone, might result in a normal or elevated twenty-four-hour I^{131} uptake. This uptake might also be related to the production of iodoglobulins, not thyroxine.[44] Six of our patients did have normal serum protein bound iodine values. None had supernormal values. Stanbury found normal serum protein bound iodine values in a cretinarium in Mendoza.[40] Werner performed serum chromatography on the hydrolysate of the non-butanol extractable fraction of an iodoprotein in a cretin and found that approximately a third of the protein-bound iodine consisted of circulating iodoproteins, and a third consisted of thyroxine bound to alpha globulins and albumin. Twenty-nine per cent of the circulating radioactivity was bound to the gamma globulins and a similar amount to the beta globulins.[44] The normal serum PBI values in six of our institutionalized cretins is in contrast to a subnormal serum PBI in all University Hospital cretins tested.

One might conclude that the BMR, serum cholesterol, PBI, I^{131} thyroid uptake test, PBI^{131} and serum chromatography are each frequently helpful in detecting and defining the thyroid defect in adult cretins. Used together, they will usually corroborate a classical clinical diagnosis. In our series, when the tests were all against the diagnosis of thyroid function deficiency the patient was not a cretin clinically. The twenty-four-hour I^{131} uptake and the serum PBI were the two most helpful tests in establishing the diagnosis of thyroid deficiency.

Mental Testing.—The institutionalized cretins differed from University Hospital cretins in the results of repeated mental testing in that the values of the former group first rose slightly on thyroid therapy and then remained constant over long intervals of time while the intelligence quotients of the University Hospital group usually rose until about age eight years and then apparently fell, unless thyroid therapy had been started early and in adequate dosage. This difference is probably more apparent than real, since values in institutionalized cretins are recorded as mental age, while values in University Hospital cretins are recorded as intelligence quotients.

Kimball,[25] in a study of 281 Detroit school children diagnosed as having congenital hypothyroidism, found that 117 out of 205 given repeated intelligence tests showed a persistent decrease in intelligence quotients with increase in chronological age above eight years. Ninety-three, or 80 per cent

with this apparent falling intelligence had goiters. He observed that the untreated cretin seldom exceeds a mental age of six years. Those recognized in infancy or early childhood and treated adequately appear to gain rapidly for a few months or a year, then go along at the same mental age of approximately eight years instead of a mental age of six years found in the untreated cretins. With the mental age thus fixed, the intelligence quotient naturally falls as a result of increasing chronological age.

Delay in starting thyroid medication for the cretin apparently arrests mental age because the majority of postnatal brain growth occurs in the first year of life. Fisher, Hammond and Pickering[14] have shown that one-half of all postnatal brain growth has occurred by the end of the first year, and three-fourths of this growth occurs during the first six months. Apparently most brain growth has occurred by six years of age because Wilkins has observed that "when thyroid failure occurs after six years, the mental development is usually normal, although the reactions are sluggish."[46]

Electroencephalography.—Little can be said about comparison of the electroencephalographic findings in the two groups of cretins because no electroencephalograms were obtained in the University Hospital cretins. Topper[43] found electroencephalographic findings of "diffuse cerebral dysfunction" in five of seven cretins. In the other cretins who had normal intelligence quotients, the "tracings were entirely consistent with a normal mentality." He found that if the electroencephalogram was abnormal in an infant cretin that no amount of desiccated thyroid could restore the electroencephalogram to normal. He suggested that performance of the electroencephalogram in the childhood of a cretin might suggest the prognosis for eventual mental development of that cretin. D'Avignon[11] made essentially the same observations. Ross and Schwab[33] made electroencephalographic determinations eighty times in twelve patients with myxedema and in twenty-two patients with hyperthyroidism. A good direct (0.668) correlation was demonstrated between the alpha rate and the BMR results. The diffuse cerebral disturbance demonstrated by electroencephalograms in our cretins might be expected in view of the diffuse brain damage found in two patients at post mortem.

Skeletal Changes.—In the University Hospital cretins, all twenty-nine cretins with satisfactory skeletal roentgenograms showed delayed osseous maturation.[28] Without exception, the longer adequate therapy was delayed, the more marked was the relative retardation of bone maturation. Epiphyseal dysgenesis as described by Wilkins,[45] was present at the initial examination in only 5 per cent of the cretins. When desiccated thyroid medication was started, however, and ossification of cartilage took place, the majority of follow-up films showed irregular deposits of calcium.

It might be expected that the more retarded institutionalized cretins would show even more retardation of maturation of bone. It must be remembered, however, that most institutionalized cretins are given desiccated thyroid. Although it is usually given too late to prevent severe brain damage, thyroid may cause striking bone maturation even when given relatively late in life.[15]

The frontal sinuses were usually absent or abnormally small. Two cretins had the abnormally thick and dense skulls (and other bones) reported in idiopathic hypercalcemia.[35] The serum calcium in one of these patients was 13.3 mg. per cent at the time of the original roentgen findings. Idiopathic hypercalcemia has been described in three cretins out of a total of twelve previous cases reported of idiopathic hypercalcemia.[35] It has been suggested that the etiology of hypercalcemia in cretinism may be increased sensitivity to vitamin D.[35]

It is of interest that 28 per cent of institutionalized cretins had enlarged sellae, presumably caused by an increased growth of thyroidectomy cells. Hurxthal observed that the younger the experimental animal at the time of thyroidectomy, the greater the subsequent pituitary enlargement. He records pituitary mass up to four times normal in human cretins, "the rule in endemic cretins," and usually associated with an increase in basophils ("thyroidectomy cells"), a decrease in eosinophils and an increase in acidophilic colloid.[21]

Although total surgical or radioiodine thyroidectomy in the young rat produces transplantable pituitary tumors, apparently, none of our nine cretins that died suffered from overt carcinoma of the pituitary. None of the living 28 per cent of cretins with enlarged sellae had evidence of osteolytic metastasis in sphenoid bone.

Evans[13] described deformity of the twelfth thoracic or the first and second lumbar vertebrae in seven out of thirteen cretins. He noted that the

affected vertebrae are those most affected by trauma, and the abnormality is probably caused by the stress of flexion action on chondrodystrophic vertebral bodies. The deformity usually developed in his patients between the ages of six months and two years. In some patients the deformity decreased with treatment. Kyphosis may not be present early even by radiography. Four of our adult cretins showed this deformity (Fig. 9). Only two of our thirty-two institutionalized cretins over fifteen years of age showed persistent fragmentation and flattening of the femoral heads with broadening of the femoral necks. This relative lack of epiphyseal dysgenesis[45] may be because most cretins receive thyroid when they are institutionalized. It might still be possible to ossify the femoral heads by thyroid administration while other bony deformities secondary to thyroid deficiency cannot be repaired by thyroid therapy (for example, enlarged sella). Epiphyseal centers of the knees and wrists also are apparently very sensitive to thyroid administration since few of our institutionalized cretins had significant retardation of bone maturation of these centers.

Pathology.—We cannot draw conclusions about the average age at death and mode of death in cretins only on the basis of some information about the nine institutionalized cretins who died, especially since autopsies were performed on only three of these patients. A record of an early death might not be made because a cretinous infant or young child is seldom institutionalized. Pathologists in four hospitals of over 300 beds in our area found no *bona fide* evidence of cretins in their recorded autopsies. It is probable, however, that many cretins die in the first few months of life of respiratory obstruction.[28]

Four of our institutionalized cretins' deaths occurred at age four to eleven years. The remaining five were twenty to fifty-seven years of age. Benda[4] states that mongols usually die before the age of twenty years, presumably of multiple congenital anomalies. There does not appear to be an increased incidence of congenital anomalies in cretins. Since it has been observed that untreated cretins never have been reported to live past the age of thirty-eight,[24] it is probable that the reason Lewis[27] and we have observed a few cretins living to age fifty years or beyond, is because the institutionalized cretin is usually given desiccated thyroid.

Since the predominant cause of death was pneumonia, it is conceivable that the high incidence of infection as a cause of death may be related to the relatively poor antibody producing ability of the hypothyroid individual. It might also be related to an increased incidence of aspiration pneumonia.

It is difficult to know at this time how specific for this disorder were the macroscopic and microscopic abnormalities in the brains of our autopsied cretins. Smith[38] has reviewed the literature on this subject. The literature on this subject available today can be fairly well summarized by the statement of Siegert in 1910[36] that there are no characteristic anatomic changes in the brain except simple developmental disturbances such as are found in other forms of idiocy.

Summary

At two Michigan Institutional Homes for the mentally deficient, thirty-one subjects out of forty-five suspected were proved to be cretins. Using the same techniques of study, these cretins were compared with forty-nine previously reported proved cretins seen at University Hospital. Institutionalized cretins were older with an average age of thirty years at the time of our study, and showed a much more severe degree of mental retardation. The diagnosis of cretinism was made when these subjects were an average age of four years and treatment was started at an average age of eight years. University Hospital cretins, on the other hand, were diagnosed at an average age of one and three-tenths years and treatment was started promptly and in more adequate dosage. There was a higher incidence of deafness, deafmutism, spasticity and strabismus in the more severely retarded institutionalized cretins. Although the mental age of the latter usually rose when thyroid medication was started upon hospitalization, the maximum mental age achieved was eight years. One-third of institutionalized cretins had thyroid tissue in the neck when studied with TSH. There was a definite increased incidence of familial goiter. Six cretins had goiters. Six mothers of cretins had goiters but their cretinous children did not have goiters. The average BMR or serum cholesterol was not diagnostically low. The average serum PBI, PBI,^{131} conversion ratio, and thyroid I^{131} uptake values were diagnostically low, although the average five hour uptake was higher than the average one, two, or twenty-four hour uptake. When the

diagnosis was classical or definite by history and physical examination, the serum PBI and I^{131} thyroid uptake tests were usually in accord. When the diagnosis was not certain, these laboratory tests usually helped rule against the possibility that hypothyroidism was present. The most common electroencephalographic abnormalities were a slowed basic frequency and flat and featureless records. Radiologic bone surveys demonstrated that the frontal sinuses were usually absent or small. Two cretins had the abnormally thick and dense skulls and other bones reported in idiopathic hypercalcemia. One of these patients also had hypercalcemia. Twenty-eight per cent of institutionalized cretins had enlarged sellae. Four patients showed deformity of the twelfth thoracic and/or the first and second lumbar vertebrae, usually developing between six months and two years of age. Only two patients showed persistent fragmentation and flattening of femoral heads. The average age at death of nine cretins was twenty-three years. Five deaths occurred between the ages of twenty and fifty-seven. Pneumonia was the predominant cause of death. In the three patients whose brains were studied by a neuropathologist, the common pathological findings in the brain were decreased mass of cerebrum and brain stem, malformation of the convolutions, poor differentiation of the cortical layers, and degenerative change in the cortex with loss and shrinkage of nerve cells. These changes are probably not specific for brain damage caused by lack of thyroid hormone during the critical periods of brain development.

Acknowledgments

Dr. A. T. Rehn, Superintendent of Lapeer and Dr. E. J. Rennell, Superintendent of Coldwater State Home and Training Schools, made this study possible through their interest, encouragement, and the enthusiastic co-operation of their entire staffs. Of the personnel on their staffs, we are particularly indebted to Dr. Frank Andrews, Assistant Superintendent at Coldwater, and Mrs. White, head nurse in the Outpatient Department at Lapeer.

References

1. Barker, S. B., Humphrey, M. J. and Soley, M. H.: The clinical determination of protein-bound iodine. J. Clin. Invest., 30:55, 1951.
2. Beierwaltes, W. H.: The value of radioactive iodine uptake and protein-bound iodine estimations in the diagnosis of thyrotoxicosis. Ann. Int. Med., 44:40, 1956.
3. Beierwaltes, W. H., Johnson, P. C. and Solari, A. J.: Clinical use of radioisotopes. p. 91-93 and 161-163. Philadelphia: W. B. Saunders Company, 1957.
4. Benda, C. E.: Mongolism and Cretinism. 2nd ed., rev. New York: Grune & Stratten, 1949.
5. Bertucio, M.: Discussion in: Thyroid and Iodine Metalobism. 20th Ross Pediat. Res. Conf., p. 74. Columbus, Ohio: Ross Laboratories, 1957.
6. Braid, F.: Hypothyroidism in childhood. Brit. Med. J., 1:1169, 1951.
7. Brown, A. W., Bronstein, I. P. and Kraines, R.: Hypothyroidism and cretinism in childhood. VI. Influence of thyroid therapy on mental growth. Am. J. Dis. Child., 57:517, 1939.
8. Brush, B. E. and Altland, J. K.: Goiter prevention with iodized salt: Results of a thirty year study. J. Clin. Endocrinol., 12:1380, 1952.
9. Clark, D. E., Moe, R. H. and Adams, E. E.: The rate of conversion of administered inorganic radioactive iodine into protein-bound iodine of plasma as an aid in the evaluation of thyroid function. Surg., 26:331, 1949.
10. Costa, A., Cottinl, F., Ferraris, G. M., Marchis, E., Marocco, F., Mortara, M. and Pietra, R.: Research in pathology of endemic cretinism. Medicina (Parma), 3:455, 1953. Costa etal Richerche sula patogenesi del cretinismo endemico.
11. D'Avignon, M. and Melin, K. A.: The EEG in congenital hypothyreosis. Acta paediat., 38:37, 1949.
12. De Quervana, F. and Wegelin, K.: Der Endderni sthe Kretinisums. Berlin: J. Springer, 1936.
13. Evans, P. R.: Deformity of vertebral bodies in cretinism. J. Pediat., 41:706, 1952.
14. Fisher, D. A., Hammond, G. D. and Pickering, D. E.: The hypothyroid infant and child. A.M.A. J. Dis. Child., 90:6, 1955.
15. Fournier, J. C. M., Barsantini, J. C. and Bazzano, H. C.: Myxedema with delayed closure of epiphyses in sexually mature women. J. Clin. Endocrinol., 8:482, 1948.
16. Gordon, M. B.: Childhood myxedema or so-called sporadic cretinism in North America. Endocrinol., 6:235, 1922.
17. Hellegers, A., Okuda, K., Nesbitt, R. E., Jr., Smith, D. W. and Chow, B. F.: Vitamin B_{12} absorption in pregnancy and in the newborn. Am. J. Clin. Nutrition, 5:327, 1957.
18. Himsworth, H. P. and Maizels, M.: Vitamins D_2 and D_3 and A.T.10 in congenital thyroid and parathyroid deficiency. Lancet, 1:959, 1940.
19. Howarth, A. E. and Lloyd, H. E. D.: Preceptive deafness in hypothyroidism. Brit. M. J., 1:431, 1956.
20. Hurxthal, L. M.: Cretinism. M. Clin. North America, 32:122 (Jan.) 1948.
21. Hurxthal, L. M. and Musulin, N.: Cretinism, Part I. Definition, classification and etiology—a review. Am. J. Med., 1:56, 1946.
22. Hurxthal, L. M. and Musulin, N.: Cretinism, Part II. Observations and treatment of cretins having concurrent hypothyroidism, euthyroidism, or hyperthyroidism. Am. J. Med., 1:63, 1946.
23. Jackson, A. S.: Cretinism in the United States, with a survey of 512 cases. West. J. Surg., 42:497, 1934.
24. Jackson, W. P. V.: Studies of adult cretins, II. Particular characteristics in the adult. South African M. J., 26:631, 1952.
25. Kimball, O. P. and Marinus, J. C.: The relation of endemic goiter to mental deficiency. Ann. Int. Med., 4:569, 1930.

26. Levin, S.: One thousand one hundred forty-six goiters in one thousand seven hundred eighty-three persons. Arch. Int. Med., 27:421, 1921.

27. Lewis, A., Samuel, N. and Galloway, G.: A study of cretinism in London with special reference to mental development and problems of growth. Lancet, 1:1505, 1937.

28. Lowrey, G. H., Beierwaltes, W. H., Carr, E. A., Jr., Aster, R., Raman, G. and Spafford, N.: Early diagnostic criteria of congenital hypothyroidism: A comprehensive study of 49 cretins. A.M.A. J. Dis. Child, 96:131, 1958.

29. McCarrison, R.: The Simple Goitres. 1st Ed. p. 9. New York: William Wood and Company, 1928.

30. Perlmutter, M., Weisenfeld, S., Slater, S. and Wallace, E. Z.: A study of the mechanism of the inhibition of the thyroid gland induced by ingestion of thyroid substance. J. Clin. Endocrinol., 12:208, 1952.

31. Radwin, L. S., Michelson, J. P., Berman, A. B. and Kramer, B.: End results in treatment of congenital hypothyroidism: Follow-up study of physical, mental and behavioral development. Am. J. Dis. Child., 78:821, 1949.

32. Roche, J., Michel, R., Michel, O. and Lissitzky, S.: Sur la Deshalogenation Enzymatique des Iodotyrosines par le Corps Thyroide et sur son Role Physiologique. Biochim, et Biophys. Acta, 9:161, 1952.

33. Ross, D. A. and Schwab, R. S.: The cortical alpha rhythm in thyroid disorders. Endocrinology, 25:75, 1939.

34. Royster, L. T. and Rodman, N. F.: The size of the sella turcica in relation to body measurements. Tr. Am. Pediat. Soc., 34:246, 1922.

35. Shiers, J. A., Newhauser, E. B. D. and Bowman, J. R.: Idiopathic hypercalcemia. Am. J. Roentgenol., 78:19, 1957.

36. Siegert, F.: Ueber die sogenannte Kuhmilch-Idiosynkrasie im Säuglingsalter. Verhandl. d. Versamml. d. Gesellsch f. Kinderh . . . deutsch. Naturf. u. Aerzte 1909, Wiesb., 1910, 85-93.

37. Skelton, E. K.: The clinical aspects of dwarfing. Endocrinol., 30:1000, 1942.

38. Smith, D. W., Blizzard, R. M. and Wilkins, L.: The mental prognosis in hypothyroidism of infancy and childhood. Pediat., 19:1011, 1957.

39. Sperry, W. M. and Webb, M.: A revision of the Schoenheimer-Sperry method for cholesterol determination. J. Biol. Chem., 187:97, 1950.

40. Stanbury, J. B., Brownell, G. L., Riggs, D. S., Perinetti, H., Itoiz, J. and Del Castillo, E. B.: Endemic Goiter, The Adaptation of Man to Iodine Deficiency. Cambridge, Massachusetts: Harvard University Press, 1954.

41. Study Group on Endemic Goiter: Final report. Bull. World Health Organization, 9:293, 1953.

42. Thomson, J.: The clinical study and treatment of sick children. Brit. M. J., 2:618, 1955.

43. Topper, A.: Mental achievement of congenitally hypothyroid children. Am. J. Dis. Child., 81:233, 1951.

44. Werner, S. C., Block, R. J. and Mandl, R. H.: Circulating iodoproteins in a nongoitrous adult with primary amenorrhea, bony deformities and normal levels of serum precipitable iodine and thyroidal T 131 uptake. J. Clin. Endocrinol., 17:1141, 1957.

45. Wilkins, L.: Epiphyseal dysgenesis associated with hypothyroidism. Am. J. Dis. Child., 61:13, 1941.

46. Wilkins, L.: The Diagnosis and Treatment of Endocrine Disorders in Childhood and Adolescence. p. 84. Springfield, Ill.: Chas. C Thomas, 1950.

47. Wilkins, L., Clayton, G. W. and Berthrong, M.: Development of goiters in cretins without iodine deficiency: Hypothyroidism due to apparent inability of the thyroid gland to synthesize hormone. Pediatrics, 13:235, 1954.

48. Wilkins, L. and Fleischmann, W.: Hypothyroidism in childhood. III. The effect of withdrawal of thyroid therapy upon the serum cholesterol. Relation of cholesterol, BMR, weight and clinical symptons. J. Clin. Endocrinol., 1:91, 1941.

NONSPEEDERS SUFFER ON HIGHWAYS, TOO

You won't have to roam far from home or drive fast to get there to be one of 20,000 Americans who are expected to be killed or injured in traffic over the Labor Day weekend.

While speed is a prime factor in the more spectacular crashes, the bulk of holiday accidents happen at moderate speeds, on dry pavements, in daylight, near the homes of those involved.

The Travelers Insurance Company of Hartford, Connecticut, which writes insurance on 1,500,000 cars, made a survey of its claims that grew out of the July 4 holiday weekend.

It found that while high speed accounted for more spectacular accidents, the bulk of casualties came from rear-end collisions, traffic-light violations, failure to yield right-of-way and similar prosaic conduct by drivers.

Nowhere in the accident survey was a car involved in which a safety belt was in use.

Seven of eight drivers involved weren't far from home.

In one out of twenty accidents, drinking was involved.

In three out of 100 accidents, mechanical defects were reported.

One in five accidents occurred on divided highways or superhighways.

Seven out of eight accidents occurred on dry roads in clear weather.

Almost half of those injured or killed were under thirty.

About one in twenty of those injured or killed were pedestrians.—*Detroit Free Press,* August 28, 1958.

Metabolic Aspects of the Aging Process

By John Burke Tipton, M.D.
Ann Arbor, Michigan

IN the study of the metabolic aspects of the aging process or a review of the investigations into this problem, one is faced with a multitude of complex facets that differ widely in many respects and overlap in others. The search for a primary aging process is further complicated because it is barely possible to distinguish between the effects of unnatural or disease interruptions in health and those of the aging process. A species life expectancy of seventy to even one hundred years is first evidence of a basic living force. This must be true or some humans would die naturally at ten years of age, others at age 200 years, instead of the general approximation to the years standard of seventy to one hundred. Also, as Freeman[12] points out, a species aging principle for the organism must be different from that possessed by individual cells, some of which have the potential of immortality. Pearl[29] maintained the somatic death of higher multicellular organisms was simply the price they pay for the privilege of enjoying the higher specializations of structure and function which have been added to the main business of living things, which is to pass on in unbroken continuity the "never-dimmed fire" of life itself. This explanation is acceptable in a philosophical sense but in view of the increasing knowledge and advances in science seen today one should be more critical of an explanation for the changes we now call aging.

Metchnikoff[26] believed in the theory of autointoxication resulting from intestinal putrefaction as a factor in aging. Upon further examination of this theory, it soon becomes apparent that it is not a valid one because aging is a universal process, occurring in plants as well as in animals without large intestines. To be taken more seriously is the concept that senescence is due to failure or deterioration with time, of the protoplasmic colloids. Among the early proponents of this theory were Dhar[7] and Marinesco.[25] A parallel is drawn between the *in vitro* aging of colloids as manifested by syneresis, and the apparent loss of water from *in vivo* colloid systems. One of the obvious features of the living system is its capacity for self-renewal. Protoplasmic constituents are constantly being replaced. If there are old protoplasmic constituents present in senescence it must be due to a failure or inadequacy of the self-renewal system or self-synthetic mechanism. It has been speculated that aging is due primarily to an insufficient rate of protoplasmic self-duplication.[18] Lansing,[17] using rotifers, has made the assumption that transmissible and cumulative aging factor is a component of the aging mechanism of the individual, and accordingly aging of the individual may involve a transmissible, cumulative and reversible factor.

It is beyond the scope of this brief review to attempt to define one broad principle to cover all phases of the metabolic aspects of the aging process. However, it is possible to group the manifestations of aging into two general principles which can be measured quantitatively. These are (1) a reduction in spontaneity of neural and physical response and (2) decreasing ability of the organism to adjust biochemically.

Reduction in Spontaneity of Neural and Physical Response

The norms for neurologic evaluation of aging subjects differ from those for average adults in several respects. As aging progresses the individual loses adeptness in fine movements. The aged habitus is frequently characterized by semiflexion in the principle joints with resistance to passive movements and slowness of willed actions, which give the impression of basal ganglia involvement. The infirmities of joints and tendons may contribute to this habitus along with a general outfall of neurons which may lead to predominance of the flexor musculature. These same changes may contribute to the shortening of stride and unsteady gait which frequently leads to a shuffling, propulsive wide-based walk. The musculature may be

---

This paper won honorable mention in the national competition of the 1956 Schering Award. While a student at the University of Michigan Medical School, Dr. Tipton was vice president of the Senior Class and president of the Galens Honorary Medical Society. He received his M.D. degree in June, 1959.

hyperptonic and the knee-jerk overactive during normal aging and ankle jerks greatly reduced but rarely absent unless that finding has pathologic significance. Also vibratory sensibility is often so diminished in distal parts of the extremities of old people that this test loses some of its value in detecting evidence of posterior column involvement such as occurs in combined sclerosis.[27] Formerly it was thought that small pupils and slowness of pupillary response may be due to atrophic changes in the iridial musculature but more recently Kumnick[16] has shown the pupillary mechanism response to light stimuli remains constant with increasing age.

These signs, as well as a general reduction in spontaneity of vital activity, may well be a reflection of the changes in the metabolism of the nervous system. The neural regulation of both intracellular and extracellular metabolism is carried out through the autonomic nerves. Consequently, these nerves play an important role in the metabolic changes that are associated with aging. Observations[34] made on the chromidal substance of ganglion cells indicate that the external and internal environmental factors are responsible for the marked variations that occur in human ganglion cells. In the dog, many of the factors may be eliminated and ganglionic cells of the older animals show consistent depletion of the chromidal substance. The alkaline phosphatase activity in the neurologic elements in the ganglia of dogs normally is appreciable but diminishes in the aged dogs. The ascorbic acid content in the dog ganglion cells increases with maturity, diminishes with age and in man varies with diet and disease. In senile dogs, the ganglion cells' cytoplasm contains mucopolysaccharides but in man these sugars are limited to the pigment granules.

The cerebral metabolic rate depends upon intracellular enzymes, the substrate supply, and the availability of oxygen. Interference with any of these divisions, if of sufficient degree and duration, may result in functional and structional changes in the central nervous system. Cerebral metabolism probably proceeds normally at a maximal rate. Although it may be depressed with relative ease by decreased substrate, inhibition or deficiency in enzymes or by lack of oxygen, there is no conclusive evidence that the normal adult cerebral metabolic rate may be increased. Elevated temperatures and pharmacologic stimulants do not cause a detectable increase in normal cerebral metabolism nor do increases or decreases in thyroxin or insulin appear to affect the cerebral metabolic rate. The graded sensitivity of various parts of the central nervous system to impairment of energy supply reflects local differences in metabolic requirements and therefore in metabolic rate. In the face of systemic hypoxia, there are compensatory mechanisms which maintain adequate oxygenation of brain tissue but which are subject to moderate or marked impairment by diseases as well as in aging. The compensatory mechanism of cerebral vasodilatation may best be stimulated by inhalation of carbon dioxide;[11] other agents are of questionable value.

Significant alterations or loss of cortical neurones is one of the most frequently reported changes in the aging human brain. Besides the loss of nerve cells in aging human brain, characteristic changes occur in the intercellular matrix, the glia, and the intracellular neurofibrils.[27] In recent work by Brownson,[3] studies were made on the relationship of glia to giant neurons using normal human motor cortex with special emphasis on the age factor. From ages three and one half years to eighty-nine years, there was no marked change in ratio of oligodendroglia, astrocytes, and microglia. However it may be that oligodendroglia show a slight increase with increasing age, which could account for a more subtle decrease in astrocytes and microglia cells. In a few specimens observed by Brownson there was evidence of oligodendroglia neuronophagia of nerve cells, especially beyond the fifth decade of life.

Argentophile plaques have come to be considered an outstanding histologic manifestation of aging in the human brain. Soniat[32] believes that the majority of senile plaques arise from degenerating nerve cells and emphasizes the importance of the Alzheimer neurofibrilliary change in relation to cell degeneration. Intracellular lipoid pigment may make its appearance in early life but in old age the pigment increases in amount and becomes more widely dispersed in the cytoplasm. The usual histologic methods are too insensitive to reveal fine changes in the central nervous system with aging hence these changes demonstrable histologically must represent the end result of aging.

In a very old individual, muscle is greatly reduced in mass in comparison to its bulk at the height of vigor. This may be due to actual loss of fibers or by a decrease in their average size. Hines and Knowlton[14] observed in experimental

muscular atrophy only a slight decrease in amount of extracellular tissue and hence a large relative increase in the extracellular phase. Intracellular solids, when calculated on the basis of cell-water as opposed to total tissue weight, escape during atrophy in proportion to their concentrations in the cells as is true with potassium, and acid-soluble phosphorous. The atrophic changes may be due to proportionate loss of individual cytoplasmic elements in the cells with an increasing prominence of extracellular components.[24] The same is also true of the myocardium and brain tissue intracellular levels of potassium and phosphorous. The phosphocreatine concentration in the myocardium exhibit a marked and significant decline with the attainment of old age.[6]

Strobal[33] has reported data indicating a constant decrease in total solids in all four parts of the brain ranging from 8 to 15 per cent. At present, it is only possible to speculate that the loss of cells from the aging brain might leave space for greater amounts of extracellular fluid with its high water content. Even skin actually shows a higher water content at eighty than at sixty years of age, according to Beuger and Schlomka.[4] The present interpretation of the water increases in senescence and atrophy may or may not be correct; nevertheless, the hydration itself appears to be a constant finding. However, additional information on water changes in senescence is needed.

Impairment of Biochemical Adjustments

Of the mass of the adult human body, 90 per cent is that of carbon, hydrogen, and oxygen atoms. Over 90 per cent of the hydrogen atoms of the body are attached to either carbon or oxygen. Hydrogen attached to carbon represents mass and the potential energy of calorific value. Hydrogen attached to oxygen represents mass but not the potential energy of calorific value. For any cell, tissue, or organism, the values of the energy-mass ratio (E/W) depends on the enzyme activity and the onset of old age can thus be interpreted with reference to a tendency for this energy-mass ratio to increase or decrease. Worrall[39] has demonstrated an increase of the energy-mass ratio of most of the cells of the body with cell degeneration of old age. The commonest forms of cell degeneration with aging are cell atrophy and fatty degeneration of individual cells. In the former, cells become denser and smaller with increased proportion of total organic solids to intracellular water, as seen in deeper staining characteristics. With fatty degeneration this change is indicated by visible accumulation of fat in the cytoplasm. In both forms of degeneration, the increased value of the energy-mass ratio of the cells increases until the cells can no longer support the life of the organism as a whole.

Harman[13] believes one factor in aging may be related to deleterious side attacks of free radicals, derived from cellular metabolism, on cell constituents. These arise from dissociation of water and interactions of oxidative enzymes with oxygen and hydrogen peroxide. He further postulates that the connective tissue is slowly oxidized by molecular oxygen catalyzed by metals such as iron, cobalt, and manganese. With old age, the increase in water may be an intercellular edema caused by atrophy of cellular elements[23] leaving a greater space for extracellular water. If there has been a marked increase in extracellular fluid, one may clearly recognize clinical edema. However, a less noticeable fluid increase may have taken place which has escaped clinical detection but is nonetheless real and may be estimated quantitatively by histochemical procedures.[22] Darrow and Yannet[40] have produced intracellular edema by intraperitoneal injection of glucose solutions. Eichelberger and Hastings[10] have shown that both intracellular and extracellular types of edema may be realized experimentally and their amounts measured.

Edema and dehydration have achieved prominence in connection with the problems encountered in the study of the aging process and rightly so, since it is only necessary to mention the prevalence of kidney, heart, and blood vessel disorders in later life to justify the investigation of this aspect.

A metabolizing cell can maintain its normal activity only as long as it can receive materials necessary for maintenance and have removed from its environment materials deleterious to its activity. The nutrition of the cells may be greatly affected by increase in distance from the vascular bed as occurs in extreme extracellular edema. Also the normal activity of intercellular enzymes is dependent on sufficient fluid to permit adequate exchange of materials. It is probable that there is an optimum relation between the mass extracellular and intracellular phases of a tissue, and deviation from this optimum may result in a disturbance in the metabolic activity of the cells.

Insurance company statistics[8] clearly show at every age an increased mortality from degenerative diseases in overweight persons. It is obvious that when large quantities of food are consumed metabolic waste products are produced in greater quantities and, therefore, might accumulate in the organs, tissues, and fluids of the organism. It is reasonable then to believe that overfeeding shortens the span of life. In tissue culture cells, senescence and death can be postponed indefinitely if by frequent changes of the medium, the metabolic waste products are not allowed to accumulate. In such conditions, the "old" cells have just as high a capacity for growth as young ones. The addition of embryonic extract can be demonstrated to improve the growth of cultures growing in "old" serum. This may indicate a deficiency in nutritive substances of aging persons or a depressive effect of "old" serum.[5,9,15,38]

With increasing age there can be demonstrated an increasing calcium content in the periphery of cells. Experimental removal of this calcium has increased the life span in rotifers. This increase in calcium may play a part in the aging process by adding to the change in permeability of the cell, and as the activities of life proceed, the cell is gradually entombed by an inevitable decrease in the permeability of its protoplasm.[2,19-21] However, permeability does not always decrease with age but may increase as aging progresses.[35-37]

The average values of basal metabolism fall significantly with increasing age in both men and women and may be due to any of the following: (1) reduction in total number of cells and histological evidence indicates clearly that the number of functioning cells in many tissues diminishes progressively with age; (2) reduced responsiveness of the cells to the thyroid hormones; (3) inadequacy of the thyroid gland to produce or liberate its active principle but, so far, there has not been good evidence for impaired thyroid function in elderly persons; (4) reduced activity of the pituitary gland in stimulating the thyroid gland. It cannot be assumed, however, that the rate of cellular metabolism diminishes with increasing age.[1,28,30,31]

Summary

It is generally believed that there is no one process concerned in aging but rather aging is the end result of several processes. In an attempt to simplify and bring together the wide phases of the metabolic aspects of aging, two categories are set forth, both of which may be measured quantitatively. These are a (1) reduction in spontaneity of neural and physical response and (2) decreasing ability of the organism to adjust biochemically.

In the first category, a brief description of aging as manifested by clinical signs is set forth. It is also noted that a reduction in spontaneity of vital capacity may well be reflected in the metabolic changes in the nervous system. Besides the loss of nerve cells in the aging human brain, there are characteristic changes in the intercellular matrix, the glia, and the intracellular neurofibrils.

With senescence, there is a marked muscular atrophy consisting of a proportionate loss of intracellular elements and an increased prominence of extracellular components.

It is related how the energy-mass ratio (E/W) of cells may be used as a measure of aging and the part a change in this ratio plays in the metabolic aspects of aging. The part that hydration and dehydration play in aging is also discussed as well as processes or factors that interfere with elimination of metabolic waste products or that increase the amount of these products and their part in the aging process. Diet, as well as calcium increases, are mentioned as contributing to the aging process along with changes in basal metabolism accompanying old age.

References

1. Andrew, W.: Cellular Changes with Age. Springfield: Charles C Thomas, 1952. Publ. No. 127, American Lecture Series.
2. Benedict, H.: Senile Changes in the leaves of *Vitis vulpina L.* and certain other plants. Cornell Exper. Sta. Mem., 7:273-370, 1915.
3. Brownson, R.: Perineuronal satellite cells in the motor cortex of aging brains. J. Neuropath., 190-195 (April) 1956.
4. Bueger, M., and Schlomka, G.: Beitragesur physiologischer Chemie des Alterns der Gewebe. Ztschr. ges. exp. Med., 63:105, 1928.
5. Carrel, A.: The Problems of the Prolongation of Life. New York: Putnam, 1937.
6. Casten, G.: The effects of the aging process on acid-soluble phosphorous compounds in the myocardium of rats. Am. Heart J., 39:353 (Jan.) 1950.
7. Dhar, N.: Senescence, an inherent property of animal cells. Quart. Rev. Biol., 7:68-76, 1932.
8. Dublin, L., and Marks, H.: Overweight shortens life. Statist. Bull. Metrop. Life Insur. Co., 32:1-4, 1951.
9. Du Nouy, L.: Biological Time. London: Methuen and Co., Ltd., 1936.

10. Eichelberger, L., and Hastings, A.: The exchange of salt and water between muscle and blood. II. The effect of respiratory alkalosis and acidosis induced by overbreathing and rebreathing. J. Biol. Chem., 118:197, 1937.

11. Fazekas, J., and Alman, R.: The pathological physiology of cerebral metabolic disease. M. Clin. North American, 34:1801-1813 (Nov.) 1950.

12. Freeman, J.: Metabolic modifications with increasing age. Pennsylvania M. J., 58:483 (May) 1955.

13. Harman, D.: Aging: A theory based on free radical and radiation chemistry. J. Gerontol., 2:298-299 (July) 1956.

14. Hines, H., and Knowlton, G.: Electrolytes and water changes in muscle during atrophy. Am. J. Physiol., 120:719, 1937.

15. Korenchevsky, V.: Autointoxication and processes of aging. Texas Rep. Biol. & Med., 12:1006-1028, (Winter) 1954.

16. Kumnick, L.: Aging and the efficiency of the pupillary mechanism. J. Gerontol., 2:160-164 (April) 1956.

17. Lansing, A.: A transmissible, cumulative, and reversible factor in aging. J. Gerontol., 2:229-239 (July) 1947.

18. Lansing, A.: What is aging? Bull. New York Acad. Med., 32:5-13 (Jan.) 1956.

19. Lansing, A.: Increase of cortical calcium with age in the cells of *Elodea canadensis.* Biol. Bull., 2:385-397, 1942.

20. Lansing, A.: Increase of cortical calcium with age in the cells of the rotifer, *Euchalamis dilatata,* the Planarium, *Phagocata sp.* and the Toad, *Bufo fowleri,* as shown by the microinceration technique. Biol. Bull., 82:392-400, 1942.

21. Lansing, A., Rosenthal, T., and Kamen, M.: The effect of age on calcium binding in the mouse liver. Arch. Biochem., 20:125-130 (Jan.) 1949.

22. Lowry, O., and Hastings, A.: Quantitative histochemical changes in aging. *Cited in* Cowdry, E.: Problems of Aging. Baltimore: Williams and Wilkins Co., 1939.

23. Lowry, O., Hastings, A., Hall, T., and Brown, A.: Histochemical changes associated with aging. II. Skeletal and cardiac muscle in the rat. J. Biol. Chem., 143:271-280, 1942.

24. Lowry, O., and Hastings, A.: Quantitative histochemical changes in aging. *Cited in* Cowdry, E.: Problems of Aging. Baltimore: Williams and Wilkins Co., 1939.

25. Marinesco, G.: Mecanisme Chemical-colloidal de la Senilite et Mort Naturelle. C. Rend. Soc. Biol., 65:582, 1913.

26. Metchnikorff, E.: The prolongation of life. New York: Putnam, 1908.

27. O'Leary, J.: Aging in the nervous system. *Cited in* Cowdry, E.: Problems of Aging. Baltimore: Williams and Wilkins Co., 1939.

28. Oliver, J.: Anatomic changes of normal senescence. *In* Stieghtz, E. (editor): Geriatric Medicine. Ed. 3. Philadelphia: Lippincott Co., 1954.

29. Pearl, R.: The Biology of Death. Philadelphia: Lippincott, 1922.

MSMS
Annual Session
Program

Remove Colored Pages
for Handy Use

30. Rosale, R., and Roulet, F.: Mass und Zahl in der Pathologie. Berlin and Wien: Julius Springer, 1932.

31. Shock, N.: Metabolism and age. J. Chron. Dis., 2:687-700 (Dec.) 1955.

32. Soniat, T.: Histogenesis of senile plaques. Arch. Neurol. & Psychiat., 46:101-114, 1941.

33. Strobel, T.: Uber de Trockensubstantzgehalt verschniedener Hirnteile. Ztschr. ges. Neurol. Psychiat., 166:161, 1939.

34. Sulkin, N., and Kuntz, A.: Histochemical alteration in autonomic ganglion cells associated with aging. J. Gerontol., 7:533 (Oct.) 1952.

35. Weber, F.: Harnstoff-Permeabilitat Ungleich Alter Spirogyra-Zellen. Protoplasma, 12:129-140, 1931.

36. Weber, F.: Harnstoff-Permeabilitat Ungleich Alter Stomata-Zellen. Protoplasma, 14:75-82, 1932.

37. Weber, F.: Alkohol-resistenz Ungleich Alter Spirogyra Zellen. Protoplasma, 20:15-19, 1933.

38. Weitzmann, J.: Der Einfluss von Serum und Plasma junger und alter Menschen auf das Wachtum Menschlichen Embryonaler Gewebskulturen. Ztschr. f. Alterforschung., 2:81-87, 1940.

39. Worrall, R.: A measure of metabolic age. M. J. Australia, 1:259 (Feb. 19) 1955.

40. Yannet, H., and Darrow, D. C.: The effect of growth on the distribution of water and electrolytes in brain, liver, and muscle. J. Biol. Chem., 123:795, 1938.



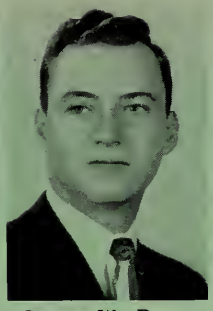
Harvey Blank, M.D.



Richard C. Connelly, M.D.



Ralph R. Cooper, M.D.



George W. Danz, M.D.



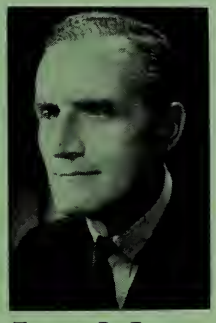
E. M. Dorr, M.D.



Robert L. Faulkner, M.D.



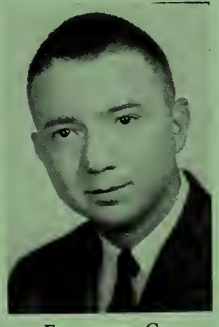
James A. Ferguson, M.D.



Thomas P. Findley, M.D.



Michael L. Furcolow, M.D.



Frederick G. Germuth, M.D.



Ralph S. Green, M.D.



Jerome A. Hilger, M.D.



James H. Hughes, M.D.



Lorand V. Johnson, M.D.

Annual Session Speakers 1959



Herbert I. Kallet, M.D.



Aaron B. Lerner, M.D.



Clarence S. Livingood, M.D.



Samuel Livingston, M.D.



Don W. McLean, M.D.



Carl Muschenheim, M.D.



H. Marvin Pollard, M.D.



Charles B. Puestow, M.D.



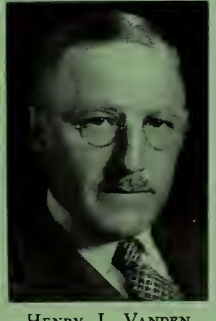
John A. Rose, M.D.



Ivan H. Smith, M.D.



Frederick C. Swartz, M.D.



Henry J. Vanden Berg, M.D.



Leo J. Wade, M.D.



John G. Young, M.D.

Michigan State Medical Society

Past Presidents, 1866-1957

1866—*C. M. Stockwell, Port Huron
1867—*J. H. Jerome, Saginaw
1868—*Wm. H. DeCamp, Grand Rapids
1869—*Richard Inglis, Detroit
1870—*I. H. Bartholomew, Lansing
1871—*H. O. Hitchock, Kalamazoo
1872—*Alonzo B. Palmer, Ann Arbor
1873—*E. W. Jenk, Detroit
1874—*R. C. Kedzie, Lansing
1875—*Wm. Brodie, Detroit
1876—*Abram Sager, Ann Arbor
1877—*Foster Pratt, Kalamazoo
1878—*Ed. Cox, Battle Creek
1879—*George K. Johnson, Grand Rapids
1880—*J. R. Thomas, Bay City
1881—*J. H. Jerome, Saginaw
1882—*Geo. W. Topping, DeWitt
1883—*A. F. Whelan, Hillsdale
1884—*Donald Maclean, Detroit
1885—*E. P. Christian, Wyandotte
1886—*Charles Shepard, Grand Rapids
1887—*T. A. McGraw, Detroit
1888—*S. S. French, Battle Creek
1889—*G. E. Frothingham, Detroit
1890—*L. W. Bliss, Saginaw
1891—*George E. Ranney, Lansing
1892—*Charles J. Lundy, Detroit
(Died before taking office)
*Gilbert V. Chamberlain, Flint
(Acting President)
1893—*Eugene Boise, Grand Rapids
1894—*Henry O. Walker, Detroit
1895—*Victor C. Vaughan, Ann Arbor
1896—*Hugh McColl, Lapeer
1897—*Joseph B. Griswold, Grand Rapids
1898—*Ernest L. Shurly, Detroit
1899—*A. W. Alvord, Battle Creek
1900—*P. D. Patterson, Charlotte
1901—*Leartus Connor, Detroit
1902—*A. E. Bulson, Jackson
1903—*Wm. F. Breakey, Ann Arbor
1904—*B. D. Harison, Sault Ste. Marie
1905—*David Inglis, Detroit
1906—*Charles B. Stockwell, Port Huron
1907—*Hermon Ostrander, Kalamazoo
1908—*A. F. Lawbaugh, Calumet
1909—*J. H. Carstens, Detroit
1910—*C. B. Burr, Flint
1911—*D. Emmett Welsh, Grand Rapids
1912—*Wm. H. Sawyer, Hillsdale
1913—*Guy L. Kiefer, Detroit
1914—*Reuben Peterson, Ann Arbor
1915—*A. W. Hornbogen, Marquette
1916—*Andrew P. Biddle, Detroit
1917—*Andrew P. Biddle, Detroit
1918—*Arthur M. Hume, Owosso
1919—*Charles H. Baker, Bay City
1920—*Angus McLean, Detroit
1921—*Wm. J. Kay, Lapeer
1922—*W. T. Dodge, Big Rapids
1923—*Guy L. Connor, Detroit
1924—*C. C. Clancy, Port Huron
1925—*Cyrenus G. Darling, Ann Arbor
1926—*J. B. Jackson, Kalamazoo
1927—*Herbert E. Randall, Flint
1928— Louis J. Hirschman, Detroit
1929—*J. D. Brook, Grandville
1930—*Ray C. Stone, Battle Creek
1931—*Carl F. Moll, Flint
1932— J. Milton Robb, Detroit
1933—*George LeFevre, Muskegon
1934—*R. R. Smith, Grand Rapids
1935— Grover C. Penberthy, Detroit
1936—*Henry E. Perry, Newberry
1937— Henry Cook, Flint
1938—*Henry A. Luce, Detroit
1939— Burton R. Corbus, Grand Rapids
1940— Paul R. Urmston, Bay City
1941— Henry R. Carstens, Detroit
1942— H. H. Cummings, Ann Arbor
1943—*C. R. Keynort, Grayling
1944—*A. S. Brunk, Detroit
1945—*V. M. Moore, Grand Rapids
(Died before taking office)
1945—*R. S. Morrish, Flint
1946— Wm. A. Hyland, Grand Rapids
1947—*P. L. Ledwidge, Detroit
1948— E. F. Sladek, Traverse City
1949— Wilfrid Haughey, Battle Creek
(President-for-a-Day, Sept. 21, 1949)
1949—*W. E. Barstow, St. Louis
1950— C. E. Umphrey, Detroit
1951— Otto O. Beck, Birmingham
1952— R. L. Novy, Detroit
(President-for-a-Day, Sept. 22, 1952)
1952— R. J. Hubbell, Kalamazoo
1953— L. W. Hull, Detroit
1954—*L. Fernald Foster, Bay City
(President-for-a-Day, Sept. 28, 1954)
1954—*R. H. Baker, Pontiac
1955— W. S. Jones, Menominee
1956— Arch Walls, Detroit
1957— G. W. Slagle, Battle Creek

*Deceased

OUTLINE OF 1959 ASSEMBLY AND SECTION SPEAKERS
94th ANNUAL SESSION MSMS
Grand Rapids, September 29-30-October 1-2, 1959

Time	Tuesday September 29, 1959	Wednesday September 30, 1959	Thursday October 1, 1959	Friday October 2, 1959
A.M. 9:00- 9:30		*Surgery* Charles B. Puestow, M.D. Chicago, Ill.	*Pediatrics* Samuel Livingston, M.D. Baltimore, Md.	*Medicine* Carl Muschenheim, M.D. New York, N. Y.
9:30-10:00		*Surgery* Vernon L. Guynn, M.D. Chicago, Ill.	*Occupational Medicine* Leo J. Wade, M.D. New York, N. Y.	*Medicine* (To be announced)
10:00-11:00		INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS
11:00-11:30	Registration begins at 10:00 A.M. on Tuesday	*Surgical Panel* *Moderator* Vernon L. Guynn, M.D. Chicago, Ill. H. Marvin Pollard, M.D. Ann Arbor, Michigan Charles Puestow, M.D. Chicago, Ill.	*Nervous & Mental Diseases* John A. Rose, M.D. Philadelphia, Pa.	*Public Health & Preventive Medicine* Michael L. Furcolow, M.D. Kansas City, Kansas
11:30-12:00			*Nervous & Mental Diseases* Howard P. Rome, M.D. Rochester, Minnesota	*Pathology* Frederick G. Germuth, Jr., M.D. Charlotte, N. C.
12:00-12:30		*Anesthesiology* Cyril B. Courville, M.D. Los Angeles, Calif.	*General Practice* John G. Young, M.D. Dallas, Texas	FINAL INTERMISSION TO VIEW EXHIBITS
P.M. 2:00- 2:30	*Obstetrics-Gynecology* Robert L. Faulkner, M.D. Cleveland, Ohio	*Dermatology* Aaron B. Lerner, M.D. New Haven, Conn.	*Biddle Lecture* Dr. Clarence Cook Little Ellsworth, Maine	TWO SECTION MEETINGS *Section on Public Health and Preventive Medicine* 9:30 to 10:30 A. M. Michael L. Furcolow, M.D. Kansas City, Kansas *Section on Pathology and Michigan Pathological Society* *2:00 p.m. meeting followed by reception and dinner* Frederick G. Germuth, Jr., M.D. Charlotte, N. C.
2:30- 3:00	*Obstetrics-Gynecology* Isadore Dyer, M.D. New Orleans, La.	*Ophthalmology* Lorand V. Johnson, M.D. Cleveland, Ohio	*Otolaryngology* Jerome A. Hilger, M.D. St. Paul, Minn.	End of 1959 Annual Session
3:00- 4:00	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	INTERMISSION TO VIEW EXHIBITS	
4:00- 4:30	*Radiology* Ivan H. Smith, M.D. London, Ont., Canada	*Urology* Tracy O. Powell, M.D. Los Angeles, Calif.	*Pediatrics* James H. Hughes, M.D. Memphis, Tenn.	
4:30- 5:00	*Obstetrics-Gynecology* Edward M. Dorr, M.D. Chicago, Ill.	*Dermatology* Harvey Blank, M.D. Miami, Fla.	*Medicine* Thomas P. Findley, M.D. Augusta, Ga.	
	TWO SECTION MEETINGS	FIVE SECTION MEETINGS	SEVEN SECTION MEETINGS	
5:00- 6:00	*Section on Obstetrics-Gynecology* Edward M. Dorr, M.D. Chicago, Ill.	*Section on Anesthesiology* Cyril B. Courville, M.D. Los Angeles, Calif.	*Section on Gastroenterology-Proctology* Panel on "Ulcerative Colitis" (See Program)	
	Section on Radiology & Detroit Roentgen Ray Society Ivan H. Smith, M.D. London, Ont., Canada	*Section on Dermatology-Syphilology* Clarence Livingood, M.D. Detroit, Mich.	*Section on General Practice* John G. Young, M.D. Dallas, Texas	
		Section on Opthalmology Lorand V. Johnson, M.D. Cleveland, Ohio	*Section on Medicine* Thomas P. Findley, M.D. Augusta, Georgia	
		Section on Surgery (To be announced)	*Section on Nervous & Mental Diseases & Michigan Society of Neurology & Psychiatry* (followed by reception & dinner) Howard P. Rome, M.D. Rochester, Minn.	
		Section on Urology & Detroit Branch, American Urological Society Tracy O. Powell, M.D.	*Section on Occupational Medicine* Leo J. Wade, M.D. New York, N. Y.	
			Section on Otolaryngology (followed by reception & dinner) Jerome A. Hilger, M.D. St. Paul, Minn.	
		7:00 p.m. Officers' Night Dinner Dance	*Pediatrics* (followed by reception & dinner) James H. Hughes, M.D. Memphis, Tenn.	
			9:30 p.m. to 12:30 a.m. State Society Night MSMS Entertainment	

Michigan State Medical Society

The Ninety-fourth Annual Session

PANTLIND HOTEL-CIVIC AUDITORIUM, GRAND RAPIDS

September 27-October 2, 1959

ANNUAL SESSION INFORMATION

DIRECTORY

Headquarters—Pantlind Hotel and Civic Auditorium, Grand Rapids

Registration—for House of Delegates: Sunday, September 27, 6:00 p.m., lobby of Pantlind Hotel.
for Scientific Session: Tuesday, September 29 through Friday, October 2, Civic Auditorium, Grand Rapids.

Hours:
Tuesday, September 29—10:00 a.m. to 5:15 p.m.
Wednesday, September 30—8:00 a.m. to 5:15 p.m.
Thursday, October 1—8:00 a.m. to 5:15 p.m.
Friday, October 2—8:00 a.m. to 1:30 p.m.

Press Rooms—for House of Delegates, Room 138, Pantlind Hotel
for Scientific Session, Room F and Vandenberg Room, Civic Auditorium

Woman's Auxiliary Headquarters—Pantlind Hotel

Michigan State Medical Assistants Society Headquarters —Manger Rowe Hotel

• **NO REGISTRATION FEE FOR MEMBERS OF MSMS AND OTHER STATE MEDICAL ASSOCIATIONS, AMA AND CANADIAN MEDICAL ASSOCIATION.**

Admission will be by badge only to all Scientific Assemblies, Section Meetings, and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA Membership card to expedite your registration. We wish to save your time.

• **MICHIGAN DOCTORS OF MEDICINE,** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them as dues in the Michigan State Medical Society, **FOR THE BALANCE OF 1959 ONLY,** provided they subsequently are accepted as members by the County Medical Society in whose jurisdiction they practice.

• **TELEPHONE SERVICE**—Special lines to handle local and long distance telephone service for registrants at the MSMS meetings are available in the Civic Auditorium just outside the Black and Silver Room: Glendale 1-9213; GLendale 1-9751, GLendale 1-9156. The telephone number at the Pantlind Hotel is GLendale 9-7201.

• **CHECK ROOM**—both in Civic Auditorium and Pantlind Hotel.

• **DINNER DANCE** — Officers' Night — Wednesday, September 30. Reception at 7:00 p.m. and dinner at 8:00 p.m., Pantlind Hotel. All registrants and their ladies are cordially invited (dress optional).

• **POSTGRADUATE CREDITS ARE GIVEN TO EVERY MSMS** member who attends the Annual Session.

• **JAMES W. LOGIE, M.D.,** Grand Rapids, is Chairman of the Committee on Arrangements for the 1959 Annual Session.



James W. Logie, M.D.



W. Wayne Babcock, M.D.

• **W. W. BABCOCK, M.D.,** Detroit, is Chairman of the Committee on Scientific Exhibits.

• **GUEST ESSAYISTS** are very respectfully requested not to change time of their lectures with another speaker without the approval of the Assembly Chairman. This request is made in order to avoid confusion and disappointment on the part of members of the audience.

• **TRANSPORTATION**—the C & O Streamliners afford a convenient means of transportation to the MSMS Annual Session in Grand Rapids for hundreds of physicians located in the southeastern and central parts of the State.

• **PARKING**—Metered parking on the streets surrounding the Pantlind Hotel and Civic Auditorium. Outside lots are available as follows:
1. Rear of Rowe Hotel (two blocks from Pantlind Hotel).
2. Campau Avenue parking lot (one and one-half blocks from Civic Auditorium).
3. Opposite Civic Auditorium.

• **CABARET-STYLE DANCE AND FLOOR SHOW,** with the compliments of the Michigan State Medical Society will be held in the Ballroom of the Pantlind Hotel, at 9:30 p.m., Thursday, October 1. All who register, and their ladies, are cordially invited to attend.

MICHIGAN MEDICAL SERVICE MEMBERS' SCHEDULE

Pantlind Hotel, Grand Rapids

Tuesday, September 29, 1959

Coincident with MSMS Annual Session

1:00 p.m. Luncheon—Continental Room
2:00 p.m. MMS Annual Meeting—Ballroom

All MSMS Delegates are members of Michigan Medical Service corporation and are expected to attend the MMS luncheon and Annual Meeting. The MMS Annual Meeting is open to ALL members of the medical profession, who are cordially invited to attend.

● **THE HOUSE OF DELEGATES PRESS RELATIONS COMMITTEE** is composed of: K. H. Johnson, M.D., Lansing, Chairman; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; and D. W. Thorup, M.D., Benton Harbor.

● **THE SCIENTIFIC PRESS RELATIONS COMMITTEE** is composed of: H. G. Benjamin, M.D., Grand Rapids, Chairman; F. S. Alfenito, Jr., M.D., Grand Rapids; N. L. Avery, Jr., M.D., Grand Rapids; A. B. Gwinn, M.D., Hastings; and C. L. Weston, M.D., Owosso.

● **THE MSMS HOUSE OF DELEGATES** convenes Sunday, September 27, at 8:00 p.m., Ballroom, Pantlind Hotel; it will hold its second and third meetings on Monday, September 28 at 9:00 a.m. and 8:00 p.m.; and its fourth and fifth meetings on Tuesday, September 29 at 9:00 a.m. and 8:00 p.m.

INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE WILL BE FOUND at the Michigan State Medical Society Annual Session. All subjects on the MSMS Annual Session Program are applicable to clinical medicine. They stress diagnosis and treatment in everyday practice.

● **THE HOLDER OF A HOTEL RESERVATION** who fails to show up . . . and fails to cancel his reservation . . . causes gastric hyper-peristalsis, hypersecretion of the hydrochloric acid, and rubus of the gastric mucosa to the hotel manager.

When convention reservations fill a hotel to the capacity, a room not occupied is a loss in $$$ that cannot be reclaimed.

The MSMS Annual Session always means a capacity house in the headquarters hotel.

Be kind to the hotel manager . . . be good to MSMS . . . be generous to your patients . . . be a friend to yourself—by showing up at the Pantlind Hotel, Grand Rapids, for the four days of the MSMS Annual Session.

ORDER YOUR HOTEL ACCOMMODATIONS—TODAY.

SECTION MEETINGS

TUESDAY, SEPTEMBER 29

Obstetrics-Gynecology
Radiology

WEDNESDAY, SEPTEMBER 30

Anesthesiology
Dermatology-Syphilology
Ophthalmology
Surgery
Urology

THURSDAY, OCTOBER 1

Gastroenterology-Proctology
General Practice
Medicine
Nervous and Mental Diseases
Occupational Medicine
Otolaryngology
Pediatrics

FRIDAY, OCTOBER 2

Pathology
Public Health and Preventive Medicine

NEW INFORMATION IN THE EXHIBIT

Many items of interest or education will be found in the large exhibit of 114 technical and 19 scientific displays. The Exhibit Section at MSMS Annual Sessions is as important, informative and desirable to most doctors of medicine as the scientific papers presented in the Assembly room.

Doctor, stop at every booth—you'll be surprised how much you'll learn" No high-pressure salesman but a courteous well informed exhibitor will greet you and supply you with some valuable information helpful to your patients.

● **PAPERS WILL BEGIN AND END ON TIME**—Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time and to close exactly on time in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

● **THE TECHNICAL AND SCIENTIFIC EXHIBITS** will open at 1:00 p.m. on Tuesday and at 9:30 a.m. on Wednesday, Thursday, and Friday; and close at 5:15 p.m., except on Friday when break-up is at 1:30 p.m. Frequent intermissions to view the educational exhibits have been arranged before, during, and after the Assemblies. Bring to the MSMS convention a "WANT LIST" of your needs and place an order with an MSMS exhibitor.

MEETINGS OF SPECIAL SOCIETIES AND ALUMNI GROUPS

TUESDAY, SEPTEMBER 29

MSMS Section on Radiology and Detroit Roentger Ray Society, 5:00 to 6:00 p.m. meeting in Room C Civic Auditorium.

Michigan State Hypnosis Society, 7:30 p.m. meeting in the Pantlind Hotel.

WEDNESDAY, SEPTEMBER 30

MSMS Section on Urology and Detroit Branch, American Urological Society, 5:00 to 6:00 p.m. meeting, Room G, Civic Auditorium.

THURSDAY, OCTOBER 1

Alpha Kappa Kappa breakfast-meeting, 7:30 a.m., Pantlind Hotel.

MSMS Section on Nervous and Mental Diseases and Michigan Society of Neurology and Psychiatry, 5:00 p.m. meeting, reception and dinner, Pantlind Hotel.

MSMS Advisory Committee of Past Presidents, 12:00 noon luncheon-meeting in the Pantlind Hotel.

Wayne State University College of Medicine Alumni Association, 6:00 p.m. cocktails in the Schubert Room of the Pantlind Hotel, followed by dinner at 7:00 p.m.

Michigan Branch, American Academy of Pediatrics, 6:00 p.m. reception and dinner-meeting in the Pantlind Hotel.

FRIDAY, OCTOBER 2

MSMS Section on Pathology and Michigan Pathological Society, meeting beginning at 2:00 p.m. and followed by reception and dinner in the Pantlind Hotel.

* * *

MICHIGAN DIABETES ASSOCIATION, INC.

October 2, 1959

Afternoon Session

Presiding Chairman—Clinical Society

2:00 P.M. Early Diagnosis of Diabetes—Stefan Fajans, M.D., Assistant Professor of Internal Medicine, University of Michigan, Ann Arbor

2:20 P.M. Eye Complications of Diabetes—John B. Bryan, M.D., Associate Physician, Henry Ford Hospital, Detroit

2:40 P.M. Neurological Complications of Diabetes—John Sterling Meyers, M.D., Professor and Chairman, Department of Neurology, Wayne University, College of Medicine, Detroit

INTERMISSION

(10 Minutes)

3:10 P.M. Planning the Diabetic Diet—Mary Harrington, M.A., Director of Dietetics, Harper, Hospital, Detroit

3:40 P.M. Practical Use of Oral Hypoglycemic Drugs—Frank Perkins, M.D.

4:00 P.M. Panel: Practical Management of Diabetes
Moderator—L. F. Segar, M.D.
William L. Lowrie, M.D.
George C. Thosteson, M.D.
Stefan Fajans, M.D.
Franklin W. Baske, M.D.

6:30 P.M. Cocktails

7:00 P.M. Dinner

All physicians interested in Diabetes and Metabolic Problems are cordially invited to attend both the afternoon and dinner meetings. Membership in the Michigan Diabetes Association, Inc., is not necessary.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

Thirty-third Annual Meeting
September 29-30 and October 1, 1959
Pantlind Hotel—Grand Rapids
Monday, September 28

PROGRAM

P.M.
2:00 to 4:00 Tour of Decorative Arts Center, Water's Building

Tuesday, September 29

12:00 Luncheon—Schubert Room
Planning Conference for District Directors, 1958-1959 and 1959-1960
Mrs. Paul Ivkovich, *Presiding*

P.M.
3:00 Executive Committee Meeting—Schubert Room
4:00 Meeting of 1958-59 and 1959-60 Committee Chairmen—Schubert Room

Wednesday, September 30

A.M.
9:30 Pre-Convention Board Meeting, for 1958-59 State Officers, Directors, Chairmen and County Presidents. Red Room—Civic Auditorium

10:00 Formal Opening of the 33rd Annual Meeting of the Woman's Auxiliary to the Michigan State Medical Society, Red Room—Civic Auditorium
Mrs. Robert E. Reagan, *Presiding*
(Delegates and Board Members will please register with the Roll Call Chairman at the door before the opening of each session, thus eliminating the need of an oral roll call.)

Invocation—Rev. Charles Fry—Aldersgate Methodist Church, Grand Rapids

Pledge of Allegiance to the Flag and Woman's Auxiliary Pledge—Mrs. E. Pearson

Address of Welcome—Mrs. Fred Brace, President, Kent County Auxiliary

Response—Mrs. Paul Ivkovich, First Vice-President, W.A. to M.S.M.S.

Introduction of Convention Chairman, Mrs. Horace Jones—Grand Rapids

Report of Roll Call Chairman

Convention Rules of Order

Presentation of Program

Announcements

Address of the President—Mrs. R. E. Reagan

Reports of Officers:
President-Elect—Mrs. Harold Gay
First Vice-President—Mrs. Paul Ivkovich
Second Vice-President—Mrs. Clarence Owen
Recording Secretary—Mrs. G. L. Hagelshaw
Corresponding Secretary—Mrs. F. Lindenfeld
Financial Secretary—Mrs. C. J. Stringer
Treasurer—Mrs. R. J. Himmelberger
(including the Auditor's report)

Report of the Finance Committee and presentation of 1959-60 budget)—Mrs. F. X. Krynicki,

Chairman

Unfinished Business

New Business

P.M.
12:30—Past Presidents' Luncheon—Honoring:

Mrs. Frank Gastineau, President of the Woman's Auxiliary to the AMA; Mrs. William Mackersie, President-Elect Woman's Auxiliary to the AMA; Past Presidents of the Woman's Auxiliary, MSMS; Representatives of MSMS

Kent State Room—Pantlind Hotel

Greetings: Milton A. Darling, M.D., President-Elect, MSMS

J. W. Logie, M.D., President, Kent County Medical Society

Mrs. Frank Gastineau, President, Woman's Auxiliary, AMA

Guest Speaker—Mrs. Paul G. Goebel, Grand Rapids

P.M.
2:30 Resume General Session
Red Room—Civic Auditorium

Address: Mrs. Frank Gastineau

County Reports: "This is What We Did In":

A.M.E.F.—Moderator—Mrs. M. Weed, Allegan - Bay - Clinton

Mental Health—Moderator—Mrs. W. Obenauf, Newaygo - Wayne - Wayne S.

"Today's Health"—Mrs. M. Patmos, Mason County

Social—TB Speaking—Ways and Means, Lenawee - Marquette-Alger - Calhoun

P.M.
6:30 Officers' Night Dinner Dance
Ballroom—Pantlind Hotel

Thursday, October 1

A.M.
9:30 General Meeting of the Woman's Auxiliary to the Michigan State Medical Society—Mrs. Robert E. Reagan, presiding

Convention Announcements

Report of Registration and Credentials Committee

In Memoriam Service—Mrs. A. C. Stander

County Reports continued:

Community Service—Mrs. Paul Ivkovich, Delta-Schoolcraft - Genesee - Grand Traverse - Lapeer - Livingston - Mecosta-Osceola-Lake - Monroe - Muskegon - Saginaw - St. Clair

Membership—Mrs. Harold Gay, Jackson - Kent - Newaygo - Sanilac

Program—Mrs. Clarence Owen, Ingham - Kalamazoo - Macomb - Oakland - St. Joseph - Washtenaw

Recruitment—Mrs. Don Young, Berrien - Branch - Clinton - Dickinson-Iron - Eaton - Kent - Midland - Tuscola

Report of Resolutions Committee

Report of Nominating Committee—Mrs. C. Allen Payne, Chairman

Election of Officers

Final Report of Registration and Credentials Committee

Meeting of Executive Committee 1959-1960—Mrs. Harold Gay, Presiding

P.M.
12:30—Inaugural Luncheon—Kent State Room

Installation of Officers—Mrs. J. Earl McIntyre—Past President

Presentation of Past President's Pin—Mrs. C. Allen Payne

Presentation of President's Pin and Gavel—Mrs. Robert E. Reagan

Inaugural Address—Mrs. Harold Gay

Adjournment

Post Convention Board Meeting for all 1959-1960 Officers, District Directors. Chairmen and County Presidents immediately following adjournment of Annual Meeting. Mrs. Harold Gay, Presiding

P.M.
9:30 to 12:30 A.M. State Society Night—Ballroom—Pantlind Hotel
Host: Michigan State Medical Society

HOTEL RESERVATIONS
MICHIGAN STATE MEDICAL SOCIETY

94th Annual Session

Grand Rapids, September 27-October 2, 1959

The reservation blank below is for your convenience in making your hotel reservation in Grand Rapids. Please send your application to Jack Ament, Secretary, Committee on Hotels for MSMS Convention, Pantlind Hotel, Grand Rapids, Michigan. Mailing your application now will be of material assistance in securing hotel accommodations.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

— — — — — — — — — — — — — — — — — —

Jack Ament, Secretary
Committee on Hotels,
Michigan State Medical Society
c/o Pantlind Hotel
Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

———— Single Room(s) ————persons

———— Double Room(s) for ————persons

———— Twin-Bedded Room(s) for ———persons

Arriving September ———hour———A.M.———P.M.

Leaving ————hour———A.M.———P.M.

Hotel of First Choice: ————————————

Second Choice: ————————————

Names and addresses of all applicants including persons making reservations:

Name	Address	City	State

Date ———— Signature ————————

Address ———————— City ————

Michigan State Medical Society

The Ninety-fourth Annual Session

PANTLIND HOTEL — CIVIC AUDITORIUM, GRAND RAPIDS
September 27—October 2, 1959

TUESDAY AFTERNOON

September 29, 1959

First Assembly

Black and Silver Room, Civic Auditorium

2:00 P.M.

"Diagnosis of Lesions of the Uterine Cervix"

ROBERT L. FAULKNER, M.D., Cleveland, Ohio
Associate Professor of Obstetrics and Gynecology, Western Reserve University Medical School; Secretary-Treasurer, American Board of Obstetrics and Gynecology

Next to the female breast the uterine cervix is the most common site of cellular changes or actual carcinoma. Various types of benign lesions frequently precede, and are associated with, the more serious. Modern methods of diagnosis have taken most of the guess-work out of cervical examination and follow-up. The application of some of these methods is discussed. With the application of new methods some special social and medical problems have been created and these are in part outlined from the standpoint of handling the patient clinically.

2:30 P.M.

"Premature Separation of the Placenta—Considerations in Diagnosis and Present-day Treatment"

ISADORE DYER, M.D., New Orleans, Louisiana
Professor of Obstetrics, Tulane University School of Medicine

With the recognition of the frequency of premature placental separation associated with the toxemias of pregnancy one should be on the lookout of this entity. Often the early diagnosis is obscure and only when the condition has worsened and begins to seriously jeopardize the host, may one begin to recognize its presence. Since fetal death may occur early, medical management might be selected only to further compromise the mother.

However, in the experiences at Tulane University, (a ten year appraisal will be presented), we have need to adjust our thinking and management in order to lower maternal mortality.

The material presented will describe this evolution citing 214 patients collected from approximately 40,000 deliveries. Defibrinization, afibrionogeneunia, its recognition and management will also be discussed.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"Positive Aspects of Cobalt^{60} Beam Therapy"

IVAN H. SMITH, M.D., London, Ontario, Canada
Director, The Ontario Cancer Foundation, London Clinic

This presentation is based on the study of cobalt^{60} beam therapy in epidermoid cancer, including larynx, oral cavity, esophagus, and bladder. Traditionally it is the epidermoid malignancy that shows a basic type of radio-sensitivity related in many instances to grade, and of course, to extent. Using this group therefore, observations have been made indicating wherein the monochromatic beam of cobalt^{60} reveals improvement in management over conventional forms of external irradiation therapy. Observations will be made on mucosal and skin reactions, patient tolerance, complications; indications, and statistical results of lesions treated in the early days of cobalt^{60} (1951-55) will be presented.

4:30 P.M.

"An Attempt to Solve Our Increasing Medico-Legal Problem"

EDWARD M. DORR, M.D., Chicago, Illinois

Associate Professor, Northwestern University Medical School, Senior Attending Physician, Chicago Wesley Memorial Hospital.

A discussion of the ever-increasing lawsuits, which not only involve the physician, but also the hospitals.

The procedure for establishing medico-legal committees, in hospitals, with proper representation.

The importance of a committee, under the supervision of your State Medical Society, to establish a list of specialists to which these cases can be referred, for examination and opinion.

5:00 P.M.

END OF FIRST ASSEMBLY

WELL-KNOWN GUEST SPEAKERS

INTERESTING SECTION MEETINGS

OUTSTANDING EXHIBITS

You'll find them all

at the MSMS Annual Session

(Turn to Page 1113)

TUESDAY AFTERNOON

September 29, 1959

Program of Sections

Section on Obstetrics and Gynecology

5:00 to 6:00 P.M.

Black and Silver Room, Civic Auditorium

Chairman: L. S. Griffith, M.D., Grand Rapids
Secretary: W. R. Moore, M.D., Detroit

"Conservation of the Human Ovary"

Edward M. Dorr, M.D., Chicago, Illinois

The unnecessary removal of ovaries, in women, during the child-bearing period.

The resection of ovaries, and those that should not be resected.

The unnecessary removal of ovaries in women, after the age of forty.

Section on Radiology and Detroit Roentgen Ray Society

5:00 P.M. Meeting followed by Reception and Dinner

Room G, Civic Auditorium

Chairman: Bernard J. Kalayjian, M.D., Detroit

"Cobalt^{60} in the Treatment of Oral Carcinoma"

Ivan H. Smith, M.D., London, Ontario, Canada

A review will be made of the first 50 oral cases treated radically by cobalt^{60} beam therapy (1952-55) in The Ontario Cancer Foundation, London Clinic. Special attention will be paid to time-dose relationship in comparison particularly with conventional therapy. A comparison will be made between the kilocurie and the rotational hectocurie cobalt^{60} units in planning out management for representative lesions of different intra-oral sites. Isodose comparisons will be made between fixed beam direction on the kilocurie unit, and rotation, or multiple fields by means of light direction with the hectocurie plant. The subject of wedge filters will be introduced and trends in the management of specific sites will be emphasized.

WEDNESDAY MORNING

September 30, 1959

Second Assembly

Black and Silver Room, Civic Auditorium

9:00 A.M.

"Surgical Lesions of the Esophagus"

Charles B. Puestow, M.D., Chicago, Illinois

Chief, Surgical Service, Veterans Administration Hospital, Hines, Illinois; Attending Surgeon, Illinois Research and Educational Hospitals; Senior Surgeon, Henrotin Hospital; Associate Attending Surgeon, Presbyterian Hospital of Chicago

9:30 A.M.

"The Use of the Interposition of a Segment of Colon or Jejunum for Replacement in Carcinoma of the Esophagus or Stomach"

Vernon L. Guynn, M.D., Chicago, Illinois

Clinical Instructor in Surgery, University of Illinois

Carcinoma of the thoracic esophagus is resected and reconstruction made by the use of the right colon in a two-stage procedure. Not only is the operative mortality and morbidity reduced, but the postoperative difficulties of regurgitative esophagitis and fibrous stenosis have been greatly reduced.

The use of the interposed segment of jejunum for lower esophageal lesions and in total gastrectomies will also be discussed.

Case reports to bring out advantages and also certain technical problems will be presented.

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

Surgery Panel on "Pancreatic and Biliary Disease"

Vernon L. Guynn, M.D., Chicago, Illinois

H. Marvin Pollard, M.D., Ann Arbor, Michigan

Professor of Internal Medicine, University of Michigan Medical School; Regent, American College of Physicians

Charles B. Puestow, M.D., Chicago, Illinois

MUCH THAT IS NEW AND USABLE

WILL BE FOUND IN THE

MSMS EXHIBIT

12:00 M. (Subject to be announced)

CYRIL B. COURVILLE, M.D., Los Angeles, California

12:30 P.M.

END OF SECOND ASSEMBLY

OFFICERS NIGHT DINNER DANCE

Wednesday, September 30

Sponsored by the

Michigan State Medical Society

and the

Woman's Auxiliary

Continental Room

and

Ballroom

Pantlind Hotel

WEDNESDAY AFTERNOON

September 30, 1959

Third Assembly

Black and Silver Room, Civic Auditorium

2:00 P.M.

AARON B. LERNER, M.D., New Haven, Connecticut

Professor of Medicine (Dermatology); Head of Section of Dermatology, Yale University School of Medicine

2:30 P.M.

"Ocular Complications of Diabetes"

LORAND V. JOHNSON, M.D., Cleveland, Ohio

Professor of Ophthalmology, Western Reserve University School of Medicine; Ophthalmologist in Charge, University Hospitals of Cleveland

Following the introduction of the ophthalmoscope, 100 years ago, by Helmholz, descriptions of the ocular fundus of diabetic retinopathy were recorded. Notwithstanding the enormous literature on diabetes during the past 100 years, or the great advances made in the control of diabetics, the appearance of these fundus lesions remains unchanged. Diabetic retinopathy remains one of the major causes of blindness today. The onset of diabetic capillary aneurysms is related to duration of disease. It is not known whether the aneurysms represent abortive buds for capillary proliferation caused by local anoxia, or back pressure from partial obstruction caused by proliferative endothelial changes, or some chemical or hormonal influence. The expected findings of diabetic capillary retinal aneurysms at twenty years duration is frequently associated with neuropathy, and usually precedes, by a few years, the clinical evidences of Kimmelsteil-Wilson nephropathy. A longer delay in the occurrence of clinical hypertension and albuminuria is fortunate for the patient with early diabetic retinopathy, because these kidney changes are concurrent with more rapid development of proliferative and exudative changes in the retina. A duration of life of about seven years is common years after stage three, proliferative retinopathy, has developed. Prognostic assistance in the management of diabetes is available to the internist who will closely follow these retinal findings by routine opthalmoscopic examinations.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"Common Disorders of the Genito-Urinary Tract in Children"

TRACY O. POWELL, M.D., Los Angeles, California

Associate Professor, College of Medical Evangelists; Director, Los Angeles Urologic Research Congress

4:30 P.M.

"The Septemic Treatment of Cutaneous Fungous Infections"

HARVEY BLANK, M.D., Miami, Florida

Professor of Medicine (Dermatology), University of Miami School of Medicine; Chairman of Dermatology Service, Jackson Memorial Hospital

Griseofulvin when administered by mouth regularly causes clearing of skin, hair, and nail lesions caused by any species of the genera Trichophyton, Microsporon and Epidermophyton. It does not influence any of the deep mycoses nor Candida albicans infections. Grieseofulvin is a stable white powder derived by fermentation from several species of Penicillium but is chemically unrelated to penicillin. It is surprisingly well tolerated in patients of all ages. The only adverse effects are occasonal diarrhea or headache, which disappear on continued administration, and, rarely, urticaria.

A dose of 1.0 gm. a day given until the lesions have resolved is effective and in many instances 0.75 or 0.50 gm. a day is sufficient. Skin lesions should be treated until the skin is smooth, usually 1-3 weeks. Scalp infections should be treated for 3 weeks or longer, whereas infected fingernails require 4 months and toenails 6 months of treatment. Relapse of skin lesions may occur if infected nails are inadequately treated. Resistant organisms do not appear. A favorable clinical response is so uniform that failure suggests a complication such as concomitant Candida albicans or Pseudomonas infection (especially of nails or feet) or another underlying skin disease such as eczematous dermatitis, hyperidrosis, psoriasis, etc.

5:00 P.M.

END OF THIRD ASSEMBLY

A "REFRESHER COURSE" OF GREAT VALUE TO PRACTITIONERS—THAT'S THE MSMS ANNUAL SESSION!

* * *

EVERYONE YOU KNOW IS VIEWING THE EXHIBITS—JOIN THEM!

WEDNESDAY AFTERNOON
September 30, 1959

Program of Sections

Section on Anesthesiology

5:00 to 6:00 P.M.

Room E, Civic Auditorium

Chairman: G. C. FREDERICKSON, M.D., Detroit

(Subject to be announced)

CYRIL B. COURVILLE, M.D., Los Angeles, California

Section on Dermatology-Syphilology

5:00 to 6:00 P.M.

Room D, Civic Auditorium

Chairman: R. H. GREKIN, M.D., Kalamazoo
Secretary: ALICE E. PALMER, M.D., Detroit

"Antibiotic Resistant Staphylococcal Infections of the Skin"

CLARENCE S. LIVINGOOD, M.D., Detroit, Michigan

Chairman, Dermatology Department, Henry Ford Hospital

Section on Ophthalmology

5:00 P.M. (Meeting)

6:30 P.M. (Reception and Dinner)

Sadler Lounge, Pantlind Hotel
Chairman: F. A. BARBOUR, M.D., Flint
Secretary: P. L. CUSICK, M.D., Detroit

"Management of Bullous Keratopathy"

LORAND V. JOHNSON, M.D., Cleveland, Ohio

Recent research has quite clearly elucidated the role of the corneal endothelium in the transfer of water and electrolytes from the cornea into the anterior chamber. Conditions which impair

endothelial function are followed by corneal turgescence, the accumulation of electrolytes in the stroma to the point that the tissue fluid becomes hypertonic to the salt content of the precorneal mucous film. Osmosis results in the development of corneal blebs and vessicles, a condition described as bullous keratopathy.

Damage to the secretory function of the corneal endothelium may be clinically caused by: cornea guttata, precipitated protein membrane following uveitis, hyaloid or lens capsule in contact with the endothelium, trauma to the endothelium from capsule forceps, or from greatly increased intraocular pressure especially when there has been partial damage to the corneal endothelium from any of the previously mentioned conditions.

Evaporation of the precorneal mucous film will increase the salt content slightly, providing the diluting effect from tears has been decreased or inhibited. Such an increase in the electrolyte content of the precorneal mucous film will reverse the osmosis, allowing the fluid to pass from the blebs into the precorneal mucous film for evaporation, in patients whose endothelial damage has not been too severe. Recommended for depressing lacrimal function are x-ray therapy to the lacrimal gland, or neurectomy of the greater superficial petrosal nerve. These procedures should be instituted before reflex epiphora from the ruptured blebs has caused hypertrophy of the lacrimal gland, and before the corneal epithelium has become necrotic from long-standing bullous keratopathy. In severe endothelial damage evaporation appears incapable of sufficiently elevating the electrolyte content of the precorneal mucous film to completely dehydrate the blebs by osmosis. In these advanced corneae, it is frequently possible however to sufficiently reduce the size of the vessicle so that rupture of the blebs and reflex epiphora does not remain troublesome to the patient.

Section on Surgery

5:00 to 6:00 P.M.

Red Room, Civic Auditorium

Chairman: C. O. Benson, M.D., Detroit

Secretary: E. A. Osius, M.D., Detroit

(Subject and speaker to be announced)

Section on Urology and Detroit Branch, American Urological Society

5:00 to 6:00 P.M.

Room G, Civic Auditorium

Chairman: Wm. Bromme, M.D., Detroit

Secretary: A. W. Bohne, M.D., Detroit

"Certain Surgical Problems of the Bladder with Particular Emphasis on Vesical Extrophy"

Tracy O. Powell, M.D., Los Angeles, California

WEDNESDAY EVENING

September 30, 1959

Officers Night

7:00 P.M.

Reception—Continental Room, Pantlind Hotel

8:00 P.M.

Officers Night Dinner Dance—Ballroom, Pantlind Hotel

Hugh W. Brenneman, Lansing, Toastmaster

1. **Announcements and brief report of House of Delegates actions**
2. **Induction of New Officers**
3. **President's Annual Address by G. B. Saltonstall, M.D., Charlevoix**
4. **Address of the evening**

   (Subject and speaker to be announced)

HOTEL RESERVATIONS

for the

94th ANNUAL SESSION

MSMS

should be made

NOW

THURSDAY MORNING

October 1, 1959

Fourth Assembly

Black and Silver Room, Civic Auditorium

9:00 A.M.

"The Treatment of Epilepsy in Children"

SAMUEL LIVINGSTON, M.D., Baltimore, Maryland

Assistant Professor of Pediatrics, Johns Hopkins University Medical School; Director, Children's Epilepsy Clinic, Johns Hopkins Hospital

The ideal objective in the treatment of epilepsy is the complete control of seizures and provisions for a normal physical, mental and social development. However, both the physician and the patient and/or parents must realize that in some cases it is impossible to obtain this goal and one must be satisfied with a decrease in frequency of seizures to the extent that they do not interfere with the general well-being of the patient.

The therapy of epilepsy may be divided into three major headings: medical, social and surgical. The medical treatment may be subdivided into two specific classifications: drug therapy and the ketogenic diet. This present discussion deals only with drug therapy.

The following are the general principles of drug therapy which are employed in our epilepsy clinic:

1. Treatment should be started as soon as the diagnosis has been established. This is the most important aspect of the treatment of epilepsy. In most cases, the degree of success in controlling seizures bears a direct relation to the duration of the epilepsy: the longer the epilepsy has continued, the less likely is it that a satisfactory result will be obtained, regardless of the type of therapy instituted. In addition, it is important that a recurrence of seizures, particularly those of long duration, be prevented because such seizures can produce irreversible cerebral damage.
2. The selection of the drug of first choice for the treatment of any case of epilepsy depends on the type of seizure. Some anticonvulsants are more effective in controlling certain types of seizures; on the other hand, some drugs often increase the frequency of certain types of seizures.

For example, phenobarbital and Dilantin are particularly effective in controlling major motor seizures, but frequently accentuate petit mal seizures. Tridione, on the other hand, is an effective agent for petit mal but sometimes precipitates major motor seizures or increases their frequency in pre-existing major motor epilepsy.

Many drugs are now being used for the treatment of the various types of epileptic seizures. The drug of first choice for any given case should be selected on the basis of its relative effectiveness, toxicity, and cost.

3. Treatment should begin with one drug. Other drugs should be prescribed, if necessary, only after it has been determined that the maximal tolerated dosage of the starting drug failed to produce a satisfactory clinical response.
4. The therapeutic dosage of anticonvulsants varies with the patient. The proper dosage for any given patient is one which controls his seizures without producing untoward reactions which interfere with his general well-being. Dosage should not be increased to the point where the patient is so dull that he is more incapacitated by the administration of the drug than by the seizures themselves. The ideal goal in the treatment of epilepsy is to attain a complete control of seizures. The drug dosage necessary for complete control of seizures may, in some patients, produce unpleasant reactions, such as drowsiness, which are more of a handicap than the seizures themselves. Some patients may be better off leading a normal life between occasional seizures than living seizure-free in a perpetual state of drug-induced drowsiness and confusion.
5. The medication should be taken daily, at the same dosage which controlled the seizures, for at least four years after the last seizure. If the four-year period of freedom from seizures should coincide with the onset of puberty, the medication should be continued throughout the adolescent period. This is particularly important in the case of girls.
6. The medication should be discontinued very gradually. Following the four-year period of freedom from seizures, dosage should be reduced gradually over an interval of one to two years. A sudden withdrawal of anticonvulsants, especially phenobarbital, is a frequent cause of recurrence of seizures or status epilepticus. Dosage should be increased immediately to the original level if there should be a recurrence of seizures during the period of reduction.
7. All patients receiving certain drugs such as Mesantoin, Tridione, and Paradione should have periodic physical and laboratory examinations: complete blood counts, urine analysis and liver function tests.

9:30 A.M.

"The Private Practitioner and the Physician in Industry"

LEO J. WADE, M.D., New York, New York

Medical Director, Esso Standard Oil Company

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"Recognition and Office Management of Emotional Disorders of Children"

JOHN A. ROSE, M.D., Philadelphia, Pennsylvania

Director, Philadelphia Child Guidance Clinic; Child Psychiatrist-in-Chief, Department of Child Psychology, Children's Hospital of Philadelphia; Associate Professor of Psychiatry, School of Medicine, University of Pennsylvania

11:30 A.M.

"The Problem of Pain"

HOWARD P. ROME, M.D., Rochester, Minnesota

12:00 M.

"Emotional Problems of the Teen Agers and Their Parents"

JOHN G. YOUNG, M.D., Dallas, Texas

Clinical Professor of Pediatrics, S. W. Medical School of University of Texas; Chief of Staff, Baylor University Hospital and Texas Children's Hospital

Adolescents are problems and have problems. This period needs to be defined in time and also in emotional maturity for not all pass through it, finish it, at the same age; too bad to be permanently rooted in this period—God forbid!

Properly evaluating it in the span of life and viewing it as just one more stage of life is a wholesome attitude and may itself help solve some problems and prevent friction—and isn't oiling needed at this time?

There are some great urges that occur in this period and they are very real, even if not always labeled or recognized. These urges are spoken of and dwelt upon for a short time and even some examples are given and the innate causes nominated.

The parents of these wonderful people and their attitudes are brought into the light and lightly roasted. The attitudes that bring to the children a sense of security are enumerated and even stressed a little. An attempt is made to give a positive approach toward guidance of the parents of these lovable "problem" children.

A wholesome family life wherein parents love each other and their offspring is even discussed, hopeful that the older generation may with lackadaisical seriousness, honest earnestness and understanding loving kindness bridge over this period that is just frequently a rough spot on the smooth pavement of a continuing development.

12:30 P.M.

END OF FOURTH ASSEMBLY

THURSDAY AFTERNOON

October 1, 1959

Fifth Assembly

Black and Silver Room, Civic Auditorium

2:00 P.M.

The Andrew P. Biddle, M.D., Lecture

DR. CLARENCE COOK LITTLE, Ellsworth, Maine

Director Emeritus, Johnson Memorial Laboratory; Scientific Director, Tobacco Industry Research Commission

"Some Biological Considerations in Chronic Disease"

2:30 P.M.

"Mass in the Neck"

JEROME A. HILGER, M.D., St. Paul, Minnesota

Clinical Professor of Otolaryngology, University of Minnesota Medical School

The implications of a mass in the neck vary with age and cervical location, with size and consistency, and with duration and singularity. The only safe assumption initially is that the mass is secondary to disease elsewhere. A thorough general medical assessment and blood evaluation are the first requisites.

The survey of the oropharyngeal and upper respiratory tracts must be done with unusual care. Removal of a lateral cervical mass ("node plucking") for diagnosis is unwise unless it has been preceded by uninformative needle aspiration biopsy and, sometimes, nasopharyngeal biopsy. This discussion seeks to amplify and illustrate these points.

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"Practical Approach to Behavior Problems in Children"

JAMES H. HUGHES, M.D., Memphis, Tennessee

Professor of Pediatrics, University of Tennessee; State Chairman (Tennessee), American Academy of Pediatrics

General practitioners and pediatricians need to become more interested in the psychologic aspects of children, not only from the standpoint of differential diagnosis when psychosomatic illness mocks organic disability, but also because behavior problems in children are too often neglected. The speaker discusses the basic emotional needs of children, parental attitudes, other important factors in the child's emotional life, and indicates a practical approach to the management of these difficulties.

4:30 P.M.

"Metabolic Dysfunctions of the Kidney"

THOMAS P. FINDLEY, M.D., Augusta, Georgia

Professor of Medicine; Chairman, Department of Medicine, Medical College of Georgia

The resorption of glomerular filtrate entails an enormous amount of molecular traffic across the renal tubule, defects in the transportation of which can lead to a wide variety of clinical syndromes. Some of them resemble endocrine diseases but are due in fact to variations in organ response to normal hormone output. A brief survey of the field will be presented with particular attention to the recognition of diseases attributable to the tubular resorption of protein, amino acids and inorganic ions. Evidence will also be given that the nephrotic kidney not only excretes protein but destroys it at a rapid rate.

5:00 P.M.

END OF FIFTH ASSEMBLY

THURSDAY AFTERNOON

October 1, 1959

Program of Sections

Section on General Practice

5:00 to 6:00 P.M.

Room G, Civic Auditorium

Chairman: C. W. ROYER, M.D., Battle Creek
Secretary: J. M. MCGOUGH, M.D., Detroit

"Why Not Rear Happy Children"

JOHN G. YOUNG, M.D., Dallas, Texas

Children should be happy in the true and lasting sense; in oneself, the family and in society. This goal is perhaps idealistic but it is believed it is very frequently attainable. This goal during childhood development and into maturity is discussed. Some points are developed and examples and urges are spoken of that play a part in developing emotional maturity. The child should be managed, guided and treated toward that end, that he may not lack too great adjustment and too great happiness—not conformity and yet not the "Progressive" idea of no restraint is spoken of.

The, at times, fearful earliness of these problems and their manifestations and suggested guidance is given.

The part parents, siblings and others play in the influencing of children toward a happy life is discussed. The dependable parents and environment and their influence on security in the developing emotional pattern is emphasized and the results of "pressure" put on children, often to their detriment, are mentioned.

The "Delinquent Problem" is not solved in this talk but an approach is made along certain seemingly sound and common sense principles, and some causes are gone over. Preventions in psychological and phychiatric approaches are stressed to a small extent. The positive approach toward good guidance in the home and the child's society is the aim talked about. Something will be said about family and family loving as one of these positive factors.

Section on Gastroenterology-Proctology

5:00 to 6:00 P.M.

Room D, Civic Auditorium

Chairman: J. F. WENZEL, M.D., Detroit
Secretary: R. R. COOPER, M.D., Detroit

Panel on: "Ulcerative Colitis"

HERBERT I. KALLET, M.D., Detroit, *Moderator*

Panelists:

RICHARD C. CONNELLY, M.D., Detroit

Clinical Assistant Professor of Medicine, Wayne State University College of Medicine

RALPH R. COOPER, M.D., Detroit

DON W. MCLEAN, M.D., Detroit

Chief of Surgery, Grace Hospital; Associate Surgeon, Chief of Proctology, Receiving Hospital

JAMES A. FERGUSON, M.D., Grand Rapids

Senior Attending Staff, Ferguson-Droste-Ferguson Hospital; Courtesy Staff, Butterworth and St. Mary's Hospitals; Visiting Staff, Blodgett Hospital; FACS, DABS, DABP (Proctology)

Section on Medicine

5:00 to 6:00 P.M.

Black and Silver Room, Civic Auditorium

Chairman: G. T. McKean, M.D., Detroit
Secretary: J. J. Lightbody, M.D., Detroit

"Diagnostic and Therapeutic Dilemmas in Bright's Disease"

Thomas P. Findley, M.D., Augusta, Georgia

Professor and Chairman, Department of Medicine, Medical College of Georgia

The differentiation between the various causes of renal insufficiency is a difficult clinical challenge; interpretation of information obtained from history-taking, physical examination, urine analysis, renal proteinemia, proteinuria, hyponatremia, hypertension, acidosis, et cetera, present a host of dilemmas, resolution of which will be attempted.

Section on Nervous and Mental Diseases and Michigan Society of Neurology and Psychiatry

5:00 P.M. (Meeting)

6:00 P.M. (Reception and Dinner)

Sadler Lounge, Pantlind Hotel

Chairman: S. M. Gould, Jr., M.D., Ann Arbor
Secretary: R. A. Jaarsma, M.D., Flint

"Gerontophobia: The Problem of Aging"

Howard P. Rome, M.D., Rochester, Minnesota

Section on Occupational Medicine

5:00 to 6:00 P.M.

Red Room, Civic Auditorium

Chairman: T. I. Boileau, M.D., Birmingham
Secretary: Wm. Jend, Jr., M.D., Detroit

"Are Periodic Health Examinations Worthwhile?"

Leo J. Wade, M.D., New York, N. Y.

Section on Otolaryngology

5:00 P.M. (Meeting)

6:00 P.M. (Reception and Dinner)

Rooms 322-324, Pantlind Hotel

Chairman: H. F. Schuknecht, M.D., Grosse Pointe
Secretary: J. E. Magielski, M.D., Ann Arbor

"The Treatment of Maxillo-Ethmoidal Carcinoma"

Jerome A. Hilger, M.D., St. Paul, Minnesota

The focus of treatment of maxillo-ethmoidal cancer has been largely on the primary. Today a truly total maxillectomy is an average achievement. The metastatic extension of these cancers prohibits further improvement in cure rate until more effort is directed toward control of metastatic involvement. An effort in this direction is described in conjunction with the treatment of the primary.

Section on Pediatrics

5:00 P.M. (Meeting)

6:00 P.M. (Reception and Dinner)

Room 222, Pantlind Hotel

Chairman: G. E. Hause, M.D., Detroit
Secretary: H. T. Knobloch, M.D., Bay City

"Treatment of the Epileptic Child"

James H. Hughes, M.D., Memphis, Tennessee

Comprehensive evaluation of the epileptic child is necessary in order to afford proper treatment for all aspects of the problem. Treatment involves: (1) use of drugs to subdue seizures; (2) prevention or correction of psychologic distortion; (3) advice concerning hygiene and diet; (4) in selected cases neurosurgical attack on the epileptogenic focus. The speaker discusses these four facets of therapy.

THURSDAY EVENING

October 1, 1959

State Society Night

9:30 P.M.

Ballroom, Pantlind Hotel

An evening of entertainment for all registrants, their ladies and guests. Carabet-style Dance and Floor Show. Host: Michigan State Medical Society

FRIDAY MORNING

October 2, 1959

Sixth Assembly

Black and Silver Room, Civic Auditorium

9:00 A.M.

"The Growing Importance of Pulmonary Heart Disease as a Cause of Congestive Failure"

CARL MUSCHENHEIM, M.D., New York, New York

Attending Physician, New York Hospital; Associate Professor of Clinical Medicine, Cornell University Medical College

Cor Pulmonale is becoming a constantly more frequent cause of congestive heart failure. Estimates in the United States and from abroad suggest that in at least a third of cases of congestive failure this is the primary cause. In addition, pulmonary heart disease is a contributory cause of heart failure in many patients with other forms of heart disease.

Pulmonary heart disease is a complication of many kinds of pulmonary disease in which pulmonary insufficiency is a feature, causing strain directly on the right side of the heart. The increased morbidity from these causes is related, at least in part, to longer survival as the result of antimicrobial therapy of patients with lung infections who might formerly have succumbed to the infections themselves. Fewer patients with tuberculosis, bronchiectasis, bronchitis, emphysema and various pulmonary fibroses now succumb to progressive or recurrent infectious processes. More survive, but with residual and often progressive pulmonary dysfunction.

Recognition of pulmonary heart disease as the primary or a secondary cause of congestive failure presents special difficulties, epsecially in differentiation from other forms of non-valvular heart disease. These problems of diagnosis, and special considerations in regard to therapy, will be discussed.

9:30 A.M.

(Subject and speaker to be announced)

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

11:00 A.M.

"Histoplasmosis"

MICHAEL L. FURCOLOW, M.D., Kansas City, Kansas

Medical Director, Kansas City Field Station, United States Public Health Service; Associate Clinical Professor of Medicine, University of Kansas School of Medicine

Discussed will be the recent knowledge of histoplasmosis in Michigan, as it is evolving, including something about the Milan situation and studies in Herman Kiefer Hospital, also the general clinical problem of histoplasmosis. Also discussed will be the epidemiology of the disease as it applies to a relatively low rate area.

11:30 A.M.

"Diseases Related to Antigen-Antibody Reaction"

FREDERICK G. GERMUTH, JR., M.D., Charlotte, North Carolina

Pathologist-in-Chief and Director of Laboratories, Charlotte Memorial Hospital

Previous work from this laboratory has been concerned primarily with the mechanisms of allergic reaction. In this discussion the following topics will be considered:

(A) Immunologic and histologic sequence during hypersensitivity.
(B) Mechanisms by which antigen-antibody reactions produce allergic lesions.
(C) The relationship of the experimental lesions to human disease.
(D) The role of allergy in human disease.

12:00 M.

END OF SIXTH ASSEMBLY
FINAL INTERMISSION TO VIEW EXHIBITS

FRIDAY

October 2, 1959

Program of Sections

Section on Pathology and Michigan Pathological Society

2:00 P.M. (Meeting)

6:00 P.M. (Reception and Dinner)

Continental Room, Pantlind Hotel

Chairman: VIOLA G. BREKKE, M.D., Highland Park

Slide Seminar on "Diseases Related to Antigen-Antibody Reaction"

FREDERICK G. GERMUTH, JR., M.D., Charlotte, North Carolina

Section on Public Health and Preventive Medicine

9:30 to 10:30 A.M.

Room D, Civic Auditorium

Chairman: H. B. ROBINS, M.D., Battle Creek
Secretary: L. V. BURKETT, M.D., Flint

"Histoplasmosis"

MICHAEL L. FURCOLOW, M.D., Kansas City, Kansas

END OF 1959 ANNUAL SESSION

The Present Status of Intervertebral Disc Surgery

By Alexander T. Aitken, M.D., F.A.C.S.
Brookline, Massachusetts

THE PROBLEM of low back pain, with or without nerve root radiation, has baffled us since man first developed an interest in the art of healing. Today, despite the advances in medical science the problem remains a formidable one. In our eagerness to solve this enigma, medicine has accepted with enthusiasm (if not with good judgment), any new development which gave promise of assistance.

Since 1911, owing largely to the work of Hibbs[1] and Albee[2], spine fusion for the relief of low back pain has been performed extensively. This procedure has had some success, but the high incidence of pseudarthrosis and the persistence of pain in many instances has cast some doubt upon its value. Today, spine fusion has its enthusiasts and its opponents. The procedure has waxed and waned in popularity indicating that by our present techniques, at least, it is not the answer to our over-all problem.

Because of the frequent referral of pain to the posterior iliac spines, the sacroiliac joint was once considered the site of pathology, and fusion of this joint became accepted treatment. Literally hundreds of these operations were performed, but the persistence or recurrence of pain and disability following this procedure eventually demonstrated the fallacy of this concept, and the operation was abandoned.

Then there developed the concept of tightness of the fascia lata and of the lumbosacral fascia as a cause of low back pain. This idea, too, was widely accepted and wholesale fasciotomies were performed, country-wide if not world-wide. Some individuals did obtain relief but it soon became apparent that tightness of the fascia was of minor significance and the operation of fasciotomy fell into discard.

Although ruptures of the intervertebral disc have been described sporadically in the literature since the report of Goldthwaite in 1911,[3] it was not until the late twenties that a number of isolated cases were recorded. The work of Mixter and Barr[4] demonstrated conclusively the role of the intervertebral disc as a cause of low back pain with nerve root radiation. Here, for the first time, actual pathology could be demonstrated which not only gave a logical explanation for the cause and distribution of pain but presented a rational surgical procedure for relief. At last, it seemed the answer had been found. The enthusiasm with which the concept was accepted has never been equalled in the annals of medicine. Neurosurgeons, orthopedists and others less qualified, enjoyed an exhilarating era. Thousands of operations were performed, as shown by the records of a neurosurgical unit of one Eastern university, indicating that 479 discs were removed within a nine-month period. The ruptured disc became a household word, and the diagnosis was made by laymen with a dispatch rivaled only by that of the medical profession.

At first, the diagnosis was made upon neurologic findings, but as enthusiasm increased, the criteria decreased. It was believed by some that all back pain, whether or not associated with nerve root radiation, was due to ruptures of the disc and disc surgery for back pain alone was advised—particularly if the roentgenograms revealed a narrowed intervertebral space.

New diagnostic aids were developed, the most important being that of myelography. Although definite criteria were laid down for the interpretation of the myelogram, these too were ignored as the popularity of disc surgery increased. Any defect in the myelogram was considered pathognomonic of a ruptured disc, and neurosurgeons—discarding the localizing neurologic findings—often explored the areas of defect first. Failing to find the defective disc as indicated by the myelogram, laminectomy was then performed at the level indicated by the neurologic deficit. Consequently, widespread laminectomies were performed, involving at times from five to seven vertebrae.

Despite the classical symptoms and findings (clinical and myelographic) many patients did not obtain the relief anticipated following excision

Presented at the Michigan Clinical Institute, Detroit, March 19-21, 1958.

of the discs. Persistence of symptoms frequently led to re-operation—in some instances as many as five times. Such surgery, of course, produced disastrous results.

With experience, it became obvious that many patients were being subjected to surgery who, in fact, did not have ruptures of the disc. Numerous explanations were then given for their symptoms such as hypertrophy of the ligamenthum flavum or pressure of dilated epidural veins. Other explanations were to the effect that the disc was occult or had reduced itself apparently with the theory that the same forces which caused the disc to extrude also caused it to reduce. In the great majority of instances, those patients in whom no rupture of the disc was found did poorly following surgery.

The persistence of symptoms following laminectomy brought forth a resurgence of spine fusion as an adjunct to stabilize the spine following disc surgery. This procedure met with some success, but in many instances the laminectomy was so widespread and so much bone, including the facets, had been removed in the exposure as to preclude successful fusion.

By 1947, adverse reports on disc surgery made their appearance in the literature. One by the author[5] in that year on the end-results in 170 industrial cases indicated that only 13 per cent were symptom-free and capable of doing heavy laborious work. Seventeen per cent had some persistent symptoms but were capable of doing all but the heaviest type of work; 25 per cent were able to perform light work, while 42 per cent never returned to any type of work. There was a 3 per cent mortality. In 40 per cent of the patients, the surgeons admitted that no disc pathology was found suggesting that the poor end-results in this series were as much due to errors in diagnosis as to radical, ill-advised or poorly performed surgery. This study further pointed out the unreliability of the total protein determinations of the myelogram and even of the neurologic findings. In view of the poor results, a plea was made for adequate study of the individual as a whole, as well as his lesion; for more conservative treatment of back lesions, in general, and in the performance of surgery, in particular.

Such reports had a definite sobering effect. General practitioners thought twice before referring their patients for surgery, and many sought out those specialists known to be more conservative. Orthopedists and neurosurgeons developed a far more cautious approach. The operation remained popular, but the enthusiastic surgery of the early forties declined. A second report was made by me in 1952[6] on the end-results of disc surgery in 200 industrial cases operated upon from 1947 to 1949. This included follow-up studies over a period of from three to five years.

By 1952, a rather marked decrease in the number of disc operations was noted by the insurance carriers, and the extensive laminectomies had shown a similar decline. In the report of 1952 there were no deaths. Of 165 cases in whom a ruptured disc is said to have been found, 68 per cent were able to return to some form of work. In thirty-five cases in whom no disc pathology was found, only 50 per cent were able to return to work. These statistics represented a definite improvement over those published five years previously, although the end-results could still not be considered as good. Since the statistics were taken from the files of a large compensation carrier, they were considered by some to be prejudiced. However, they were consistent with a statement made in the same year by Dr. I. W. Nachlas, chairman of the research committee of the American Orthopedic Association in an article in the *Journal of Bone and Joint Surgery,* "If a hundred patients with herniated nucleus pulposus are subject to disc excision, one may expect 60 per cent of them to obtain long-term results which are satisfactory."

While in the 1947 series, 40 per cent of the cases demonstrated no disc pathology, in the 1952 series no pathology was found in 17.5 per cent. The end-results of these cases were much poorer than in those patients in whom a ruptured disc was found. Although no disc pathology was found in these cases, they presented typical nerve root radiation and twenty-six of the thirty-five patients demonstrated neurologic findings including toe drop. Of the twenty-five individuals subjected to myelography, defects consistent with a ruptured disc were found in seventeen. It thus became obvious that some factor other than the intervertebral disc was responsible for the symptoms and findings in these cases.

Where, then, can the pathology be located, which could give rise to symptoms and findings identical to those produced by ruptures of the intervertebral disc? At the same time one might

ask, "What is the pathologic lesion in simple acute low back strain? Is it in muscle, tendon, ligament or joint? Is there any relationship between low back strain and pain of nerve root

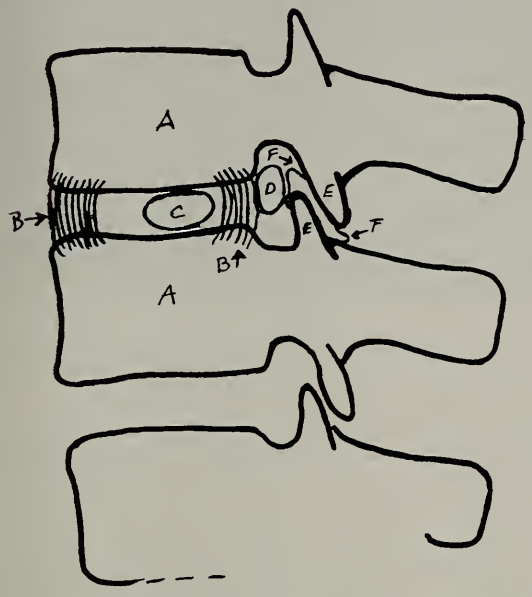


Fig. 1. Diagram showing component parts of intervertebral joints. *(A)* Vertebral bodies, *(B)* Annulus fibrosus, *(C)* Nucleus pulposus, *(D)* Nerve root, *(E)* Facets, *(F)* Joint capsule.

distribution?" The answer to these questions, I believe, lies in the construction and mechanics of the low back.

The history given by many patients of feeling either a snap or a sensation of something slipping in the low back while lifting in the flexed position suggests that the lesion of acute back strain involves the moving parts off the spine. These moving parts are represented by three joints. Anteriorly, a joint is formed between the bodies of the vertebra consisting of the hyaline plates, attached to the bodies, blended together by the annulus fibrosus and including the nucleus pulposus (Fig. 1). This type of joint converts the spinal column into a flexible rod permitting a bending motion, forward, backwards and sideways. On motion in any given direction, the nucleus is compressed on that side and resists further compression as it moves or is forced to the opposite side (Fig. 2). With the release of the compression force, the nucleus assumes its normal position forcing the vertebra back into normal position. The function of the nucleus is, thus, the absorption of vertical compression forces, acting, more or less, as a spring or shock absorber. This joint does not permit motion between the vertebral bodies in a horizontal plane, and it is not constructed to withstand horizontal shearing forces over a period of time.

Posteriorly, lie the two apophyseal joints which

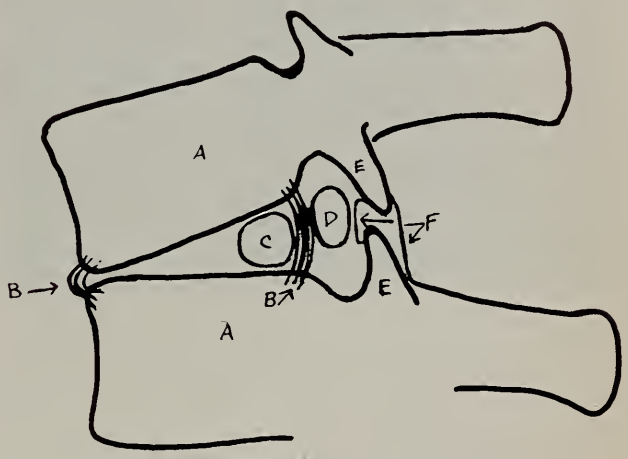


Fig. 2. Diagram showing shift of nucleus posteriorly on forward flexion. Schematic gliding of facets with tightening of posterior joint capsule also shown. *(A)* Vertebral bodies, *(B)* Annulus fibrosus, *(C)* Nucleus pulposus, *(D)* Nerve root, *(E)* Facets, *(F)* Joint capsule.

are formed on either side by the inferior facets of the vertebra above articulating with the superior facets of the vertebra below. Each vertebra thus participates in the formation of four such joints. These are simple joints with a fibrous capsule and synovial lining. On motion of the lumbar spine, the facets glide on one another acting as bearings. As in any machine, bearings which are out of line are not only apt to be damaged by acute trauma but are subject to wear and tear, due to chronic strain. This is no less true in the human spine.

The range of motion between any two facets depends upon the size and shape and plane of the facets. For smooth function, therefore, all facets should be of the same size and shape and should lie in the same plane. Variations, however, in the size and shape and plane of the facets are very common in the lumbar spine. All facets may lie either in the coronal or in the saggital planes (Figs. 3-5) or the facets on one side may lie in one plane and on the opposite side in another (Fig. 6). Variations between the two sides in the same vertebra are very common. Frequently the facets are curved in two planes presenting a concave or convex relationship to one another, an arrangement which allows not only a gliding but a rotary motion as well. Since



Fig. 3. *(Left)* Roentgenogram showing all apophyseal joints lying in sagittal plane.
Fig. 4. *(Right)* X-rays showing all facets lying in coronal plane. The spinous process of L5 is bifid.



Fig. 5. *(Left)* Showing facets between L3-L4 and L4-L5 to lie in sagittal plane bilaterally while facets between L5-S1 lie in coronal plane bilaterally. The spinous processes of S1 and S2 are bifid.

Fig. 6. *(Right)* Showing facets from L3-S1 to lie in sagittal plane on one side and in coronal plane in the other.

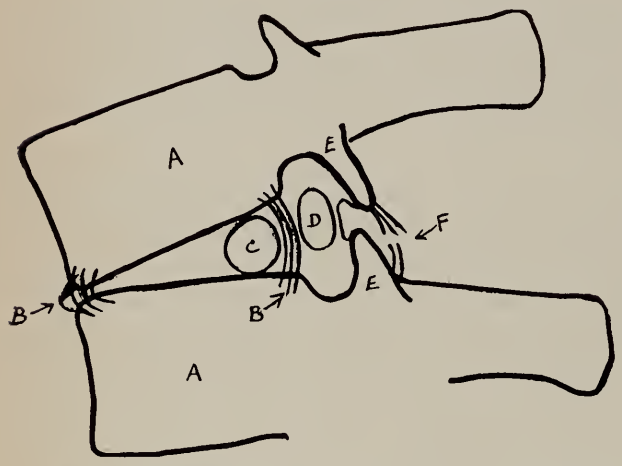


Fig. 7. Diagram showing separation of facets with rupture of the posterior capsule. *(A)* Vertebral bodies, *(B)* Annulus fibrosus, *(C)* Nucleus pulposus, *(D)* Nerve root, *(E)* Facets, *(F)* Joint capsule.

the size and shape and plane of the facet predetermines its range of motion, it is obvious that in spines with marked anomaly there is great variation in the ranges of motion not only between adjacent vertebrae but between the joints of the same vertebra.

This variation in the range of motion of the facets assumes a greater significance when one realizes that most of the motion in the spine occurs between the lower two lumbar vertebrae and the sacrum. When a patient bends forward to the full extent, the facets glide on one another through their full range and the posterior capsules are put on a stretch. If, in this position, a heavy object is lifted tremendous leverage is exerted upon the facets and their capsules. Those facets, which because of anomaly are unstable, will tend to glide further than their mates causing the posterior capsules to stretch or tear (Fig. 7). When this occurs the patients may hear or feel a snap as the capsules tear and the facets slip off one another. As in strains elsewhere, hemorrhage and swelling develop within the joint associated with pain and muscle spasm presenting the typical picture of acute back strain.

Recurrent acute strains (especially if inadequately treated) or repeated subclinical strains over a period of time produce progressive stretching of the posterior ligamentous and capsular structures with increasing instability in the joints. With increasing instability there develops increasing susceptibility to less violent trauma resulting in recurrent or chronic low back strain.

Degenerative changes, as described by Putti and Logroscino[7] and by Harris and McNab,[8] develop. The capsules of the joints become thickened and edematous and may show areas of calcification. The synovia becomes hypertrophied with villous formation. Chronic irritation of the villi may result in cartilage and bone formation and in the development of loose bodies within the apophyseal joints. The articular cartilage of the facets becomes fissured, fibrillated and ulcerated. Osteophyte formation develops and intra-articular adhesions are formed. The nerve roots lying

on the anterior surface of the joint may become adherent to the capsule through adhesions.

Furthermore, pressure may be exerted upon the nerve in the foramen by the thickened capsule and the constant irritation of the fixed and compressed nerve by the abnormal motion of the facets may produce pain of nerve root distribution. Harris and McNab[8] have demonstrated nerve root pressure from this source especially when associated with subluxation of the facets and squashing of the disc. When, to this process, the swelling of acute trauma is added, symptoms of acute nerve root pain are precipitated. This pathologic process, I believe, accounts not only for chronic low back pain but can explain the signs and symptoms of nerve root irritation in those cases explored for ruptures of the intervertebral disc with negative operative findings.

The pathologic process does not end here, however. The instability of the facets as it increases leads to a definite jiggling motion between the vertebrae which is transferred to the intervertebral disc as a horizontal or cross-shearing strain. This structure built to withstand vertical compression forces cannot withstand cross-strain over a period of years and eventually undergoes degeneration. Similar degenerative changes occur in the annulus fibrosus which eventually gives way permitting herniation of the degenerated disc.

It is not implied that all ruptures of the disc are secondary to degenerative changes within the apophyseal joints. The transmission of cross-shear to the disc may produce degenerative changes in the annulus fibrosus and the nucleus before symptomatic degenerative changes occur in the apophyseal joints. In fact, some authors feel that such changes in the joints are secondary to changes within the disc, and in the majority of cases this may be true. Which process develops first is of academic interest. The important fact is that symptoms and findings of nerve root compression may be produced by pressure and irritation of the nerve from behind by adherence of the root to or compression of the root by swollen, chronically inflamed apophyseal joints as by pressure from in front by a ruptured intervertebral disc. This concept of the role of pathology within the apophyseal joints is not new. It was described in 1933 by Ghormley[9] as the "facet syndrome" and has been elaborated upon by Badgeley,[10] Von Lachum,[11] Willis,[12] Putti,[7] Williams,[13] Danforth and Wilson.[14]

The problem in diagnosis, therefore, lies in the determination of whether the signs and symptoms of back and leg pain are due to a rupture of the intervertebral disc or to pressure and irritation of pathologic apophyseal joints. Frankly, we have no single finding or group of findings or any tests that are infallible. The accuracy of diagnosis is still based on the knowledge, experience, and intuition of the physician.

TABLE I. NEUROLOGIC FINDINGS IN 155 PATIENTS WITH LOW BACK PAIN

Neurologic Changes	Disc Cases (129)	Non-Disc Cases (26)
Reflex changes only	34	2
Sensory changes only	18	6
Atrophy only	2	3
Reflex changes plus atrophy	3	2
Sensory changes plus atrophy	7	1
Reflex and sensory changes	47	5
Reflex and sensory changes plus atrophy	18	7
Weakness of the extensor hallucis longus	4	2
Preoperative toe drop	0	2
Cauda equina paralysis	2	0

It would seem logical to expect the neurologic findings to be reliable. Yet atrophy, sensory and reflex changes singly or in combination may not only fail to localize the lesion accurately, but in the presence of any one or all three findings no disc pathology may be found. This was well demonstrated by the neurologic findings in our last series as shown in Table I. Although all cases were operated by men of recognized ability, no satisfactory explanation was given for the neurologic findings in the cases where no disc pathology was found. These could have been due probably to facet compression or to some other factor of which we have as yet no knowledge.

Equally baffling are the results of myelography. In this series where no pathology was found, twenty-five patients were subjected to myelographic studies with positive defects reported in seventeen. The myelogram presents only the contour of the dural sac, and any filamentous subdural band may deflect the column and thus produce a false-positive defect. On the other hand in large spinal canals with narrow dural sacs, large herniations may be present lateral to the sac and yet present no defect in the myelogram. Such false-negative readings are of importance, particularly, when the surgeon has such confidence in the myelogram that he will hesitate to perform surgery in the presence of negative findings. Not infrequently, the findings by myelo-

gram are inconsistent with the neurologic findings. In this event, it seems far more safe to rely on the clinical findings than on the myelogram. In short, the myelogram is a valuable aid (particularly in ruling out spinal cord tumors) but in the diagnosis of lesions of the intervertebral disc, its fallibility must be given due consideration.

In recent years, attempts have been made to visualize the disc itself by the injection of radio-opaque substances into it. The technique of discography may be difficult and the readings obtained equivocal. Although the diagnosis may be established by this means, the test is difficult to perform and it has experienced little popular support. We have had no experience with it.

Perhaps the most reliable test of all is the response to bed rest. Most patients with back and leg pain will recover if put to bed on a firm mattress with fracture boards. The period of recumbency varies with the relief obtained. It should be no less than one to two weeks and should be continued as long as improvement is noted or until the patient is asymptomatic. The best position is that in which the patient is most comfortable—either flat or semi-sitting with the knees flexed. The use of hot packs, pelvic and leg traction and sedation are of value.

If neurologic findings are absent, manipulation may prove of value. We use only the second and third maneuvers as described by Jostes.[15] This consists of placing the patient upon his side with the uppermost lower extremity partially flexed. The shoulders are then pulled backward and the pelvis thrust forward. When the slack has been taken up, then a gentle but firm thrust is made in both directions. This is often accompanied by a palpable and audible snap. If the patient is apprehensive, not infrequently, we use a general anesthetic such as sodium pentothal. Often this procedure is followed by dramatic improvement. We have seen no untoward results from this type of manipulation, although we have seen severe neurologic complications from forceful and from osteopathic or chiropractic manipulations. We do not manipulate all backs, and we have no way of determining which patient will be benefitted by the procedure. We reserve manipulation for those patients with back and leg pain whose convalescence has been slow and in whom there are no neurologic findings.

We do not agree with those who attribute all nerve root pain to the intervertebral discs and recommend treatment of ruptures of the discs by manipulation. We believe manipulation is of benefit only when the pathology lies within the apophyseal joints which may be locked by impinged synovia, loose bodies or adhesions about or within the joints. It is highly unlikely that once a disc has ruptured it can be reduced into the intervertebral space by manipulation. On the contrary, we believe that any manipulation may be hazardous once actual protrusion has occurred.

On conservative treatment, most patients with back and leg pain will recover. Only those cases which fail to do so or which recur on ambulation should then be considered for myelography and possible surgery. Most facet syndromes will respond to such treatment and can thus be eliminated as ruptured disc suspects. It is also possible that small protrusions will similarly respond as the extruded nucleus atrophies or becomes absorbed.

Not all cases of facet syndromes will so respond, however, and until more accurate diagnostic methods are available errors will be made. It must also be borne in mind as described by Schlessinger,[16] that factors other than ruptures of the disc or degenerative changes in the apophyseal joints may cause nerve root pain. It is recognized, of course, that such conditions as sacralization of the transverse process and spondylolisthesis may be a cause off such discomfort.

At the present time, the end-results of disc surgery have shown a vast improvement. A far more cautious and conservative approach has been generally adopted. The pitfalls in diagnosis which I have demonstrated have become recognized.

There has been, to my knowledge, no recent comprehensive report on the end-results of disc surgery. We may, therefore, get an inkling of the present status from the experience of insurance carriers. Home office examiners of two of the largest compensation carriers have recently reported to me that in their opinion there has been considerable improvement in the end-results of disc surgery in industrial cases. This has been associated with a marked drop in the total number of cases subjected to surgery. They no longer see the widespread laminectomies of the early years. The incidences of re-operation have likewise declined. They report the end-results are much better if spinal fusion is not performed. In general, for the first time, the over-all picture as

portrayed by the insurance carrier is somewhat optimistic.

Mistakes in diagnosis and treatment continue to be made, however, and will continue until we learn much more about the physiology and pathology of the lumbar spine, than we do at present. It appears that the role of the ruptured intervertebral disc is finally being assigned the importance it merits. The recognition of the symptom-complex presented by ruptures of the intervertebral disc (and its treatment) has been a most important contribution to our knowledge but in the last analysis it represents but one facet of the over-all complex problem of low back pain with nerve root radiation.

1180 Beacon Street
Brookline 46, Massachusetts

References

1. Hibbs, Russell A.: An operation for progressive spinal deformities. New York J. Med., 93:1013, 1911.
2. Albee, Fred H.: Transplantation of a portion of the tibia into the spine for Pott's disease. A preliminary report. J.A.M.A., 57:885, 1911.
3. Goldwaithe, J. E.: The lumbo-sacral articulation. An explanation of many cases of "lumbago," "sciatica," and paraplegia. Boston M. & S. J., 164: 365, 1911.
4. Mixter, W. J. and Barr, J. S.: Rupture of the intervertebral disc with involvement of the spinal canal. New England J. Med., 211:210, 1934.
5. Aitken, A. P.: End results of ruptured intervertebral discs in industry. Am. J. Surg., 73:365-380 (Mar.) 1947.
6. Aitken, A. P.: Rupture of the intervertebral disc in industry. Am. J. Surg., 84:261-267 (Sept.) 1952.
7. Putti, V. and Logrôscino, D.: Anatomia dell' artritismo vertebrale apofisario. Chir. org. movimento, 23:317, 1937-1938.
8. Harris, R. I. and McNab, I.: Structural changes in the lumbar intervertebral discs. J. Bone & Joint Surg., 36B:304-322, 1954.
9. Ghormley, R. K.: Low back pain with special reference to the articular facets with presentation of an operative procedure. J.A.M.A., 101:1773-1777, 1933.
10. Badgeley, C.: The articular facets in relation to low back pain and sciatic radiation. J. Bone & Joint Surg., 23:481-496, 1941.
11. von Lackum, H. L.: The lumbo-sacral region. An anatomic study and some clinical observations. J.A.M.A., 82:1109-1114 (Apr.) 1924.
12. Willis, T. A.: An analysis of vertebral anomalies. Am. J. Surg., 6:163-168, 1929.
13. Williams, P. C.: Reduced lumbosacral joint space. Its relation with sciatic irritation. J.A.M.A., 99: 1677-1682, 1932.
14. Danforth, M. S. and Wilson, P. D.: The anatomy of the lumbosacral region in relation to sciatic pain. J. Bone & Joint Surg., 7:109-160, 1925.
15. Jostes, F. A.: Backache. A manipulative treatment without anaesthesia. J. of Bone & Joint Surg., 30A:302-312, 1948.
16. Schlesinger, P. I.: Incarceration of the first sacral nerve in a lateral bony recess of the spinal canal as a cause of sciatica. J. Bone & Joint Surg., 37A:115-124 (Jan.) 1955.

FOOD FICTIONS

Dark bread contains fewer calories than white bread.
Toast has fewer calories than untoasted bread.
Food cannot be stored in open cans.
Garlic cures high blood pressure.
Citrus fruits are too acid to be handled by the body.
Foods cooked in aluminum utensils will cause cancer.
Cheese and milk are constipating.
Wine makes blood.
Omit meat and eggs to cure arthritis.
A good way to lose weight is to skip breakfast.
Grapefruit will reduce one.
Margarine has fewer calories than butter.
Pork liver is less nutritious than beef liver.
Never give milk to a patient with fever.
Oysters, raw eggs, or olives increase sexual potency.

—*Physicians Bulletin,* November 6, 1957

Fractures of the Femur

By Preston A. Wade, M.D.
New York, New York

THE FEMUR is the largest, thickest, longest and strongest bone in the body, and the violence that causes its fracture often causes multiple injuries to the other parts of the body and, in any case, causes considerable injury to the soft parts of the thigh involved. A patient with a fracture of the femur must therefore be examined very carefully for concomitant injuries and must be considered as a patient who may develop shock if he is not actually in shock at the time of the original examination. There is no other fracture in which the emphasis on the patient as a whole is more necessary than in the treatment of this fracture.

A study of multiple injuries involving the shaft of the femur shows a certain pattern of multiplicity of injuries which is quite consistent. The most common coincident injuries associated with the fracture of the femur are those involving the knee, hip, and spine. Because of the fact that the pain and obvious deformity and disability of the femur are so dominant, the injuries to the other areas may often be overlooked. The most common coincident injury, which is overlooked, is that sustained to the hip, in which the hip joint is dislocated or subluxated or in which there is an intrapelvic dislocation or a subluxation with a fracture of the posterior lip of the acetabulum. If these injuries are not recognized at the time of the accident, their recognition may be delayed for weeks or months, thus preventing a reasonably good return to function which one may expect from prompt treatment.

Fractures of the patella and other injuries to the knee involving the ligaments are also overlooked. It is wise also to instruct the young surgeon that not only must the knee, hip, and spine be carefully examined at the time of the accident, but sometime during a reasonable period in the first few days after the accident all of these areas must be x-rayed.

A patient with a fracture of the femur must be considered a good candidate for shock if he is not in shock at the time of the accident. Several pints of blood may be lost within the confines of the muscles of the thigh, and this actual loss of blood may occur hours after the original accident. Preparation for the treatment of shock must be made at the time of admission of the patient to the hospital, before any effort is made to carry out x-ray examination.

First Aid

The first dictum of the Trauma Committee of the American College of Surgeons has always been "splint 'em where they lie." In no fracture is this more important than in the fracture of the femur. All fractures of the femur should be splinted at the site of the injury before being transported. The most efficient and best method of splinting is by means of the traction splint. The Thomas splint, if available, makes the most efficient splint, and care should be taken to see that the binding of the ankle does not interfere with circulation of the foot. If a Thomas splint is not available (and one must realize that in times of mass casualties or what might be anticipated in atom bomb attacks, Thomas splints will not be available) it is necessary for us to use a substitute means. The simplest means is to use the sound limb as a splint, strapping and binding the affected limb to the sound limb. A lateral board splint is a satisfactory means of splinting, and the lower third fractures may be well supported by means of a pillow board splint as is recommended for fractures of the lower leg.

A simple method of using a board a foot or two longer than the injured extremity as a traction splint should be taught to all first aid groups. This principle involves the use of a sling into which the upper end of the stick or board is inserted and a rope or cloth sling applied to the ankle, which is attached to the opposite end of the board. Traction may be applied by means of a Spanish windlass maneuver using a stick to twist the rope attached to the foot. The board may then be quickly and easily bound to the injured limb by means of wrappings of cloth, clothing, or other bandaging

Presented at the Michigan Clinical Institute, Detroit, March 19-21, 1958.

material. This makes a most efficient type of splint and is easily applied even by the amateur.

Open Fractures

Open fractures of the femur are surgical emergencies as are open fractures in any part of the body, but because of the serious injuries that may be associated with a fracture of the femur, a delay in the debridement may be justified. A patient with a brain injury, crush injury to the chest, or a severe injury to the abdomen may need treatment of these injuries before an open fracture of the femur is properly treated. Treatment of within-out puncture wounds of the thigh may well be delayed for days if the conditions so demand. There is no other fracture in the body in which operative procedure in the treatment of the open fracture is more difficult. The area must be exposed by means of a proper vertical incision and the devitalized and obviously dead tissue must be excised and removed along with foreign material and obvious contamination. However, one must not attempt to excise such wounds en bloc, as the integrity of the circulation may be jeopardized. One must use judgment in cleansing all of the dead and dying tissue and foreign material from the wound, protecting all vital structures. It is essential to be exceedingly conservative in the treatment of the injured bone, which should be left in place whenever possible. One should also be exceedingly conservative in the excising of skin. Maintenance of skin coverage and preservation of bone are most important in the treatment of open fractures of the femur.

Fractures in Children

Of late years, fractures in children have assumed a much greater importance than in the past when most fractures were treated by closed methods. The reason for this change in the attitude toward the fracture in children is that nowadays most doctors, and even lay people, have knowledge of the improved techniques in the operative treatment in fractures in adults and expect to apply these principles to fractures in children. Children's fractures, particularly fractures of the femur, have been overtreated in many instances and operative procedures which are unnecessary, and indeed harmful, are sometimes performed. A fracture of the shaft of the femur in the child with the usual 2 or 3 cm. overriding may be expected to result in perfect restoration of function by simple closed reduction and immobilization in plaster even though perfect reduction of the fracture is not achieved.

The simple skin traction methods such as

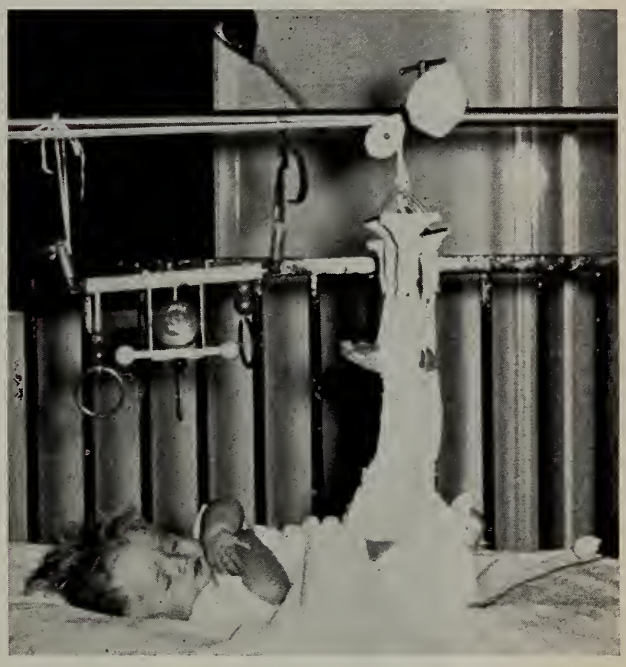


Fig. 1. Bryant's traction for fracture of femur in children under five. Note adhesive is applied as high as possible on thigh regardless of fracture site. Circulation of feet must be carefully watched.

Bryant's traction (Fig. 1) or Russel traction, which do not completely correct the shortening, but which achieve proper alignment and correction of rotation, may be expected to result in rapid and firm healing. The temporary shortening stimulates epiphyseal growth so that the shortened bone in a very short time achieves the exact length of the sound limb (Figs. 2 and 3). On the other hand, if one corrects the overriding by means of operative intervention, nature stimulates an overgrowth of the injured limb to correct the original shortening so that with the added stimulation of the operative intervention a further lengthening results in a longer limb on the injured side. It is therefore incorrect to assume that one may safely operate on a fractured femur in a child in order to achieve a perfect reduction. It does not follow, however, that if there is no displacement of the fracture, a displacement should be encouraged. Nature is wise in that there is no increase in the rate of growth in the undisplaced fracture, but there is a very definite increase in one which is displaced. It is also a fact that children's fractures do not accept metal well, and non-union and



Figure 2. (a) Typical bayonet position of fracture of femur in child of five. (b) After seven weeks in Bryant's traction. Over-riding uncorrected. Note solid healing with exuberant callus. (c) Four and one-half year follow-up. No shortening. Stimulation of epiphysis has resulted in overgrowth of affected side to equalize leg length.

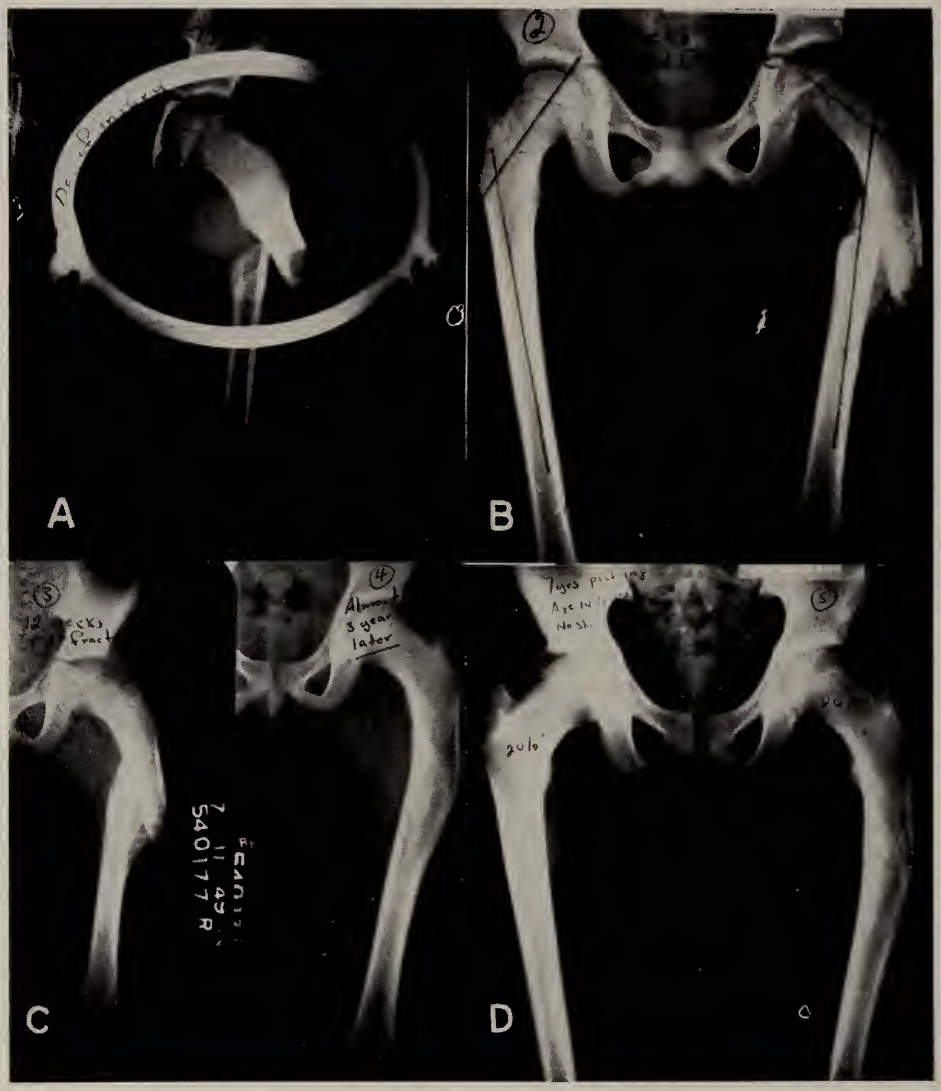


Fig. 3. (a) Fracture upper third of femoral shaft in child of seven and one-half. Typical displacement. (b) After seven weeks in Russel traction. Over-riding and angulation uncorrected. Note healing and exuberant callus. (c) Twelve-week follow-up *(left)*. Three-year follow-up *(right)*. (d) Seven-year follow-up. No shortening. Deformity corrected.

delayed union may result from the application of plates and screws. The single case of delayed union of a fracture of the shaft of the femur in a child in our records at New York Hospital is one in which a plate was applied at another hospital. The patient came to us sixteen months later with an ununited fracture. A union was promptly obtained when the plate was removed.

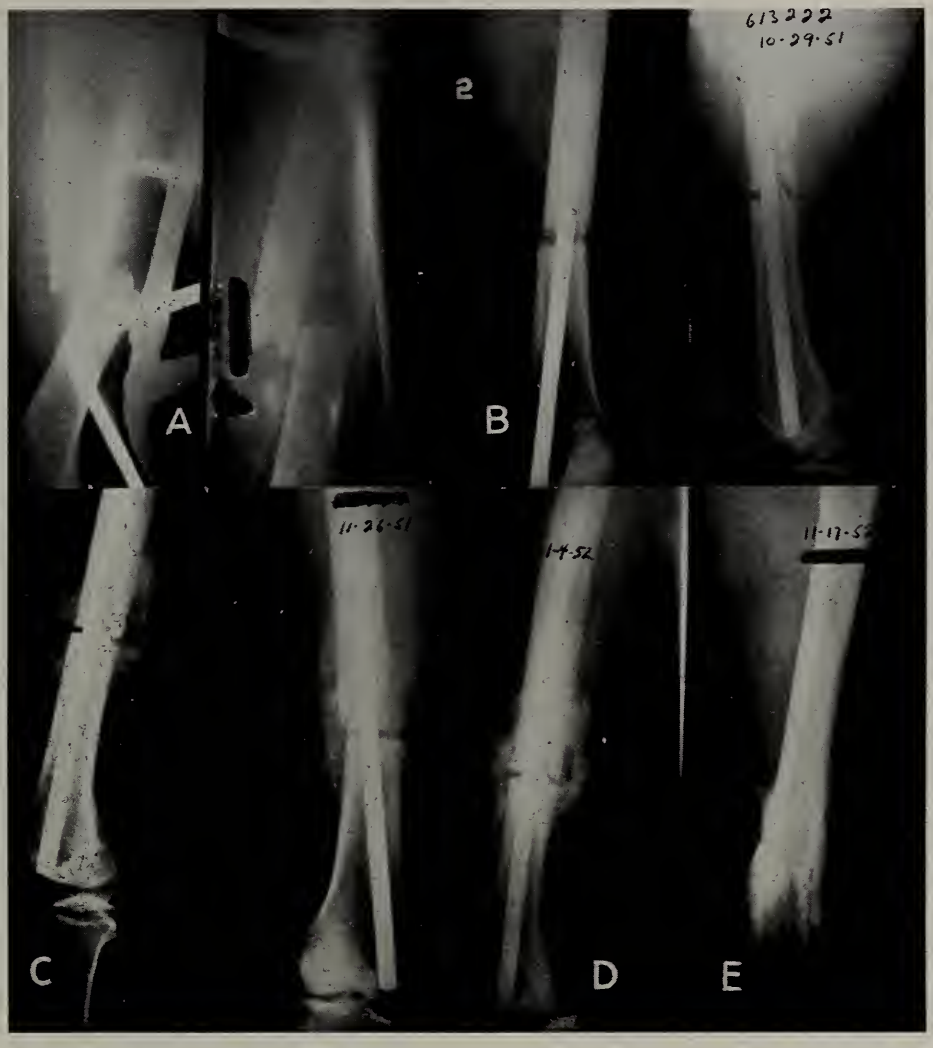


Fig. 4. (a) Fracture of shaft of femur in adult. (b) After intramedullary nailing with Küntscher nail. Some distraction of fragments occurred as nail was driven into lower fragment. (c) Four weeks postoperative. Note exuberant external callus. Full weight bearing allowed. (d) Ten weeks postoperative. (e) One year later. Nail removed.

Fractures in Adults

The treatment of fractures of the shaft of the femur in adults has been revolutionized in the past few years as the result of the use of the intramedullary nail. The older methods of traction or operative procedures, utilizing plate and screws, necessitating long periods of hospitalization and immobilization in plaster often resulted in permanent stiffening of the knee and ankle, particularly in older patients. Some of the most serious disabilities resulting from a fracture of the shaft of the femur were these resulting joint disabilities. With the intramedullary rod, the patient's stay in the hospital is shortened. There is no immobilization of knee and ankle, and the resulting rehabilitation is greatly hastened, the end result being much better than by using the older methods.

The most important advantage is in the comfort to the patient of being ambulated early and of having no immobilization of knee and ankle. Also the shorter period of hospitalization is of great importance, particularly in the older patient. The

decrease in the cost to the hospital, to the patient, and to the insurance companies may be a secondary advantage, but this is still very important. There are, of course, complications which may result from the use of intramedullary rods, but if the operation is properly done, the instance of infection, technical complications, as well as fat emboli and pulmonary emboli, is no greater than that which may be associated with other means of treatment.



Fig. 5. Skeletal traction with wire through tibial tubercle. Note sling under thigh at fracture site. This corrects posterior angulation of lower fragment.

The middle two-quarters of the shaft of the femur is that area in which a fracture is best treated by the intramedullary rods (Fig. 4). In these cases, fixation is sure, firm, and permanent, and the patient may be expected to be ambulated early and to be allowed early weight bearing. The insertion of the nail seems to produce an earlier and more abundant production of external callus than by other means of treatment. Union is quicker and much surer and is much more obvious in the x-ray.

We use the open method of insertion of the nail and believe that it is a much more sensible and realistic approach to the problem. The closed method as advocated by Böhler and Kuntscher is much more difficult technically and involves the use of the fluoroscope which we believe is exceedingly dangerous to patient and operating staff. We open the fracture site, insert the guide wire into the proximal fragment until it extrudes at the buttock. A cloverleaf nail is then inserted along the guide wire until it appears distally at the fracture site. One then removes the guide wire, replaces it inside the nail, and then inserts it into the distal fragment. The nail is then driven over it until it is seated properly into the intercondylar region of the femur. The guide wire is then removed and the wounds closed. Careful estimate of the length of the nail and the width of the intramedullary canal will usually provide for perfect placement of the nail. The nail should be inserted with the apex of the cloverleaf anterior so that the anterior cortex of the femur is not perforated by the sharp edges, which might result if the nail were placed in the reverse position.

We make sure that the intramedullary canal is the proper size for the chosen nail, and a 9, 10, or 11 reamer is used to prepare the intramedullary canal for the proper size nail. In the older patient in whom the intramedullary canal is very wide, it may be necessary to use two nested nails to fill the canal with the rods. On occasion we have found it necessary to use some means of preventing rotation of the lower fragment when in the elderly patient the fit of the nail was not accurate due to a very large intramedullary canal. We find that within two weeks the fragments become set, and rotation does not thereafter occur.

Russel Traction and Skeletal Traction

We emphasize the fact that traction is still a very simple, safe, and good method for the treatment of a fracture of the shaft of the femur. Particularly in the young person or in the patient with the shattered femur, it is much wiser to use the well-tried and satisfactory treatment of Russel traction or skeletal traction per the tibial tubercle (Fig. 5). We prefer the wire or Steinman pin inserted through the tibial tubercle rather than the lower portion of the femur because the nail or wire tracts are more distant from the fracture site and from the joint capsule, and they do not transfix the muscles on the lateral and medial surfaces of the femur. We do not believe that traction on the tibial tubercle causes traction injury to the knee joint because all of the thigh muscles are attached to the tibia. The pull on the tibia causes a traction on the muscles of the thigh and not on the knee joint. By means of traction, a perfect result should be achieved in almost every case in the young patient. Therefore, no chance should be taken by any operative procedure which might result in a complication. In the older patient, however, the long immobilization and confinement to bed may cause complications which we believe are more dangerous than the complications which might be expected to result from the use of the intramedullary rod.

Upper-Third Fractures

Fractures of the upper third of the femur are difficult to treat by means of traction because of the displacement of the upper fragments which flexes, abducts, and externally rotates. We have used the usual intertrochanteric nail and plate with considerable success in these upper third fractures. There are certain transverse fractures of the upper third which are slow to heal and which may be best treated by the intramedullary rod utilizing the principle of compression. A fracture of the upper third may be treated by means of a nail and plate and in other cases the intramedullary rod may be used. We have been able to use the intramedullary rod within 3 inches of the greater trochanter in spite of the fact that the intramedullary canal expands at its upper end because the nail is firmly fixed in the greater trochanter as it enters the bone. This fixes the upper fragment quite firmly.

Lower-Third Fractures

Fractures of the lower third of the femur cannot be as easily or as efficiently immobilized by means of intramedullary rods as those above because the expanding intramedullary canal does not allow for proper fixation of the distal fragment. We have used the double pin fixation of the Rush pins on numerous occasions in the supracondylar type of fracture, but we have not found it to be as successful as the blade plate or angle plate (Fig. 6). In the older patient in which this fracture most commonly occurs great care must be taken that the cortex is not damaged by internal fixation. The internal fixation may not be effective because of the relatively thin cortex in these elderly patients. However, if operative intervention of lower third fractures is possible, it is preferable to long immobilization in plaster or traction.

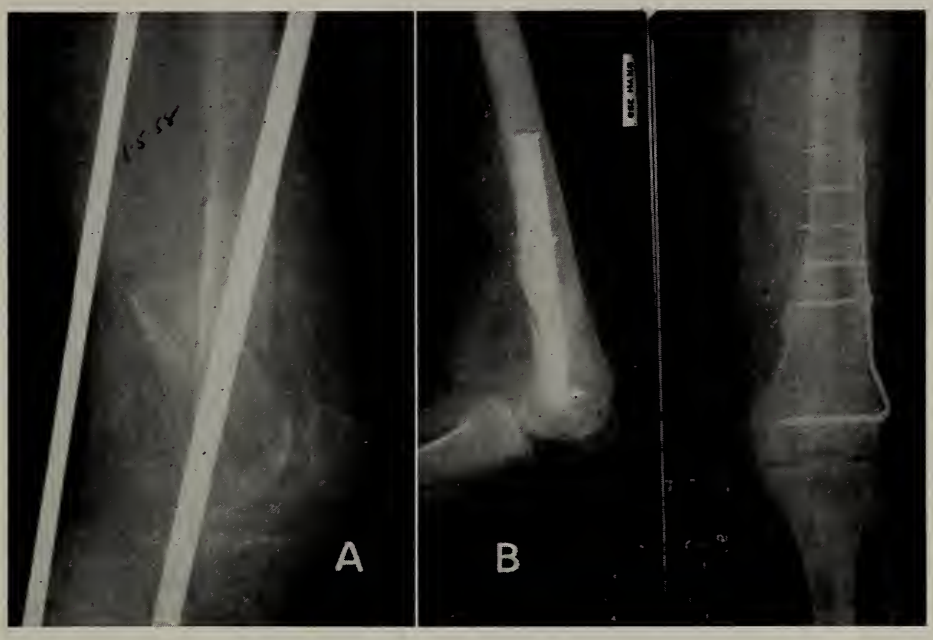


Fig. 6. (a) Supracondylar fracture in elderly patient. (b) After fixation by angle plate and screws.

Segmental Fractures

Segmental fractures are best handled by intramedullary fixation and are much more easily reduced and more firmly fixed than by other means of treatment. Comminuted fractures may also be best handled by rods with the addition of bands or wires.

Pathological Fractures

A pathological fracture of the shaft of the femur is an indication for intramedullary fixation. Even though the patient has an incurable disease as the result of carcinoma of the breast or hypernephroma or other malignancy, the intramedullary rod may be expected to give striking relief of pain. The patient may usually be ambulated, whereas otherwise he might be confined to bed the rest of his life. We do not hesitate to use intramedullary rods in the fixation of almost every case. We have come to the point where we use a prophylactic

intramedullary nailing in those cases in which a fracture is inevitable. It is most amazing that in many of these cases after intramedullary nailing, the area involved becomes solidified by bone consolidation.

Fear of danger of spread of the tumor by means of the nail being driven through the involved area has not been justified in our experience. If it is at all possible, closed nailings should be done in pathological fractures since opening into the involved area may cause spread of the tumor in the soft parts, and in some cases, particularly, hypernephromata, hemorrhage may be a serious complication.

Fractures in the Aged

Fractures in the shaft of the femur in the aged are often seen as the result of a minor trauma, particularly in those individuals with a pre-existing knee or hip disability. The limitation of motion in the knee or ankle causes an unnatural leverage at the supracondylar region, and a fracture through the weakened cortex results. These patients are often very difficult to handle because of their complicating pathological conditions and because of the thin, brittle cortex. Intramedullary rods may be used with great success in the elderly, but great care must be taken because the nail may be easily driven through the thin cortex of the shaft. Fixative material, such as plates and angle plates used for supracondylar fractures, may easily break through the cortex of the femur when applied. The results of early ambulation and early joint motion in the elderly quite justifies the use of early operative procedures.

Summary

1. Fractures of the shaft of the femur are often associated with multiple injuries and with severe soft part injuries of the involved limb.

2. Accompanying injuries most likely to be overlooked are those involving dislocations or subluxations of the hip with or without fractures of the posterior lip of the acetabulum and injuries to the knee and to the spine.

3. Patients sustaining fractures of the shaft of the femur are often subject to shock, either at the time of the original trauma or in the hours afterwards while being transported or after being admitted to the hospital.

4. Fractures of the femur in children should rarely be operated upon and should never be immobilized by means of internal fixation. Shortening due to the fracture of the shaft of the femur up to 2 cm. is usually corrected by increased rate of growth of the injured limb. Operation and internal fixation are apt to result in delayed union or lengthening of the affected leg.

5. Fractures of the shaft of the femur in adults in most instances is best treated by intramedullary rod. Transverse fractures of the middle two quarters of the femur and in many instances comminuted and oblique fractures may well be treated by this method. Fractures of the upper third of the femur within three or four inches of the greater trochanter may well be treated by the intramedullary rod.

6. The rod is indicated in pathological fractures and may be used as a prophylactic measure to prevent inevitable fractures.

7. Fractures of the lower third of the femur are best treated by internal fixation by means of angle plate or bolt and plate.

8. Fractures of the shafts of femurs in the elderly involve for the most part the supracondylar region and are usually associated with limitation of motion due to pre-existing knee or hip disability. Internal fixation in the elderly is of great advantage because of the early ambulation and the freedom of motion of knee and ankle joint.

SHAPES, COLORS OF SIGNS GUIDE MOST MOTORISTS

Motorists are guided more by the shapes and colors of highway signs than by the words printed on them.

Faber Birren, an industrial color consultant here, found that only 14 per cent of drivers noticed that an octagonal sign read TOPS instead of STOP. Mr. Birren has suggested that color always be used to identify the sign's function and signs should be reflective so that they are recognizable at night.

Estrogen Therapy of Acne

By Coleman Mopper, M.D., and
James R. Rogin, M.D.

Detroit, Michigan

WITHIN the past few years, recent reports in the literature regarding estrogen therapy in acne have recorded excellent results with the use of this hormone, while other reports are conflicting with their results. The authors have treated a number of cases of acne vulgaris using a routine course of x-ray treatments, estrogen therapy, or a combination of the two. Owing to the differences of opinion regarding the treatment of choice in acne vulgaris, the authors report their findings.

Acne vulgaris is not an insignificant skin condition and unfortunately, its importance is often underestimated by the general physician and the parents. It not only leaves permanent scarring and disfigurement, which are plainly visible, but it also presents a hidden psychologic problem to the patient. The unsightly lesions often disturb adolescent individuals to the point that their social adjustment is inadequate and this, in turn, may affect their entire life. There are far too many cases of acne that have caused a young person to be a complete failure in his future endeavors. The disfiguring produced by acne often results in an insurmountable handicap and the maladjustment and insecurity it produces, results in a great cost to the patient both socially and financially. The majority of cases of acne occur during adolescence and this is a period of life when a person is prone to be extremely sensitive and desires to look his cosmetic best.

It was shown by Bloch[3] that acne occurs slightly more often in boys than in girls and in one unselected group, 68.5 per cent of boys showed some acne while 59.6 per cent of girls. The maximum involvement was noted in the seventeenth year for girls and the eighteenth year for boys, the most severe cases being found most frequently among boys. This shows the prevalence of acne. Therefore, although acne is the most common skin complaint in a dermatologists's office, not every adolescent develops acne, as one commonly hears. It is the author's belief that in the United States and most western countries, that acne accounts for more facial scarring than the total of all scars on the face due to other conditions including trauma.

Acne is considered primarily due to an overactivity of the sebaceous glands, but there is some question as to the cause of this overactivity. Hamilton[12] has shown that acne is produced in females who are given androgens and there is an improvement following its withdrawal. Furthermore, there is a recurrence of the acne when androgens are given again. Also acne is not found in eunuchs, but when eunuchs are given androgens, acne can be produced. Lawrence and Werthessen[17] have experimental evidence which suggests that an increase in the ratio of circulating androgens to estrogens is a causative factor in acne vulgaris. Young people with acne appear to have huge surpluses of androgenic hormone, a manifestation which is not so apparent in later life.[14] This observation may explain the fact that young patients may require large doses of estrogens in order to produce a beneficial response.[8] It has been found that a marked hyperplasia of the sebaceous glands will develop by giving testosterone and following its withdrawal, they will involute and atrophy.[25] Wile, Snow and Bradbury[28] reporting on a considerable number of studies of the influence of sex hormones in treatment of acne show that men and women with acne have a lower estrogenic output than persons without acne in the same age group, and that the ratios between androgen and estrogen output in the two groups are quite different.

Lawrence and Werthessen[18] in 1942 theorized that acne is caused by a disturbance of the normal balance between androgens and estrogens and that when the imbalance becomes such that there is a preponderance of androgens, the acnegenic action of the androgens is exerted. MacKenna[20] believed that Barber and Bishop showed conclusively that androgen is the main cause in the production of

Read before the Noah Worcester Dermatological Society, Miami, Florida, April, 1958.

From the Department of Dermatology and Syphilology, Wayne State University, Detroit, Michigan.

acne and the estrogen was of definite benefit in its treatment. Lawrence and Werthessen studied the assays of androgens and estrogens in thirty-three patients with acne and found significant androgen preponderance as compared to normal individuals. Many of his patients had an abnormal menstrual history, such as dysmenorrhea, hypomenorrhea or menorrhagia. A number of young women also had definite exacerbations of the acne at the time of menstruation, with some improvement during the entire menstrual interval. Twenty-five patients were treated with oral dosages of estrogens and fifteen became entirely free from acne after treatment varying from two to six months. All were improved. Lawrence and Werthessen[17] stressed the point that during catamenia the estrogens are low, while the androgens do not fluctuate significantly. Therefore, there is a relative estrogen deficiency at the time of exacerbation of the acne at menstruation and the eruption improves or even disappears in the mild cases after the estrogens increase to their mid-cycle peak. Women normally excrete about 75 per cent androgens as compared to the amount which normal male adults excrete.[17]

First,[6] in his studies, indicated that there may be an actual estrogen deficiency in the blood and urine of the patient with acne, entirely independent of the estrogens during the menstrual cycle. Hamilton[12] stated that despite a correlation between acne and androgens, there is no proof that all forms of acne are caused by androgenic substances and mentions that congenital, psychic, dietary, or infectious factors are occasionally of major importance. Hamilton believed, however, that an important factor is a relative excess of male hormones.

Hooker and Pfeiffer,[13] after experimenting on rats with estrogens, found an inhibitory effect of estrogen on the sebaceous glands and believed this accounted for the improvement seen in patients with acne and treated with estrogens. Grollman[11] stated that although the sex hormones exert no toxic effects when used in reasonable dosages, large dosages over prolonged periods may exert toxic effects in addition to such harmful effects as may follow the physiologic actions when used injudiciously. Grollman also stated that there is no satisfactory evidence that the estrogens as used therapeutically have initiated cancer in the human being.

Kimbrough and Israel[15] stated that while huge doses of estrogen have produced carcinomas in experimental animals, these results are not applicable to man. They cite the fact that cancer-susceptible strains were used and also that it is impossible to use comparable large doses of estrogens in humans. However, the use of estrogens in so-called cancer families and in women past the fourth decade of life should be greatly curtailed.

However, a wide variety of factors[27] has been shown to be important in the development of acne, including dietary indiscretions, digestive disorders, psychoneuroses, fatigue, anemia, vitamin deficiency, local irritants, and certain drugs. Other factors also suggest that androgens are definitely contributory to the production of acne and Payne[22] cites the occurrence of acne in women with so-called masculinizing tumors and the disappearance of the skin lesions after removal of such tumors. He also cites the fact that pregnancy frequently has a beneficial influence, although at times the lesions appear or become aggravated during gestation and this suggests an association between acne and a desired androgen-estrogen ratio.

Many investigators agree that a higher percentage of cures is possible with the use of estrogens in the treatment of acne,[1,9,24] than was formerly obtained. Goeckerman[9] states that they can practically assure female patients with acne a satisfactory result now that estrogen therapy is available.

Treatment

A satisfactory approach to the problem of acne requires careful study of each individual case and adequate evaluation of factors which might be producing it. Acne may be due to adrenal or ovarian pathology or may be a symptom of bromide or iodide intoxications. Therefore, a correct diagnosis in these conditions is necessary. The estrogenic effect on the skin is minor as compared to its systemic physiologic effects and, in general, estrogens stimulate the sex characteristics of the female while they depress those of the male. High dosages of estrogens produce atrophy of both ovaries and testes;[22] estrogen has many effects in both sexes and causes the stimulation and growth of the breasts, a deposition of the usual feminine panniculus, water, sodium and nitrogen storage, as well as calcium deposition;[22] high estrogen dosages also influence the nervous system and depress the action of the pituitary gland.[22]

Before estrogen therapy is used, the physical

and endocrine status of the patient should be determined and observed closely during and following its administration. Transient swelling of the vulva and breasts with discomfort and headache may appear if estrogen dosage is too high. Nausea, vomiting and lower adominal cramps may be due to over-dosage in some cases. It is important to begin with a very small initial dose if unsatisfactory symptoms are to be avoided and then gradually increase the dose. Over-dosage or prolonged estrogen treatment may induce metrorragia and menorrhagia in normally menstruating women. Increased vaginal lubrication may cause an irritating vaginal discharge or even a vaginitis and vulvanitis. Pigmentation of the nipples and a temporary painful enlargement of the breasts may occur. Administration of estrogen may aggravate some conditions, such as endometritis or chronic cystic mastitis, and is contraindicated in the presence of cervical or endometrial polyps, uterian fibroids, some ovarian cysts or endometriosis.[22] Patients with malignancy, or suspected malignancy, of the genitals or breasts should never be given estrogens for the treatment of acne unless they are also under the observation of a gynecologist or an endocrinologist.

Vaginal smears and vulval luminescene are easy methods of estrogen estimation in the females.[22]

Goeckerman[9] used individualized dosages of estrogen for acne, and over a period of eight years he states some twenty-six cases emerged which, after critical sifting, seemed to warrant some conclusion as to the therapeutic value of estrogens. All patients with the possible exception of one, seemed to benefit, but he felt that as yet, no opinion could be rendered as to the permanency of the effects of estrogens administered artificially, although he believed that in his studies the results apparently were permanent.

Andrews and Way[1] treated female patients having acne and dividing them into three separate groups—each group receiving a different hormone: progesterone, testosterone, or estradiol. He obtained good therapeutic results in about 50 per cent of cases regardless of the hormone used and concluded that these persons benefited by female hormones may have had abnormally low levels whereas those benefited by male hormones may have had high levels, and that hormonal imbalance must exist in many patients with acne. He also concluded that such an imbalance may be due to a certain hormonal excess in one person and a hormonal deficiency in another, and that the use of sex hormones seems justifiable when satisfactory results are not obtainable by the commoner methods of therapy.

Shapiro[26] stated that although more than 80 per cent of cases of acne vulgaris will respond to the usual therapy, the occasionally stubborn type should be given the benefit of therapy by local application of estrogenic substances. Furthermore, he reported remissions in 60 per cent of cases with acne vulgaris that were previously recalcitrant to orthodox measures, after local applications of a cream containing estrogenic substances. No harmful effects were noted after four to six months' application of estrogens. Within six weeks the oiliness, papules, and pustules had appreciably subsided in fifteen of twenty-five cases. Goldberg and Harris[9] cited the case of a forty-year-old woman who had both ovaries removed and who used liberal quantities of estrogen cream to the face, neck, arms, and legs and sufficient absorption occurred to produce endometrial hyperplasia and resulted in uterine bleeding which lasted for forty-one days. Unfortunately, women may go to the drug counter and purchase cosmetic creams and lotions containing estrogens without a prescription and this may be a very dangerous procedure.

Andrews, Domonkos and Post[2] are of the opinion that removal of foci of infection or treatment of them are very important and they stress the importance of sensitization to staphylococci in acne. Hormone therapy in pustular, cystic and nodular cases were regularly prescribed by them and were sometimes helpful, but on the whole the chief treatment consisted of the use of modern antibiotics. The use of terramycin was especially beneficial and well tolerated. They also stated that hormones are not usually sufficient in themselves, that all foci of infection must be eliminated and that the pustular element must be treated with antibiotics.

X-ray therapy has been employed in the treatment of acne vulgaris and Gautier[7] is believed to be the first to utilize this treatment. Pusey[23] was the first to employ this mode of therapy in the United States and it was soon evident that an efficient procedure had been discovered.

Andrews and his co-workers[2] in using x-ray treatments, found that 60 per cent were entirely cleared up or improved, and that 20 per cent relapsed following x-ray treatments. Michael[21] found that 53 per cent of patients with acne were cured by one course of x-rays, 12 per cent were greatly improved and 35 per cent had relapses,

following treatment of 191 patients. The patients who had relapses were given a second course of x-rays and another 60 per cent were cured, giving an over-all cure rate of 85 per cent. Ninety per cent of the relapses occurred in the first year, and the younger the patient the greater was the probability of relapse. The observation that overtreatment with x-rays for prophylaxis against relapse is valueless was stressed particularly when the influence of adolescence was considered. Only enough x-ray treatments should be given to produce disappearance of the disease and then if a relapse occurs, resume radiation, observing the limits of safety.

Crawford, Linkart and Tilley[4] treated fifty-eight patients having acne vulgaris using fractional roentgen therapy and they were re-examined several years later, the period varying from five to twenty years, with an average of 11.3 years. The maximal roentgens administered to any single area varied from 500 to 1450 roentgen units. The technique used was similar to that of MacKee and Cipollaro.[19] No definite late radiation sequela were observed and more than 60 per cent were cured by the x-ray treatments and did not have recurrences. The results observed suggest that those patients who received 1000 to 1200 roentgen units in an uninterrupted series of treatments had the best results and the fewest recurrences. None of their patients showed atrophy, pigmentary changes or keratoses.

Klumpp and Torre[16] administered estrogen cyclicly for the fourteen days before the expected date of the next menses and dosage was gradually increased depending on the vaginal smear interpretation and clinical observations as to response to the previous dosage.

The present authors have used estrogen in the treatment for acne for the past five years and have used it in a similar fashion as Klumpp and Torre, that is, giving the estrogen fourteen days preceding the expected date of the menses. It was decided to use estrogen during the last two weeks of the menstrual cycle since many of the patients developed a flare-up of the acne at approximately the time of the menstrual period. Since the estrogen level is lowered at the time of the menses, the authors reasoned that with the use of substitution estrogen therapy at this time, the acne menstrual flares could be aborted. Only one type of estrogen therapy was used. This was done in an attempt to obtain some measure of standardization of therapy so that all patients would receive the same estrogenic product. Premarin was the product used and all patients with menstrual flares were given .625 mg. of estrogen on the fourteenth day preceding the date of the next menstrual period and were advised to take one tablet daily for fourteen straight days, but if the menstrual period should appear earlier, the medication was to be stopped. For the most part, the authors did not dispense with recommended therapeutic procedures in acne and used the estrogen along with other methods of treatment. They have found that x-ray is too valuable a procedure to delete from the therapy of acne and that, in the main, the long-term permanent therapeutic results of x-ray are far superior to that of estrogen therapy alone.

Estrogen administered during the last two weeks of the menstrual cycle has been very successful in aborting the menstrual flares and actually if the patient's menstrual cycle is regular, the administration of estrogen at this time will in most cases prevent the flare-up at the time of the menstrual period. Some patients will continue to have a flare-up with the small dosage of estrogen used, but if the dosage is increased to 1.25 mg. of estrogen during the last two weeks of the cycle, then flare-ups can be prevented. It is believed, however, that the estrogen did not have a long therapeutic effect—and exerting its effect only at the time it was given without producing a regulatory hormonal change so as to cause a permanent involution of the acnegenic process. The routine course of x-ray treatments appears to be the best method of treatment as far as long-term therapy is concerned and the addition of estrogens, as used, is of value in preventing the cyclic flares. The authors also feel that the antibiotics played a very important part in diminishing the pustular element in many of the acne cases and we have used several antibiotics including sulfadiazine, a triple combination of sulfonamides, broad-spectrum antibiotics, penicillin, and vitamin A. Thus, the treatment of acne as used is actually an artillery barrage attempting to snuff out by different methods the acne process. It does not seem feasible, nor advisable to dispense with any of the recognized therapeutic procedures used in treating acne, because all of them have a definite effect. Therefore, local therapy together with dietary measures were also instituted.

While acne may be due to an abnormal androgen-estrogen ratio, at the present time we do not have the answer to the problem, as far as the endocrinology is concerned. Some day in the fu-

ture with newer advances in endocrinology, today's recognized therapeutic procedures may be anachronistic. Until such time, the authors are of the opinion that of all the various methods of treatment used, x-ray therapy is the most important single procedure and the others contribute to a good therapeutic result.

If x-ray fails in treatment, of course other methods must be used and it is in this particular group of patients that estrogen therapy, together with the antibiotics, staphylococcus vaccines and comedone surgery, is advocated.

It has also been observed that when the menstrual cycle is irregular that the use of estrogen therapy preceding the expected date of the next menstrual period usually does not prevent the flare-ups, whereas if the menstrual period is regular the menstrual flares can be controlled.

Estrogen therapy of acne offers some interesting possibilities as far as the future is concerned and we will continue its use and hope that future research will give us some added knowledge so that the endocrinology of acne will become known.

Conclusions

1. Estrogen therapy given during the last two weeks of the menstrual cycle will usually prevent menstrual flares, if the menstrual periods are regular.

2. Estrogen therapy, as given, does not exert a long-term therapeutic effect on the acnegenic process and exerts its effect only during the period when it is given.

3. A routine course of x-ray treatments is the therapy of choice in acne.

4. X-ray therapy offers the quickest means of bringing about a quiescence of the acne process.

5. Other aspects of therapy, such as the use of antibiotics, staphylococcus vaccines, vitamin A, local therapy, and dietary measures are necessary in the treatment of acne and will produce a quicker involution of the process and thus avoid additional scarring.

6. Acne should be treated with all the therapeutic methods available to bring about the quickest possible involution of the process in an effort to prevent additional scarring.

References

1. Andrews, George C., and Way, Stuart C.: Hormones and acne. Arch. Dermat. & Syph., 61:575-588 (April) 1950.
2. Andrews, G. C., Domonkos, A. N., and Post, C. F.: Treatment of acne vulgaris. J.A.M.A., 146:1107-1113 (July 21) 1951.
3. Bloch, B.: Metabolism, endocrine glands and skin diseases with special reference to acne vulgaris and xanthoma. Brit. J. Dermat., 43:61-87 (Feb.) 1931.
4. Crawford, G. M., Linkart, R. H., Jr., and Tilley, R. F.: Roentgen therapy of acne. New England J. Med., 245:726-728 (Nov. 8) 1951.
5. Endocreme—A. Cosmetic with a menace (Editorial). J.A.M.A., 110:1194 (April 9) 1938; The public be warned (Editorial). J.A.M.A., 114:1886 (May 11) 1940.
6. First, A.: Functional menstrual disorders: Investigation and endocrine therapy. Symposium on recent advances in gynecology and obstetrics. M. Clin. North America, 29:1375 (Nov.) 1945.
7. Gautier, R., cited by Belot, J.: Radiotherapy in Skin Diseases. pp. 261-266. New York: Erbmann Company, 1905.
8. Geist, S. H., Salmon, U. J., Gaines, J. A., and Walter, R. I.: Biologic effects of androgen in women. J.A.M.A., 114:1539-1544 (April) 1940.
9. Goeckerman, W. H.: Hormonal therapy of acne vulgaris in the female. Arch. Dermat. & Syph., 61:237-243 (Feb.) 1950.
10. Goldberg, M. B., and Harris, F. I.: Use of estrogen creams. J.A.M.A., 150:790 (Oct. 25) 1952.
11. Grollman, A.: Essentials of Endocrinology (2d ed.). pp. 570-577. Philadelphia: J. B. Lippincott Company, 1947.
12. Hamilton, J. B.: Male hormone substance: Prime factor in acne. J. Clin. Endocrinol., 1:570-592 (July) 1941.
13. Hooker, C. W., and Pfeiffer, C. A.: Effect of sex hormones upon the rat. J. Clin. Endocrinol., 32:69, 1943.
14. Kenigsberg, S., Pearson, S., and McGavack, T. H.: The excretion of 17-ketosteroids: Normal values in relation to age and sex. J. Clin. Endocrinol., 9:426-429 (May) 1949.
15. Kimbrough, R. A., and Israel, S. L.: The use and abuse of estrogen. J.A.M.A., 138:1217 (Dec. 25) 1948.
16. Klumpp, M., and Torre, D.: Personal communication (Dec. 19) 1952.
17. Lawrence, C. H., and Werthessen, N. T.: The endocrine dyscrasia of acne vulgaris in women. Endocrinology, 27:755-758 (Nov.) 1940.
18. Lawrence, C. H., and Werthessen, N. T.: Etiology of acne in females. Internat. Clin., 1:198-205 (March) 1942.
19. MacKee, G. M., and Cipollaro, A. C.: X-ray and Radium in the Treatment of Diseases of the Skin (4th ed.). p. 332. Philadelphia: Lea & Febiger, 1946.
20. MacKenna, R. M. B.: Dermatology—the international outlook. J.A.M.A., 135:1128 (Dec.) 1947.
21. Michael, J. C.: Roentgen-ray treatment of acne vulgaris. Arch. Dermat. & Syph., 17:604-618 (May) 1928.
22. Payne, Sheldon A.: Estrogen therapy in acne-contraindications. Ann. West. Med. & Surg., 6:92-95 (Feb.) 1952.
23. Pusey, W. A., cited by Kline, P. R., and Gahan, E.: Unilateral roentgen irradiation in treatment of acne vulgaris. Arch. Dermat. & Syph., 46:207-210, 1942.
24. Rosenthal, T.: Hormonal treatment of acne vulgaris. M. Clin. North America, 20:985-994 (Nov.) 1936.
25. Selye, Hans: Textbook of Endocrinology. Montreal, Canada: Acta Endocrinol., Univ. of Montreal, 1947.
26. Shapiro, Irving: Estrogens by local application in treatment of acne vulgaris. Arch. Dermat. & Syph., 63:224-227 (Feb.) 1951.
27. Stokes, J. H., and Sternberg, T. H.: Factor analysis of acne complex with therapeutic comment. Arch. Dermat. & Syph., 40:345-367 (Sept.) 1939.
28. Wile, U. J., Snow, J. S., and Bradbury, J. T.: Studies of sex hormones in acne. Arch. Dermat. & Syph., 39:200-210 (Feb.) 1939.

The American Academy of Medicine—Michigan Chapter

Meeting of March 10, 1959

THE RATIONALE FOR NECK DISSECTIONS IN THE TREATMENT OF CARCINOMA OF THE THYROID

Melvin A. Block, M.D., F.A.C.S.; J. Martin Miller, M.D. and Brock E. Brush, M.D., F.A.C.S.

When the presence of thyroid carcinoma is demonstrated microscopically, the advisability of performing a neck dissection arises. This decision has been more difficult to make for patients who have no palpable cervical lymphadenopathy.

Based on data accumulated over 20 years in treating 132 patients with thyroid carcinoma, it is our policy to perform neck dissections if palpable cervical lymphadenopathy is present and the lesion is otherwise operable. Nearly all of these patients do have cervical metastases and, unless an adequate neck dissection is performed, many later have clinical difficulty with cervical metastases.

Of those patients having thyroid carcinoma without palpable cervical lymphadenopathy, approximately 30 per cent were found to have microscopic metastases to those nodes removed by neck dissections done at the time of thyroid surgery or at a later date. A modified neck dissection appears to be justified for many of the patients with carcinoma of the thyroid in the absence of palpable cervical lymphadenopathy. Although the data does not dictate the absolute necessity for this procedure, better results are suggested if it is done.

SPONTANEOUS PERFORATION OF THE BOWEL IN THE NEWBORN

Kirk V. Cammack, M.D., Albert Macksood, M.D., Max Dodds, M.D., and Hardie B. Elliott, M.D.

Hurley Hospital, Flint, Michigan

This paper will discuss the problems in diagnosis and treatment of spontaneous perforation of the bowel in the newborn. The diagnosis as related to history, physical examination and x-ray findings is outlined. Clinical problems in the diagnosis and treatment are discussed.

The etiology of spontaneous perforation of the bowel in the newborn is still obscure. A discussion of the commonly accepted theories relative to the etiology is presented. Clinical cases of perforation of the bowel in the newborn taken from the records of Hurley Hospital are reviewed. These perforations occurred in the stomach, small and large bowel. None of the etiological factors commonly accepted offer an adequate explanation of these perforations.

A review of the literature and study of our clinical cases is used to outline the diagnostic features of neonatal perforation of the bowel. Diagnostic features of the history and physical examination, and x-ray findings, in actual cases are presented. The diagnosis is often delayed since the early physical findings may suggest septicemia or pulmonary pathology.

A sequence of clinical symptoms consisting of refusal to nurse, emesis, cyanosis and distention is the usual case. The major diagnostic point is x-ray evidence of pneumoperitoneum. Pneumoperitoneum is consistently found on x-ray examination of the abdomen. If the condition is suspected, repeated flat plates should be taken at intervals. An illustrative case where the diagnosis of pneumoperitoneum was made only after repeated x-ray examination is presented.

Despite x-ray evidence of pneumoperitoneum and physical examination which indicates bowel perforation, the perforation will not always be found at surgery. Within the last year, two newborn infants with pneumoperitoneum were explored without the perforation being found. Peritonitis was present at the time of surgery in both cases. Neither infant survived. The site of perforation was not found at postmortem examination.

Surgery is the only treatment. Naso-gastric suction is of little value in perforations beyond the duodenum. Surgical exploration is the only method of determining the site of perforation.

Early diagnosis and treatment may result in a dramatic surgical triumph.

A STUDY OF THE ABUSE OF ANTIBIOTICS IN ELECTIVE HERNIORRHAPHIES

Luther C. Carpenter, M.D.

The medical audit, such as that developed by the American College of Surgeons and Commission on Professional and Hospital activities, provides a practical and accurate method for evaluating medical care.

Of 1490 patients undergoing elective surgery for an uncomplicated inguinal hernia, 38.2 per cent received antibiotics in 84 per cent of the instances routinely or prophylactically.

There is a wide variation in use of antibiotics prophylactically among the hospital studies varying from 9.1 to 100 per cent.

Teaching hospitals frequently use antibiotics as often as smaller or non-teaching hospitals.

Patients receiving antibiotics prophylactically developed infection approximately three times as often (4 to 1.3 per cent) as those patients when antibiotics were not used.

The antibiotics used most commonly (penicillin, streptomycin and the tetracyclines) have little or no effect against the staphylococcus coagulase positive and the other common bacterials and hence are of little benefit.

Since streptomycin when used was combined with penicillin in all but one instance it is suggested the availability of the product commercially rather than the merit of the combination is more influential in determining its use.

The use of antibiotics in 38.2 per cent of simple, uncomplicated, clean, elective surgical procedures would appear to be unwarranted and might further increase the resistance of bacteria to antibiotics in the future.

CONTRAST MATERIAL DISSECTION OF THE AORTIC WALL IN DIRECT AORTOGRAPHY

Earl F. Wolfman, Jr., M.D., and D. E. Boblitt, M.D.

From the Departments of Surgery and Radiology, University of Michigan Medical School, Ann Arbor, Michigan.

Intramural aortic injection occurs when either all or a portion of the contrast medium is injected into the wall of the aorta rather than into the lumen of the vessel itself. Since many persons upon whom aortography is performed have arteriosclerotic vascular disease, it becomes an easy process to separate the diseased medial layer of the artery with either the needle tip or the jet stream of injected contrast medium. The contrast material itself may dissect about, and occlude, major aortic visceral branches, or it may only form a false extraluminal channel which will allow an inflow of blood from the main aortic lumen to occur and thus produce a true dissecting aneurysm. It is noteworthy that most of the common lethal and serious complications of translumbar aortography, renal, neurological, and gastrointestinal, are identical to those associated with spontaneously occurring dissecting aneurysms of the aorta. Likewise, just as spontaneous dissecting aortic aneurysms do not always produce occlusions of major vascular trunks, neither do such occlusions invariably occur in dissections produced during aortography.

Four hundred and twenty-five translumbar aortograms done at the University Hospital and the Ann Arbor Veterans Administration Hospital between July 1, 1951 and June 30, 1958, were reviewed. In this series, there were forty-two intramural injections, an incidence of 9.9 per cent.

Four deaths occurred in the 425 aortograms performed, and all four of these patients had intramural injections of the contrast medium. Postmortem examinations were done on three of the four patients and dissecting aneurysms were present in all three. Two of the four deaths were due to acute renal insufficiency and were directly attributable to the dissecting aneurysms produced. One death was caused by acute coronary insufficiency, manifested by ventricular fibrillation, which occurred seventy-five minutes following the aortogram. The fourth death occurred on the twenty-ninth post-aortogram day following a prolonged period of renal insufficiency. Unfortunately, permission for a postmortem examination could not be obtained.

Previously, intramural injection of contrast medium has been considered a relatively minor complication of infrequent occurrence. However, our experience indicates intramural injection to be a common complication with potentially lethal sequelae; furthermore, since it may occur with even the most meticulous technic, the best deterrent to the development of serious complications is roentgenographic recognition coupled with prompt termination of the examination should it occur.

A CLINICOPATHOLOGIC STUDY OF ONE HUNDRED CASES OF CARCINOMA OF THE THYROID

Charles J. France, M.D.

One hundred cases of carcinoma of the thyroid from seven Detroit area hospitals have been reviewed to determine the role of histologic type, age and sex in relation to prognosis. In view of statements in the literature as to the relatively benign course of the papillary forms, particular attention was given in histologic grading as to degree of papillary change. Forty-three per cent of cases presented some degree of papillary involvement, 47 per cent were of follicular, and 10 per cent of undifferentiated pattern. Female patients predominated in a ratio of 2:1 in all forms except the undifferentiated, in which this ratio was reversed. Only 60 per cent of patients under the age of forty were found to have papillary carcinoma, the remainder having the more malignant follicular carcinoma.

Evaluation of end results reveal that in the patients under forty years of age the disease process was not surgically curable in 13.5 per cent with papillary carcinoma and 44 per cent with follicular carcinoma, whereas in patients over forty the surgical failure rate was 38 per cent in papillary, 77 per cent in follicular and 100 per cent in undifferentiated carcinoma. It is concluded that, although papillary carcinoma carries a better prognosis than the follicular and undifferentiated forms, the disease does have significant lethal potential. It is further pointed out that the younger age groups are not immune to non-curable cancer of the thyroid. A plea is made for earlier and more aggressive surgical management of carcinoma of the thyroid and its nodular disease precursors.

Editorial

THE TIME IS RIPE

Social experiences and historical background emphasize the fact that when a great need, revolutionary idea or urge impends, nature finds a solution. The suggestion may come from an individual here, an economic activity there, or through an attempt from many sources to develop a remedy or solution of the need. At times, the inspired idea seems to come simultaneously from the rank and file and not from the leaders, designated and ordinarily accepted statesmen, or hierarchy.

During the 1920's and the 1930's, the distribution of medical care and the necessity of paying for it was the subject foremost in the minds of vast numbers of far-seeing doctor pioneers. The considerations during that decade were mostly criticisms of the medical profession and demands for what was called the "socializing of medicine." In the late 1930's and the early 1940's, the medical profession generally accepted the completely new philosophy that part of its duty to patients and public was to provide a means by which our clientele could secure with dignity the necessary medical and hospital services needed. The Blue Shield idea and the Blue Cross plan were an almost spontaneous result when desperation seemed about to strike and the loss of the right for independent practice was imminent.

Michigan can be and is justly proud of her contribution of expensive and detailed surveys and studies, of the untold days devoted to meetings, and the ultimate solution of our medical and health program. We are fortunate that these two movements which are tied together in the public mind were statewide and that the Blue Shield program was developed in and by the State Medical Society so there could be no question of political or lay controls and regulations. (Several state societies are now attempting to regain medical dominance). This movement was accepted by a sufficient majority of the practicing physicians to guarantee it would work. There were groups, small or large, which did not conform or accept, but Michigan's Blue Cross-Blue Shield program has been working for two decades.

Abuses Developed

In the usage and utilization of the prepayment plans, demands for more extended benefits and more complete coverage have been growing among subscribers for a number of years. Demands for a revision of offering and changes in the economic and financial returns have also been growing among the profession. Some of our workers in the administrative field have foreseen changes and have suggested modification in the Blue Shield offerings. Many groups within the administration and in the profession generally have been concerned with some abuses and misutilization of the prepayment program, which have spiralled the costs.

Demands have been growing for inclusion of many medical, hospital and health expenses not covered and not readily available. Suggestions were made and studies conducted looking to issuing a "rider" on the Blue Shield certificate offering many benefits not then covered, such as out-patient surgery, diagnostic methods, surgical assistance. Another rider suggested would offer complete home and office care for those willing to pay. Labor quite generally was demanding complete coverage. Such a rider was written and could have been issued. That would have answered the criticism made so many times that Blue Shield coverage did not offer enough benefits and did not cover the complete medical charges.

During the last three or four years, more extensive surveys and studies have been accomplished and a new and modern Blue Shield offering has been developed. The final stages of the M-75 policy which is now on sale have not yet been resolved, as Michigan is in the process of formulating its own relative value scale. Our committees have been working on this for three years. Every doctor in the state was asked to send in a copy of the charges which he was making to his patients. Every specialty society and every county society were also asked to send in such scales. The response was sufficient to establish fee schedules, but was inadequate and non-existant in many areas where the doctors have since expressed dissatisfaction with the payments now

being offered. It is unfortunate that so many doctors and groups failed to cooperate and therefore did not get their ideas included in the temporary scale which is now being used. There are problems in setting up a relative value scale and a fee schedule which can not be solved in certain cases and many of those have been listed as "individual considerations."

SENIOR CITIZENS

The senior citizen problem is upon us and must be resolved. The deflation of the dollar and the resultant loss of purchasing power of fixed incomes, which had been established over the years, have contributed to this problem. Writers, speakers, governmental agents, Congress, all are talking about what to do for, and how to care for the retired person with an inadequate and meager income. Those who planned the Blue Shield program saw this coming twenty years ago and made provision insofar as they could. The age sixty-five retirement period had been established by the social security program and by the working people, who in the long period of depression were looking for jobs when jobs were not available. If the older person (sixty-five or so) could retire, his job would be available. This is a crass way of stating it, but it is one of the facts that stimulated "retirement at sixty-five."

The amounts of income established twenty and twenty-five years ago seemed fairly adequate at that time, but due to the constantly increasing costs of living and the decreasing value of the dollar, a certain group of these older citizens (about one third) must be cared for, and their medical benefits must be provided.

At its December 1958 session, the American Medical Association made pledges to help this group; Blue Shield throughout the nation is developing a new concept of care. Persons over sixty-five were not accepted in individual subscriptions but were accepted as members of groups and were allowed to continue their policies on an individual basis after retiring. New policies being developed now are accepting these subscribers at all ages. The new policy will be limited by the income scale and in Michigan will cover approximately 250,000 people or one third of those over sixty-five. Most of this limited group can pay a small premium each month but cannot buy the regular policy which the employed persons and the independent subscribers of all ages are purchasing.

As this is being written, the details of the Michigan program are not entirely complete but are sufficiently known. The Michigan Blue Shield offering to these senior citizens is a new concept and a new policy or contract, geared to their needs at a price that all of those except the indigent or recipients of social welfare only can pay. The returns to the doctors for their services will be about 70 per cent of the average charges being made to their paying patients. It will place these senior citizens in the area and benefits of the M-75A policy, the policy under $2,500 income limit.

The Compulsion

Demand for care of senior citizens is growing by leaps and bounds. Many commercial companies are offering policies which are too limited, pay inadequately. The particular low income group for whom these policies are being developed will be unable to meet these demands.

Congress is considering amendments to the social security bill (to which the medical profession has been protesting) which would provide hospital and surgical and medical coverage for those receiving social security benefits. That could include sixteen and a half million over sixty-five, two-thirds of whom have sufficient income so that they could buy their own insurance programs. It would also include the disabled and dependent. If Congress should pass this law, at least 15 per cent of the total population of the United States would automatically pass into governmental medicine.

The Forand Bill is now in Congress again, and there are indications pointing to a build up in propaganda which might stimulate its passage. Many groups are being heard, some of whom are known to favor national compulsory health insurance to cover everybody. These groups are urging passage of this social security amendment. Theirs could be an ulterior motive with some disturbing factors. The Physicians Forum among others has recently come out in favor of this social security amendment.

Whispers are being heard urging the doctors to go slow and not to consent to a reduced fee for senior citizens. If that sentiment spread it could be calamitous. The senior citizen build-up has reached the point where the medical profession *must* provide care for this particular group. No

excuses will be tolerated. If this program should fail and the care for this particular group of people not be forthcoming, the demand from labor and from numerous other groups will immediately force Congress to take over not only the limited income group (250,000 in Michigan) but the whole group over age sixty-five including the disabled and dependent and that could be done simply by an amendment to the social security law.

Medicine is still in the driver's seat and can meet this challenge, but it means the cooperation of our membership working together—rather than tearing down and establishing discord. Frankly, our feeling is that the great majority of the people to be covered under this new policy are now being taken care of by our doctors at reduced rates or no charges at all. This proposed program of Blue Shield will give doctors a reasonable return for their services.

IT CAN HAPPEN HERE

A short recounting of what happened in England could be apropos. The basic philosophy of medical practice in England is different from ours. Over there, through the ages, the individual doctor owned his practice and could sell it when he reached retirement age, or he could take in a partner or an assistant. The young doctor was handicapped in getting established. In America, the doctor establishes his practice by years of faithful service and contented patients, but he does not own them.

About 1911-12, the English government decided to nationalize the practice of medicine. The British Medical Association voted on how many wished to enter into the federal service and take care of their patients on a capitation basis—each one being assigned up to a certain limited number. The Association was opposed, but 17 per cent voted yes.

Medical leaders thought the proposition had been defeated, but the government had other ideas. They decided that if 17 per cent were in favor of the program they could put it across, depending upon these 17 per cent to take care of the people and with the thought that others would join. The government's idea primarily was to give medical service to vast numbers of citizens who up to that time had been unable to pay for it. The British Medical Association thought it would not work and remained calm and inactive.

The next step was an announcement that the program was to be attempted and that the government would buy the "practices" of those physicians willing to sell and any others who might change their minds. Before the Association and the doctors realized what had happened, the government had bought approximately 40 per cent or more of the practices, and the program was in operation.

The medical profession of Great Britain was nationalized through the defection of 17 per cent of its membership. Physicians there did not believe it could happen—but it did. These are historical facts which were determined by our own investigators in Michigan thirty years ago, which were reported just recently at the Blue Shield Conference by a British doctor who attended.

We hope it does not happen here.

"THE BIG LIE"

THE BIG LIE

RESOLVED: that the House of Delegates of the Michigan State Medical Society instruct Michigan Medical Service or any other company or organization that such lists (names of participating and non-participating physicians in the Michigan Medical Service) shall not be published or otherwise disseminated. The Journal of Michigan State Medical Society, January 1959, volume VIII, No. 1, page 39.

The above item from the *Genesee County Bulletin* of March 19, 1959, was sent to the Editor suggesting the "lie" be explained. The item referred to appeared in the January 1959 JOURNAL, Volume 58, No. 1, Section 2, which contained only the minutes of the House of Delegates Annual Session. The resolution was referred to the Reference Committee on Reports of The Council. The Report of the Reference Committee appears on page 51 of the same issue, as follows:

The Reference Committee approved this resolution, and slightly changed the wording in the "Resolved" portion to remove the word "instruct," rewording it to read:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society request the governing body of the Michigan Medical Service and of any other approved carrier that such lists shall not be published or otherwise disseminated."

* * *

The Reference Committee moved approval of this resolution as amended. (The motion was severally seconded, and was put to a vote, and was carried unanimously.)

The Editor denies the implication of untrue reporting. Publishing lists of participating and non-participating doctors—has never been done. Every time it has ever come up to The Council or to the Michigan Medical Service Board, it has always been voted down to protect our doctors. In the early years, the labor unions demanded a list and were told it could not be had. In two or three instances, they went to the extent of having some group call each doctor in an area asking him if he participated and then publishing those lists as participating and non-participating doctors.

The federal government, in its Medicare program and Veterans Administration program, asked for these lists and was denied them. Although this question has come up frequently, the MSMS Council and the Board of Michigan Medical Service have consistently tried to protect the membership from any such publication.

WHAT DOES BLUE SHIELD REALLY MEAN TO US?

Why should we doctors take a special interest in our local Blue Shield Plans?

For one thing, most Blue Shield Plans were created by our county and state medical societies, and most people identify Blue Shield as our profession's special contribution to medical care prepayment. If Blue Shield fails to satisfy its subscribers, many of them will quite properly put the blame on us.

We have another vital interest in Blue Shield: it embodies our own idea of the best way to provide prepaid care on terms that enable us to practice medicine the way we believe it should be practiced. Whether we work as solo practitioners or in groups, Blue Shield serves our patients without disturbing their relationships with us, and without affecting our professional services to them.

We are also legitimately concerned with Blue Shield because its payments account for an ever larger part of our professional incomes. We want to make sure, over the long pull, that Blue Shield can and will compensate us fairly and reasonably for the services for which these Plans assume the responsibility of compensating us.

Many other agencies are sponsoring medical care prepayment plans. Each of these programs, whether sponsored by industry, labor, consumer groups or private insurance companies, has its merits. But none of them is committed—as Blue Shield is—to guidance by our profession. If any or all these other agencies were to gain predominance in the medical care prepayment field, then our profession would no longer control the basic economy of medicine and the pattern of medical practice.

Blue Shield is the largest single factor in medical care prepayment today. It is making payments to physicians for services rendered Blue Shield patients at the rate of more than half a billion dollars a year, and nearly one quarter of all the people in America are Blue Shield members.

Blue Shield is big because medicine has a big job to do, and the people of America evidently like the way we're trying to do it. Blue Shield is big business—but it can't go anywhere without our help and guidance.

ELECTIONS

The death of L. Fernald Foster, M.D., Secretary of the Michigan State Medical Society and President of Michigan Medical Service, has necessitated the selection of new officers. At its meeting, June 17, Michigan Medical Service selected G. Thomas McKean, M.D., as its new President to carry on the work. At present, this will be an administrative service but not a full-time medical director program. James B. Blodgett, M.D., was selected to fill the position of Secretary in Dr. McKean's place. These will hold until the annual election in October. Robert L. Novy, M.D., was chosen to fill Dr. Foster's place on the Board of Trustees.

The Council of the Michigan State Medical Society was also faced with a vacancy which had to be filled. At their meeting on June 24, the Executive Committee selected D. Bruce Wiley, M.D., as the new Secretary, he being about the best informed and most available to take over these onerous duties. A. E. Schiller, M.D., being Vice Chairman, was moved up to the position of Chairman of the Council to fill the vacancy left by Dr. Wiley. This action was automatic and necessarily made by the Executive Committee whose action is subject to review at the next meeting of the complete Council, July 16.

HE'LL BE THERE

President's Page



W. B. Sellonstall

President

Michigan State Medical Society

The Michigan State Medical Society can't have an Annual Meeting of its House of Delegates without Fern Foster.

For 23 years, from the time the gavel sounded the opening until it called the closing of each session, Secretary Foster occupied his quiet place on the platform, listening to the ebb and flow of debate and carefully noting the actions taken; thus observing at close range the heartbeat of his favorite patient—M.S.M.S.

To envision the House in action without him is difficult.

This year as the Delegates carry on their deliberations and balloting, great issues will be decided—Care of the Aged, M-75, Socialized Medicine, Veterans' Care, Medicare—all these and more will occupy the attention of our elected representatives.

The great scientific session of the State Society will follow, complete with the clinical demonstrations, the medical presentations, the parties and the plans which have made the educational value and the fellowship of these meetings of important significance to every member (and the envy of our every sister state). Yes, we'll miss Fern, for this was his meeting too.

Don't misunderstand me. Things will not come to a jarring halt; they will go on in good shape because the spirit of public service that he imbued in Michigan Medicine will see to it that we do.

And we'll have a great meeting. Fern wasn't a "loner": The executives and the administrative personnel which he so carefully gathered together will still be there to help us. They'll be keeping the store, and seeing to it that the decisions made become projects completed.

Yes, we'll be there, and they'll be there and—depending on how close you look and what eyes you use—Fern will be there too.

L. FERNALD FOSTER, M.D.

On Wednesday, May 27, at 2:07 a.m., L. Fernald Foster, M.D., died in Detroit's Harper Hospital.

He had served as Secretary of the Michigan State Medical Society for twenty-three years and was President and one of the founders of Michigan Medical Service (Blue Shield).

Doctor Foster, sixty-seven, had been ill for more than two years with chronic leukemia.

A pediatrician who formerly had a large practice in Bay City, Doctor Foster gave up his private practice two years ago and moved to Detroit to devote full time to Blue Shield and the state society (MSMS).

Accomplished Much

Possessor of a winning personality, Doctor Foster was a power in medical affairs in Michigan and the American Medical Association for years.

He helped found the Michigan Heart Association and served as its first secretary.

He started the Michigan Rheumatic Fever Control Program as a member of the board of directors of the Michigan Society for Crippled Children and Adults.

He helped found the National Conference on Medical Service and was its first president.

Long Tenure

Beginning in 1936, Dr. Foster was elected annually as secretary of MSMS twenty-three times.

Three years ago, he was accorded the special honor of unanimous election by the House of Delegates as "President for a Day" at the Society's annual meeting.

A member of the Board of Directors of Blue Shield since it was founded in 1939, Dr. Foster was named president of the prepaid medical service plan in 1956. He became medical administrator of Blue Shield in 1957.

He was active in civic and fraternal affairs, and one of his hobbies outside the medical profession was the study of firefighting methods.

An Honorary Chief

He became an authority on fire equipment and installations and campaigned in behalf of fire departments in Bay City and other communities.

Dr. Foster was a member of the International Fire Chiefs Association and honorary fire chief of Manistique, Michigan.

Establish Foster Fund for Medical Education

Under the auspices of the Michigan Foundation for Medical and Health Education, Inc., the L. Fernald Foster family has established the FOSTER FUND FOR MEDICAL EDUCATION. Within the first week, contributions totaled more than $700.00. Memorial gifts from colleagues and friends are still being received at the following address: Foster Fund for Medical Education, Box 539, Lansing.

The fund will assist medical students who need financial aid in obtaining their medical degree.

Doctor Foster was active in creating the Michigan Foundation for Medical and Health Education, Inc., as an organization prepared to administer such separate Funds designed to aid medical students.

Born in Phillipsburg, N. J., in 1891, he graduated from Lafayette College in 1913 and from the University of Pennsylvania medical school in 1918. He became an honorary alumnus of Wayne State University medical college in 1954.

During World War I, he served in the Medical Reserve Corps.

Doctor Foster was a member of the American Academy of Pediatrics, the American Medical Association and the Wayne County Medical Society.

He was secretary-treasurer of the Bay County Medical Society from 1920 to 1957 except for the years 1938 and 1939 when he was president-elect and president.

A Civic Leader

For many years he was on the staffs of Mercy Hospital and Bay City General Hospital.

After moving to Detroit he became a member of the associate medical staff of Harper Hospital.

He was a member of the American Legion, Detroit Rotary Club, Kappa Sigma collegiate fraternity and Alpha Kappa Kappa, medical fraternity.

In 1910, Dr. Foster married Kathryn M. Keller, of Harrisburg, Pa. Their home in Detroit has been at 787 Harcourt Rd., Grosse Pointe Park.

A son, L. Fernald, Jr., of Michigan State University, and a daughter, Mrs. John Murray, of Grosse Pointe Park, also survive.

L. FERNALD FOSTER, M.D.



1942



1949



1951

These are random glimpses of L. Fernald Foster, M.D., as he carried out his duties as Secretary of M.S.M.S.

These photos are far from being representative of all of his activities, but they do show a gregarious man who loved people and enjoyed working for them.

He lived with purpose—the advancement of the profession he loved above all else. He succeeded.

Here, then, are some views of a devoted servant of medicine as he leads, speaks, guides, makes friends and wins the hearts of colleague and layman alike.



1950

A Figure That Will Become Legend



1954



1954

1955





1955

The Photos

1942—Annual Session, left to right, P. L. Ledwidge, M.D., Detroit, Speaker, House of Delegates; H. H. Cummings, M.D., Ann Arbor, President; Col. Henry R. Carstens, M.C., Retiring President, and Doctor Foster.

1949—Greeting doctor guests with President W. E. Barstow, M.D. at Annual Session.

1950—A light moment at Annual Session with Executive Director Wm. J. Burns.

1951—Manistique's Honorary Fire Chief L. Fernald Foster, M.D., and Mayor James H. Fyvie, M.D. (third from left) with town officials.

1954—Three great men of medicine, R. L. Novy, M.D.; Wilfrid Haughey, M.D., and Doctor Foster—Annual Session.

1954—In a huddle with friends of the press, Merle Oliver, *Detroit News;* Jean Pearson, *Detroit Free Press;* and Jack Pickering, *Detroit Times*—Annual Session.

1955—Retiring President Arch Walls, M.D., and President Wm. S. Jones, Sr., M.D., with Secretary Foster at the Annual Session.

1955—With Claude L. Weston, M.D. and L. J. Hirschman, M.D., at the Michigan Clinical Institute.

Doctor Foster Mourned; Many Comment on Loss to State

Tributes

Members of the medical profession and state leaders expressed a sense of profound loss at the death of L. Fernald Foster, M.D.
Here are samples:

In a letter to presidents and secretaries of component county medical societies President G. B. Saltonstall, M.D., said, "Fern was beloved by the thousands of people and patients who knew him. The medical profession of Michigan has lost not only a devoted advocate but a great and irreplaceable medical statesman as well."

Governor Williams' telegram to the family extended his sympathy and recalled how often Dr. Foster had made himself available to state officials in efforts to solve health problems.

The Muskegon Chronicle quoted MSMS Councilor Wm. M. LeFevre, M.D., "He comes as close as is humanly possible to being irreplaceable. No one other person could serve in so many capacities and so well."

By joint action, the Michigan Senate and the House of Representatives adopted a memorial resolution expressing their feeling at the passing of Dr. Foster. The resolution was introduced by Senators Perry Greene, Grand Rapids, and Lvnn Francis, Midland. The Senate took a standing vote on the passage of the resolution—a rare tribute.

Detroit Medical News Editor Ralph A. Johnson, M.D., wrote: "His last few months were lived under the cloud of illness. His courage and cheery nature never deserted him. He died as he had lived, working for his beloved profession. In the demonstration of devotion that are the deeds of accomplishment none can surpass him; in constancy and diligence in duty few can equal him. In gaiety of spirit, all can admire him. In the hearts of his many friends there is a void that can never be filled. It can, in time, perhaps, be healed."

In a public statement A. E. Heustis, M.D., State Health Commissioner, said. "It is with a real sense of loss that we learned of Dr. Foster's death. He always . . . has been of immeasurable help to us through the years. . . . Without his active interest and participation it would have been extremely difficult to establish the many hearing clinics . . . maternal mortality studies . . . the Michigan Cancer Co-ordinating Committee. His death leaves all of us in public health poorer."

Medical Assistants Establish Foster Lectureship

In early May, the Michigan State Medical Assistants Society established an annual lectureship, known as the L. Fernald Foster Lecture, to be given at the Educational Seminar.

In informing Doctor Foster of this action, the members of the Executive Committee wrote that the lectureship was being set up "in sincere appreciation of the help you have been to us and in recognition of the many hours spent in our behalf. . . ."

Donna Hislop, president, said that the first lecture is planned for the 1959 seminar this fall.

Physicians of State Contribute Blood

Physicians in communities throughout Michigan donated blood for transfusions during the losing fight to save the life of L. Fernald Foster, M.D.

When Doctor Foster's illness developed into leukemia in March, 1958, the MSMS Council resolved officially that whatever blood was needed for transfusions would be supplied.

Offers Pour In

When the word went out that blood was needed, physicians throughout the state offered to send teams to Detroit or contribute through local Red Cross chapters.

Employes of the Blue-Shield-Blue Cross organization also donated blood.

The transfusions were given at least twice a week over thirteen months.

Doctor Foster's illness began as a lymphosarcoma in the neck, which developed into lymphatic leukemia. Starting in March, 1958, he was treated with x-ray and nitrogen mustard chemicals.

Sensitive to X-Ray

The large number of transfusions was needed because he was especially sensitive to x-ray.

The hope in treating lymphatic leukemia is that if it is held in abeyance it may become stabilized so that the patient can live for a long time.

How to Handle an Avalanche—Michigan

Have you ever been responsible for a meeting or open house which no one attended? Pretty embarrassing isn't it? But if you think you had troubles, consider what would have happened if thousands and thousands of people had descended upon you, like herds of stampeding cattle. . . .

When the University of Michigan Medical Center, Ann Arbor, scheduled an open house for its new $58½ million medical school and school of nursing, February 22, the planning committee figured an estimate of 3,500 visitors was a bit on the optimistic side, considering the weather and experiences at other open houses in the area. Some of the doctors even hinted they would be delighted if 500 people showed up. When the event was over—after the worst traffic jam in university history—an exhausted patrolman estimated between 12,000 and 15,000 people had descended on the medical center. In the words of William Bender, editor of university Health Science Relations, here's what happened:

"We had decided to concentrate our exhibits on three floors of the new buildings and had selected 35 students to escort groups of 15 to 20 visitors on carefully-planned guided tours. Tours were to begin at 1:00 p.m. When we arrived at the center at 12:15 a hundred people were already lined up and waiting to get in.

"We started three groups of visitors on tours as soon as the first guides arrived at 12:50 but by then the lobby was packed with 500 visitors and a crowd was stacking up outside the front doors. In desperation we started two groups on a reverse tour, but instead of 20 in a group, 60 people squirted through the minute we opened the door. The lobby looked like the Black Hole of Calcutta.

"At this point the guide system, which had taken us six weeks to arrange, collapsed. After a hasty conference we dispatched the students to strategic points throughout the building and threw open all the doors to let the visitors wander on their own. By 2:00 p.m. every corridor in the three buildings was jammed. People were in the auditoria, classrooms and laboratories. They were on floors we hadn't planned to open. Seventy or so had discovered the student lounge and were making an afternoon of it over cokes and cocoa. Rumors reached us that several hundred were roaming the University Hospital corridors but we couldn't be bothered to track them down. Even the library was thrown open and a brick wave of humanity surged through to admire the furniture, draperies and an exhibit of rare medical books.

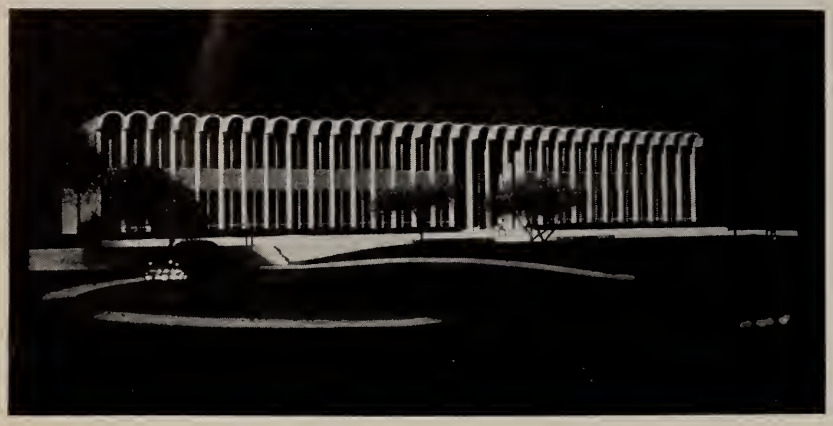
"Outside the police were fighting a losing battle against the automobiles. All available reinforcements were called up to handle the mess and cars were being directed to parking lots a quarter of a mile away. Discouraging? Not at all. Visitors seemed to enjoy a little walk on this fine winter day.

"By 4:00 p.m. most of the guides were still valiantly carrying on at their assigned posts although becoming noticeably hoarse. By 5:30 the crowd had thinned to a thousand and by 6:00 p.m. the buildings were closed."

What had caused the unexpected onslaught? Exceptionally thorough advance work with the press had resulted in excellent publicity in all communications media. Five days before the event a press conference had been held and science writers were supplied with a 15-page mimeographed fact book (in the Exchange) containing a brief history of the medical school, detailed explanations of three departments and their exhibits, a statement by the Dean, construction information and biographies of key personnel. Still photos, TV clips and interviews were also given at the conference and reporters were taken on a tour of the buildings. As a result stories and pictures appeared in newspapers and on TV as far away as Toledo, Benton Harbor and even Escanaba. To top it off the weather, which had been consistently bad all week, turned suddenly spring-like the very day of the open house.

After the ordeal was over, Bill Bender had these words of advice for anyone planning an open house:

"Never limit your planning to a maximum number of people no matter how optimistic it might seem. Know what you will do if you get swamped. Be sure to *have a small group of lieutenants not committed to specific tasks* to use as shock troops at crictical times and places. Remember that the job of PR doesn't end with advance publicity. Decisions and actions you may have to make during the actual open house can be as demanding as anything preceding the event."—The PR Doctor, A.M.A., Communications Division, May, 1959.



To Serve You Better

Begin New MSMS Headquarters

If you were to eavesdrop on the receptionist in the new MSMS headquarters following its completion next year, you might hear something like this:

"May we help you, Doctor?"

"Your committee meeting will begin soon in the Directors' Room on the Second Floor."

"Yes, Doctor, the Senator called and is expecting you at the legislature at 4:00 p.m."

"The PR Library is right this way and there you'll find the medical-socio-economic material you're looking for."

Yes, it won't be long now until the medical profession's service center is ready to operate. By June of 1960, the expanded facilities of this modern office building will be at your disposal.

The building location is ideally suited for use by busy physicians. Situated at Highway M-78 and Abbott Road in East Lansing, the headquarters will be readily accessible from all points without hindrance from heavy city traffic. The accompanying map sketch shows State and U. S. routes that lead to the MSMS site.

There's more good news, too, for today's mobile doctor of medicine. The parking problem is finally and everlastingly licked. At least it is in plans for your new building. The new headquarters' parking area will accommodate 50 cars and can be expanded if needed.

Fine residential areas surround the MSMS property, with Whitehills Estates immediately to the east and north. Since the purchase of this site, the Michigan Education Association has obtained nearby land on which it intends to construct a new office building in the near future. Another neighbor will be the East Lansing Presbyterian Church.

On the cover of this issue of JMSMS are photos of the architect's model of the building. Reproductions of views of the model also appear within this article. The perspectives of these photos are planned to show the edifice in relation to the site and to depict the structure's inherent dignity. The site is blessed with both deciduous and evergreen trees. The architect placed the building to take best advantage of the natural plantings.

So much for the exterior and grounds. Now, the interior.

As you enter the building from the long plaza through revolving doors, you will be greeted by a receptionist-telephone operator located in the center of a commodious lobby, two stories high. This area is the hub of the building and no office is more than 40 feet distant.

New Telephone System

Before describing the first floor plan, you should know that a new telephone system is being installed for the convenience of the hundreds of MSMS members who call the headquarters. Facilities at 606 Townsend were limited and caused delays in making connections. The new system will have additional lines and will be operated by a modern keyboard console rather than by the

usual PBX Board with its plug-in cords. The console set-up is extremely versatile permitting both inside and outside conference calls with no loss of transmission. This is but one example of the care and thought that has been given to convenience of members as building plans progressed.

First Floor Plan

On the first floor are located the offices of the MSMS President, Editor, Business Manager and Bookkeeper, and an extra office for future growth. Also, in the western wing is located the Stenographers' Room and an all purpose room which may be used for catered dining or as a lounge for large committee meetings or educational gatherings.

The basement, euphemistically called the lower level, contains workshops and storage rooms. For example, all mail will be processed there in a special room equipped with the latest devices to speed important correspondence to MSMS members. Here, also, will be rooms to store radio transcriptions, pamphlets, and the motion picture films from the PR Library. Cleaning and repair of films will be performed here also. In addition, recording equipment, tape recorder, and other audio-visual equipment will be set up in a specially designed room which subsequently can be used for motion picture production, radio and television broadcasting.

Committee Rooms

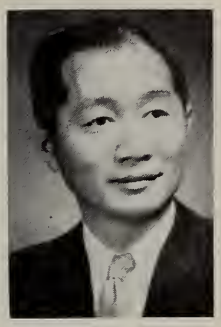
The second floor will house the Directors Room, and a connecting smaller Committee Room which will provide ample space for even the largest MSMS committee meeting. Opposite this, the Executive Director and his Assistant will be installed. The voluminous files of the Director's office thus will be at the immediate disposal of meetings in the Directors Room.

PR Library

Down the hall and across the attractive ramp bridging the lobby is the Public Relations Library, crammed with research data, periodicals, surveys, 11 years of news clippings, reference works, audio-visual material for TV or speech presentations and educational tape recordings. A part-time librarian will be on hand to efficiently operate this MSMS service to members. Other offices include the Public Relations Counsel and staff and the Secretary of the Medical Care Insurance Committees.

You have just been on a written tour of the new headquarters building of the Michigan State Medical Society. It is designed to serve the medical profession and the public. The structure symbolizes the dignity and high purpose of the medical profession. It will be erected in tribute to the past and dedicated to the future.

YAMASAKI, ARCHITECT, IS WORLD FAMOUS



Minoru Yamasaki, A.I.A.

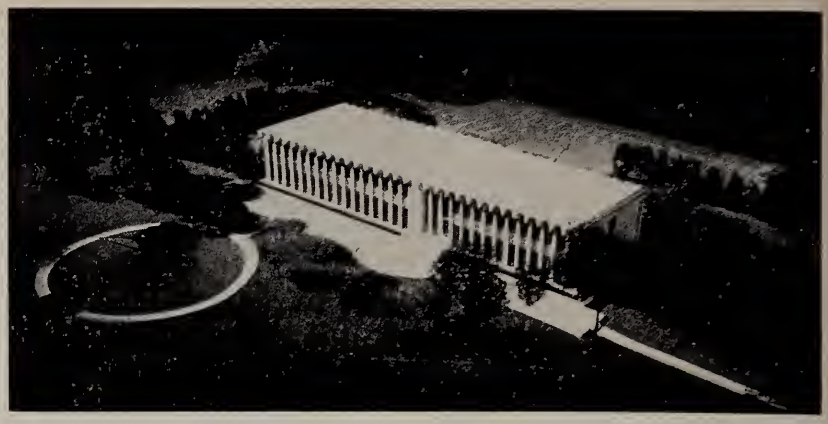
The gifted principal of the firm Minoru Yamasaki & Associates is a soft-spoken man of immense ability who has rocketed to the top of his profession within the last 20 years.

His current projects range the world and he is a familiar figure on the jet-liners which shuttle him from Birmingham, Michigan, to points on the American and European continents where his designs are abuilding.

This year, the architectural firm of Minoru Yamasaki & Associates, Birmingham, was cited by the American Institute of Architects for two building designs—First Honor Award for McGregor Memorial Community Conference Center, Wayne State University, Detroit, and an Award of Merit for Benjamin Franklin Junior High School, Wayne, Michigan.

These are not the first honors to be received by Mr. Yamasaki. In 1957, the Architectural Institute of Japan extended its Top Design Award for the Consulate General's Offices in Kobe. That same year, the Museum of Modern Art selected Mr. Yamasaki's St. Louis Airport design for a special exhibition, after it first received the 1956 Honor Award from the A.I.A.

Mr. Yamasaki was born in Seattle, Washington, and received his Bachelor of Architecture at University of Washington. His graduate work was taken at New York University, where he also served as instructor.



This view shows the attractive landscaping and the parking area behind the new MSMS Headquarters.

Headquarters Grows with Society

TRACE DEVELOPMENT SINCE 2020 OLDS TOWER

Twenty-four years ago, the MSMS headquarters consisted of two small offices on the 20th floor in Lansing's tallest building, then known as Olds Tower. A staff of three, including the new Executive Secretary, Mr. William J. Burns, served the 3,410 members then listed in the MSMS roster.

"2020 Olds Tower" was the familiar address of MSMS for the next 16 years. During that time, the membership had grown to 4,667. Eight employes were handling the organizational and educational details of the association. In 1951, for reasons of economy and efficiency, MSMS left its downtown address and purchased a converted Victorian residence at 606 Townsend Street.

As one MSMS officer recalls, "When we moved into the Townsend headquarters, the Society was fearful that we had too much space. Some of us seriously considered leasing part of the home to other organizations, because we firmly believed that MSMS had grown about as big as it could grow. How wrong we were."

Fortunately, the space was kept for MSMS use. For, now in 1959, every available foot of floor space is filled with equipment, personnel and records. Not only has membership grown, but the demand for MSMS services has multiplied too. Especially in the areas of prepaid medical coverage, public relations and professional education.

Wm. S. Jones, Sr., M.D., chairman of the MSMS Big Look Committee, said, "On May 31, 1959, MSMS membership totaled 6,211—an increase of almost 2,000 members in eight years. The Townsend building has served us well, but we have outgrown it. The physical plant is just not capable of handling the demands of our expanding Society. The new headquarters in East Lansing has been planned with conservative foresight. We believe that our present and future needs are provided for and that the medical profession will have just cause for pride in its new and modern quarters."

MSMS *servant to members and public*

An outstate physician approached President G. B. Saltonstall, M.D., at a recent meeting and said, "What are you fellows doing up there in Lansing to earn your keep?" Although the question was put in a jest, Doctor Saltonstall reports that he spent an hour and a half explaining the varied functions of MSMS. Part of what Doctor Saltonstall must have said is contained in informational pamphlet "MSMS Progress". Here are some highlights:

In a typical year, attendance at 107 Michigan State Medical Society committee meetings totaled over 1,400 MSMS members. These men traveled a total of 333,400 miles in addition to staff members who provided secretarial coverage for the meetings. Their deliberations directly affect the spending of over $100,000,000 annually in Michigan, and the health of this State's 7,500,000 residents.

In meeting the scientific needs of MSMS members during a representative year, MSMS brought the new and the news in medical science to 4,196 M.D.'s, who gathered on 32 separate occasions to hear a total of 102 outstanding medical lecturers.

MSMS is a stabilizing force in the health efforts of 140 statewide groups by maintaining liaison with these governmental, voluntary, and medical specialty units.

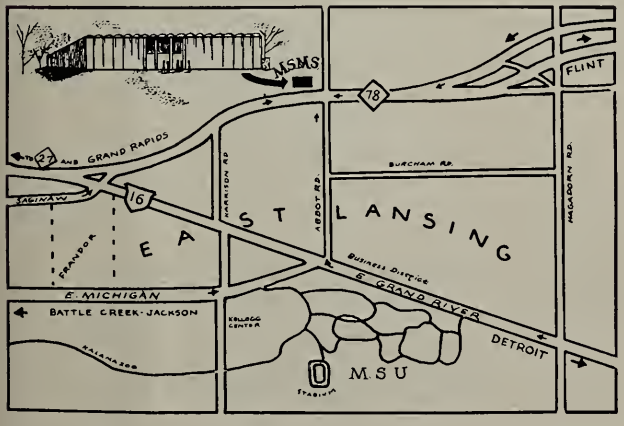
Since 10 per cent of all legislation directly affects Medicine, the myriad personal contacts in Lansing, in Washington, and in the hometowns of legislators, require some 4,000 working hours of staff time annually, and countless hours of effort by MSMS members.

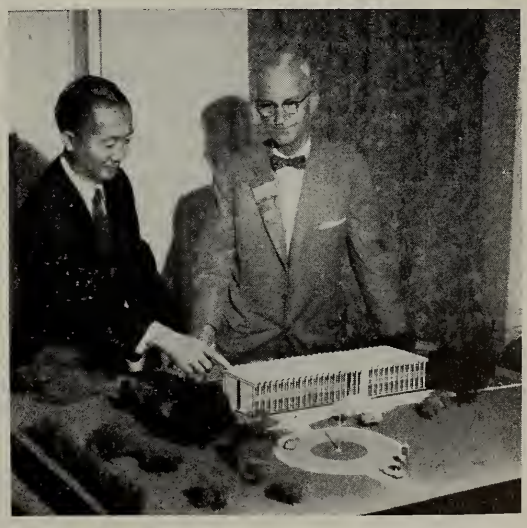
Like the traditional iceberg whose greatest bulk is submerged, many MSMS services are not readily apparent or frequently brought in direct contact with the individual member. The processing of 200,000 pieces of mail in MSMS offices is an indication of the bustle which goes on behind the façade of calm.

The ultimate purpose of all efforts to obtain good public relations is to maintain freedom. MSMS tells the story of Michigan medicine. To do so, work with and for the press publicizes MSMS activities. Motion pictures, filmed and furnished by the PR Library, were shown before live audiences for total running time of 151 hours, television and radio programming totaled nearly 500 hours, and MSMS distributed almost 100,000 pamphlets on timely matters of health import.

An obvious dividend to MSMS members is the monthly publication of THE JOURNAL—Michigan's scientific review.

Of course, this is only part of the story, but it begins to answer the question.





The model of the new headquarters was first displayed at the MSMS Annual Session in 1958. Shown discussing the scaled model are William S. Jones, M.D., right, Menominee, chairman of the MSMS Big Look Committee, and Architect M. Yamasaki.

Annual Committee Reports

ANNUAL REPORT OF THE POSTGRADUATE MEDICAL EDUCATION COMMITTEE—1958-1959

The Committee on Postgraduate Medical Education met on January 15, 1959. The postgraduate program for the fall of 1958 was reviewed from the standpoint of attendance, subjects presented, and the interest shown in the program in the participating centers. Suggestions of topics for the spring 1959 program were made. This program has been carried out, and the following attendance report for the year is given below.

Center	*Fall*	*Spring*	*1958-59*
Alpena	19	22	24
Battle Creek	43	48	63
Bay City	38	31	45
Cadillac	—	37	37
Jackson	66	65	78
Lansing	74	68	106
Midland	39	—	39
Muskegon	65	74	85
Niles	—	44	44
Port Huron	37	—	37
Roscommon	13	11	16
Traverse City	36	—	36
Upper Peninsula:			
Escanaba	16	13	17
Houghton	12	7	15
Iron Mountain	17	19	21
Ironwood	11	12	14
Marquette	17	26	29
Menominee	23	26	32
Sault Ste. Marie	19	22	31
	545	525	769

The following subjects were presented during the year:

Fall Program

Anticoagulants
Diabetes
Lipid Metabolism
New Drugs in Medicine
Office Gynecology
Psychiatric Techniques of Interest to all Physicians
Staphylococcus Infections
Tranquilizers

Spring Program

Clinical Usefulness of Serum Electrophoretic Patterns
Dermatological Conditions of Interest to all Physicians
Diagnosis and Therapy of Heart Lesions
Fat Metabolism and Vascular Disease
Myocardial Infarction without Diagnostic Electrocardiographic Changes
Neo-natal Care
Pediatric Problems
Psychiatric Techniques of Interest to all Physicians
Staphylococcus Infections
The Acute Surgical Abdomen
The Clinical Use of Coronary Vasodilators
The Treatment of Diabetes Mellitus

Physicians who participated in the teaching program were: Peter G. S. Beckett, M.D., H. Waldo Bird, M.D., Walter S. Callahan, Ph.D., Edward A. Carr, Jr., M.D., Halvor N. Christensen, Ph.D., A. C. Curtis, M.D., Ivan F. Duff, M.D., Stefan S. Fajans, M.D., Stuart M. Finch, M.D., C. Thomas Flotte. M.D., F. Bruce Fralick, M.D., John R. G. Gosling, M.D., Frank W. Guthrie. M.D., Roger W. Howell, M.D., Richard D. Judge, M.D., Frederick A. J. Kingery, M.D., Donald R. Korst, M.D., George H. Lowrey, M.D., George Morley, M.D., William J. Oliver, M.D., Maurice H. Seevers, M.D., John M. Sheldon, M.D., Herbert E. Sloan, M.D., Aaron M. Stern, M.D., David H. P. Streeten, M.D., Harry A. Towsley, M.D., A. Burgess Vial, M.D., Ernest H. Watson, M.D., and Park W. Willis, III, M.D.

The request for the teaching program in Niles was approved and the program was given in that area in the spring of 1959.

An editorial on the expansion of the postgraduate medical education teaching program was prepared by the chairman, and appeared in the May journal of the Society.

The final meeting of the Committee was held on June 17, 1959, at which time the program for the fall 1959 was decided upon.

The intramural courses at the University of Michigan, together with attendance, are listed below:

Intramural Courses	*Attendance*
Anatomy	39
Basic Sciences and their Clinical Application	42
Clinical Exercises for Practitioners	51
Clinical Internal Medicine	46
Diagnostic Radiology	7
Diseases of the Blood and Blood-forming Organs	27
Diseases of the Heart	16
Electrocardiographic Diagnosis	36
Foreign Physicians	8
Gastroenterology	63
Interns, Assistant Residents and Residents	380
Metabolism and Endocrinology	38
Obstetrics and Gynecology	33
Ophthalmology	140
Otolaryngology	36
Pediatrics	32
Pediatrics (Academy Course)	63
Pulmonary Diseases	16
Radioactive Isotopes, Clinical Use of	16
Recent Advances in Therapeutics	39
Rheumatology	10
Surgical Pathology Slides	19
	1157

The Committee wishes to thank all the physicians who participated in this teaching program. It recognizes that their splendid co-operation in this effort is in great part the key to its success. The Committee is deeply grateful also for the support and encouragement given to this program by the Michigan Department of Health, the Wayne State University College of Medicine, and the University of Michigan Medical Center.

Respectfully submitted,
J. M. Sheldon, M.D., *Chairman*
E. I. Carr, M.D.
H. H. Cummings, M.D.
G. J. Curry, M.D.
M. A. Darling, M.D.
A. C. Furstenberg, M.D.
J. R. Heidenreich, M.D.
D. H. Kaump, M.D.
R. M. McKean, M.D.
D. W. McLean, M.D.
E. J. Neill, M.D.
F. P. Rhoades, M.D.
J. M. Robb, M.D.
D. J. Sandweiss, M.D.
G. H. Scott, Ph.D.
R. M. Stow, M.D.
H. A. Towsley, M.D.
S. B. Winslow, M.D.
E. S. Woodworth, M.D.

ANNUAL REPORT OF THE PREVENTIVE MEDICINE COMMITTEE—1958-1959

The committee, whose function is to co-ordinate the efforts of the various committees working in the broad general field of disease prevention, has continued its endeavors throughout the past year.

1. *The Rheumatic Fever Committee* has suggested an enlarged scope of program in co-ordinating the whole field of juvenile heart disease. It has a program ready for development, and final approval of it, by The Council, has been deferred pending a correlation with the Michigan Heart Association.

2. *The Cancer Control Committee* has not been active during the last year, inasmuch as its work function has been assumed by the Michigan Cancer Co-ordinating Committee. Consideration of reorganization or discontinuance of this group is awaited from The Council.

3. *The Maternal Health Committee* has continued to pursue its studies of causes of maternal and infant morbidity and mortality.

4. *The Venereal Disease Control Committee* is watching with interest the T.P.C.F. tests, now being employed by the State Laboratory—no conclusions as yet. It notes with trepidation the increasing V.D. rate in certain age groups.

5. *The Tuberculosis Control Committee* has been involved in legislation on use of T.B. beds for mental health and will continue to watch with interest the development of this program.

6. *The Industrial Health Committee* has continued to urge interest in the health situation in small plants throughout the State, where little work is done outside of purely traumatic conditions.

7. *The Mental Health Committee* recommends that insurance carriers give the same coverage for mental illness as for other illnesses or accidents.

They have also been active in developing increased training facilities for generalists in the recognition of mental illness.

The Committee has been deeply concerned with the legislation regarding the licensing of psychologists.

A subcommittee is working on the problem of the addict.

8. *The Committee on Postgraduate Medical Education* continues to revise and develop its program in light of the changing concepts and new developments in the practice of medicine.

9. *The Geriatrics Committee* has actively promoted its campaign for training and appreciation of the problems of the aged.

10. *The Iodized Salt Committee* continues its educational program in close co-operation with the State Health Department to avail themselves of the statistical material available.

11. *The Scientific Radio Committee* continues with its series of weekly programs on pertinent medical topics.

12. *The Committee on Diabetes* has co-ordinated its program with the Michigan Diabetes Association, through its Michigan Diabetes Week program.

Respectfully submitted,

B. M. Harris, M.D., *Chairman*
I. A. LaCore, M.D., *Vice Chairman*
B. E. Brush, M.D.
M. A. Darling, M.D.
R. R. Dew, M.D.
S. T. Harris, M.D.
R. M. Heavenrich, M.D.
A. E. Heustis, M.D.
F. A. Jones, Jr., M.D.
D. F. Kudner, M.D.
W. M. LeFevre, M.D.
A. H. Price, M.D.
W. B. Prothro, M.D.
R. I. Rapport, M.D.
W. S. Reveno, M.D.
J. M. Sheldon, M.D.
Frank Stiles, Jr., M.D.
H. A. Towsley, M.D.

ANNUAL REPORT OF THE MENTAL HEALTH COMMITTEE—1958-1959

During the year ending May, 1959, the Committee on Mental Health held one general meeting.

Members participated in the following meetings.

1. The Fifth Annual Conference of Mental Health Representatives of the State Medical Associations sponsored by the Council on Mental Health of the American Medical Association.

2. Preventive Medicine Committee Meeting of Michigan State Medical Society.

3. Organizational meeting of Committee Chairmen of Michigan State Medical Society.

A number of mental health bills, which had been introduced in the State Legislature, were studied by the Committee. Conclusions on these bills were submitted for the information of the Legislative Committee.

A subcommittee continued to work on definitions of psycho-therapy and counseling.

The Committee felt that it would be advisable that a psychiatrist be on the Board of Directors of Michigan Medical Service.

Your resigning Chairman wishes to thank the Committee on Mental Health for their interest and support and it is our hope that the activities of the Mental Health Committee have been of some assistance to the Michigan State Medical Society.

Respectfully submitted,

J. M. Dorsey, M.D., *Chairman*
I. A. LaCore, M.D., *Resigning Chairman*
Z. S. Bohn, M.D., *Vice Chairman*
C. P. Barker, M.D.
H. Waldo Bird, M.D.
P. N. Brown, M.D.
W. E. Clark, M.D.
R. O. Creager, M.D.
T. J. Heldt, M.D.
L. N. Hershey, M.D.
W. T. Hyslop, M.D.
R. A. Jaarsma, M.D.
R. F. Kernkamp, M.D.
M. H. Marks, M.D.
J. J. Marra, M.D.
F. O. Meister, M.D.
C. J. Mumby, M.D.
W. H. Obenauf, M.D.
R. W. Waggoner, M.D.
H. B. Zemmer, M.D., *Advisor*

ANNUAL REPORT OF THE RHEUMATIC FEVER CONTROL COMMITTEE—1958-1959

Our Committee met three times since the annual report one year ago. The meetings were on Sept. 10, 1958, Dec. 10, 1958 and April 15, 1959.

At the September meeting Desk Reference Card No. 2 was finally revised and subsequently printed and distributed to the membership of M.S.M.S.

At the same meeting a subcommittee was appointed to re-evaluate the Committee's work, where it should go and how this should be accomplished.

The Subcommittee, consisting of S. T. Harris, M.D., Carleton Dean, M.D., R. E. Fisher, M.D. and H. H. Riecker, M.D., met at the home of Dr. Harris on Oct. 5, 1958 and came up with a program as follows:

"The Subcommittee wishes to present the following recommendations to the Rheumatic Fever Control Committee at its next meeting.

"A. It is suggested that the name of the Committee be changed to "Rheumatic Fever and Juvenile Heart Disease Committee."

"B. The functions of the Committee should be to:
(1) Promote the education of the family physician so that he may make a more accurate diagnosis of cardiac abnormalities in children and improve the care of those children who are found to have rheumatic fever or some form of juvenile heart disease.
(2) To make available facilities, services and consultation to any physician so that he may better evaluate his patients with heart disease or suspected heart disease, of the juvenile type.
(3) The Committee should continue to evaluate current programs in the prophylaxis of rheumatic fever and its control. This information should be summarized for the physician the Committee represents.

"C. The Committee should investigate the possibility and advisability of establishing a library of diagnosed cases and pathologic protocols. This is accomplished by establishing liaison with the Michigan State Pathological Society.
"D. The Committee should investigate the advisability of a streptococcus control program for the entire State including the encouraging of culturing and typing of cases of acute streptococcus infection and the better reporting of cases of streptococcus infection and rheumatic fever.

"E. That a full-time medical coordinator should be employed to implement the above program."

This was approved by the whole Committee at its meeting on Dec. 10, 1958. Later this was approved by the Executive Committee of The Council, MSMS, except the last item "E".

The minutes of the meeting for April 15, 1959 have not yet been approved by the Executive Committee of The Council, MSMS. However, the Rheumatic Fever Control Committee at this meeting approved a program whereby the Michigan Heart Association would hire a full-time M.D. to act as Medical Coordinator of the Rheumatic Fever program and Medical Director of Michigan Heart Association. He would be paid by Michigan Heart Association but his activities with the Rheumatic Fever program would be subject to the policies of MSMS.

The future of the Rheumatic Fever Control Committee is at present very much obscured. If The Council MSMS decides not to approve a coordinator as outlined above; the work of the Committee is apt to produce very little and might better be abandoned.

Respectfully submitted,

Scott T. Harris, M.D., *Chairman*
R. E. Fisher, M.D., *Vice Chairman*
E. W. Adams, M.D.
R. R. Barber, M.D.
J. G. Bielawski, M.D.
D. R. Boyd, M.D.
Carleton Dean, M.D.
D. P. Gage, M.D.
T. B. Hill, M.D.
C. L. Hoogerland, M.D.
Clifford House, M.D.
J. D. Littig, M.D.
N. L. Matthews, M.D.
W. B. Prothro, M.D.
H. H. Riecker, M.D.
E. E. Schumacher, Jr., M.D.
D. S. Smith, M.D.
R. M. Stow, M.D.
B. J. Sweeney, M.D.
R. D. Tupper, M.D.
Mr. James Gerity, Jr., *Advisor*
Mr. William A. Wiard, *Advisor*

ANNUAL REPORT OF IODIZED SALT COMMITTEE—1958-1959

Two meetings of the Iodized Salt Committee were held during the year, the first on November 4, 1958, at the home of Dr. Harry A. Towsley in Ann Arbor, and the second on March 25, 1959, at the Sheraton-Cadillac Hotel in Detroit.

At the meeting on November 4, 1958, Dr. William H. Beierwaltes and Dr. J. K. Altland were guests of the Committee. The following topics were discussed: (1) Reports on the preparation of our movie showing the importance of the use of iodized salt, (2) Correspondence and discussion with the Salt Producers Association, and (3) Publications and TV and radio programs of an educational nature. Plans were made for a closer co-operation with the Michigan Department of Health so that we may avail ourselves of the many statistics that they gather.

Dr. William Beierwaltes and Dr. J. K. Altland of the Health Department were made members of our Committee, and both attended the meeting of March 25, 1959. We had as guests at this meeting Frances Krimmel of Chicago and Charles F. Moore of St. Clair, President Diamond Crystal Salt Company, both representing the Salt Producers Association. At this meeting plans for the production of a film on the advantages of iodized salt were formulated. The scientific exhibit on iodized salt to be presented at the annual sessions of Michigan State Medical Society in Grand Rapids in September, 1959, was discussed. Miss Krimmel and Mr. Moore made valuable suggestions regarding our work and publicizing iodized salt, and a general discussion of all of our problems proved very valuable.

Dr. Harry Towsley spoke on "Endemic Goiter" before the 1959 Michigan Clinical Institute meeting in Detroit.

Respectfully submitted,

B. E. Brush, M.D., *Chairman*
H. A. Towsley, M.D., *Vice Chairman*
J. K. Altland, M.D.
Wm. H. Beierwaltes, M.D.
J. B. Blodgett, M.D.
J. R. Carney, M.D.
R. C. Moehlig, M.D.
R. L. Rapport, M.D.
R. L. Waggoner, M.D.

ANNUAL REPORT OF THE MATERNAL HEALTH COMMITTEE—1958-1959

1. Our functions have been much as last year with three meetings held—in Detroit, Lansing and Muskegon.
2. The Subcommittees are unchanged except that the publications group has been expanded to include the entire Maternal Health Committee. We were invited by the Publication Committee MSMS to submit six editorials for the Journal which, if approved, will be published under the heading of "Obstetrical Brevits." These editorials are in my hands and will be forwarded to the Publication Committee.
3. The Maternal Health Committee co-operated in the Program for Expectant Parent Teachers at Walden Woods, May 1959. Dr. Hersey has headed this subcommittee.
4. The Medical Liaison Committee has attempted, under Dr. C. M. Bell, to contact county maternal health committees—purpose—to encourage maternal health and perinatal mortality interest. The results have been slow in forthcoming but we hope that publication of our "Obstetrical Brevits" may help.
5. The maternal mortality tissue registry at Ann Arbor is now in operation. Autopsy material from maternal death cases should be registered for future study.
6. The Committee has discussed on several occasions

the need of more public relations publicity. For example, the maternal mortality has been strikingly reduced. Should not the public be so informed instead of just reading of the lack of emotional gratification extended to obstetrical patients? Should we not sell the truth of what modern obstetrics has meant in the way of safety to thousands of people?

7. I wish to express my thanks to the members of the Maternal Health Committee and to the members of the Michigan State Health Department for a very pleasant year.

Respectfully submitted,

Francis A. Jones, Jr., M.D., *Chairman*
H. A. Ott, M.D., *Vice Chairman*
F. W. Bald, M.D.
C. A. Behney, M.D.
C. M. Bell, M.D.
H. R. Brukardt, M.D.
Goldie B. Corneliuson, M.D.
E. C. Galsterer, M.D.
W. F. Goins, M.D.
J. E. Harryman, M.D.
E. F. Hersey, M.D.
Wm. W. Jack, M.D.
W. C. Lambert, M.D.
H. W. Longyear, M.D.
A. G. McQuaig, M.D.
N. F. Miller, M.D.
H. R. Mooi, M.D.
H. W. Sill, M.D.
C. S. Stevenson, M.D.
P. E. Sutton, M.D.
D. W. Thorup, M.D.
J. H. Tisdel, M.D.
C. E. Toshach, M.D.
R. F. Trescott, M.D.
H. R. Williams, M.D.
Mary Lou Byrd, M.D., *Advisor*
J. V. Fopeano, M.D., *Advisor*

ANNUAL REPORT OF THE VENEREAL DISEASE CONTROL COMMITTEE—1958-1959

Two meetings were held by this Committee during the year 1958-1959 and several matters of continuing importance were considered.

1. Progress reports on the results of TPCF tests indicated that this test is of distinct value in the evaluation of the "biologic false positive" problem. Due to certain routine difficulties, a rule was finally made limiting the tests to those patients having no history of previous treatment for syphilis. It was voted by the Committee that the Michigan State Health Laboratory is one of the few state laboratories providing such excellent coverage.

2. Doctor John Cowan presented a report on a hospital serologic survey which has been carried out during the past year. There were 141 reporting hospitals doing routine serologic testing out of 190 hospitals to which questionnaires were sent. Of the 141, ninety-four provided adequate comparable data for study. There were forty-nine hospitals that do not do routine testing. The results were presented in an excellent statistical study and appear with minutes as exhibits. It was noted by the Committee that the Commission on Hospital accreditation no longer requires routine serologic testing. Both guests, E. W. Thomas, M.D., of New York and McCellan B. Conover, M.D., of Flint stated that the USPHS has recommended to this Commission that hospitals be urged to do routine tests on all admissions. The Committee concurred in this recommendation.

3. Further consideration of change in the premarital law was undertaken. There was some conflict of opinion between the view that the present law works an unnecessary hardship on many people, and the view that the political aspects of attempting modification of the present law might result in total repeal and consequent loss of control. An attempt will be made to reconcile the two viewpoints and present recommendations satisfactory to both at a later date.

4. The failure of reporting and follow-up in cases of venereal disease would appear to be the weakest point in the control of venereal infection. A study of gonorrhea reporting by Doctor John Cowan and a report on a telephone survey in Flint by Doctor Conover, using the medical assistants for reports, showed a high hidden incidence of gonorrhea.

This Committee has recommended to the Advisory Committee of the MSMS that the MSMS be encouraged to promote more complete reporting of all active VD cases to local health departments.

5. It was pointed out in a report by Dr. John Cowan that there were 51 new admissions to mental hospitals during the past year of patients with psychoses due to syphilis and that this considerable public expense could be prevented by early case finding and treatment.

6. The Committee recommended that a brochure by Evan W. Thomas, M.D., entitled "Management of Syphilis" be purchased by the Michigan Department of Health and be distributed to all physicians in the State of Michigan and to all the medical students in the State.

Respectfully submitted.

Frank Stiles, Jr., M.D., *Chairman*
V. W. Cambridge, M.D.
J. A. Cowan, M.D.
A. C. Curtis, M.D.
R. H. Grekin, M.D.
P. J. Hettle, M.D.
H. L. Keim, M.D.
R. I. Lurie, M.D.
H. C. Tellman, M.D.
Kornelius VanGoor, M.D.
R. S. Breakey, M.D., *Advisor*

ANNUAL REPORT OF THE GERIATRICS COMMITTEE—1958-1959

The Committee met three times during the year, once each in Detroit, Lansing, and Ann Arbor. The local Geriatric Committees met with the State group each time with the hope of developing some added interest in the care of older people.

A variety of subjects were discussed at each meeting. Ways of improving the care of patients in nursing homes occupied considerable time. The need of more medical personnel on local boards of supervisors was suggested as a means to improve the expenditure of funds allotted for the health and welfare of older patients. The licensure of all nursing homes throughout the State to include those caring for even one or two patients was investigated by a subcommittee of our group with an affirmative recommendation.

The question of persons eighty years of age or older being capable of driving an automobile was considered again, and it was decided that each case must be evaluated separately, rather than make an arbitrary age restriction.

In at least one area of the country, applicants for old age assistance are given the privilege of having a physical examination. This procedure would detect illness before the person had become incapacitated and with appropriate treatment might prevent costly hospital care. It is hoped that some county society will assume this responsibility as a pilot project.

The AMA recommendation that physicians charge less for the care of older individuals with low incomes received general approval, and some plan of implementing this plan is forthcoming.

Plans for the 1961 White House Conference on Aging are in the making, and to this end a Joint Council of four state organizations involved in the health care of older persons was organized. The Michigan Hospital Association, the State Dental Society, the Nursing Home Association, and the Michigan State Medical Society have all appointed representatives for this new

State group. From the combined efforts of all these groups, much should be accomplished in the next two years.

The September issue of The Journal of the Michigan State Society will be devoted entirely to Geriatrics. It should be an excellent compilation of much that is known about the care of our aging population.

Respectfully submitted,

A. Hazen Price, M.D., *Chairman*
F. C. Swartz, M.D., *Vice Chairman*
F. W. Baske, M.D.
H. B. Bennett, M.D.
J. P. Bentley, M.D.
J. R. Brink, M.D.
S. E. Chapin, M.D.
J. W. Clay, M.D.
E. F. Crippen, M.D.
P. C. Gittins, M.D.
A. H. Hirschfeld, M.D.
Jack Rom, M.D.
Herbert Rosenbaum, M.D.
C. H. Ross, M.D.
L. F. Segar, M.D.
C. W. Sellers, M.D.
V. K. Volk, M.D.
S. C. Wiersma, M.D.

ANNUAL REPORT OF THE ETHICS COMMITTEE—1958-1959

There were no written requests from any county unit for even an opinion from the entire Committee. Two very minor items were handled satisfactorily by phone.

This speaks very well for the general behavior of the Michigan State Medical Society members and would seem to reflect credit too on the State Public Relations Committee's program.

A definition of the word "clinic" that would either satisfy or startle the medical world has yet to be found and will not be offered for approval or adverse criticism until the Ethics Committee itself is satisfied with it. We are still searching and may have it ready for September.

Respectfully submitted,

H. W. Porter, M.D., *Chairman*
W. L. Harrigan, M.D., *Vice Chairman*
F. M. Doyle, M.D.
R. J. Hubbell, M.D.
F. H. Lindenfeld, M.D.
F. E. Ludwig, M.D.
J. D. Miller, M.D.
E. A. Oakes, M.D.
E. A. Osius, M.D.
A. H. Price, M.D.
P. K. Stevens, M.D.
W. F. Strong, M.D.
C. E. Umphrey, M.D.

ANNUAL REPORT OF COMMITTEE ON DIABETES—1958-1959

The Committee had one meeting during the year at which time it discussed, in general, the purposes of The Committee, the previous activities of both the Michigan State Medical Society Committee on Diabetes and the Michigan Diabetes Association.

After this discussion it was concluded that the Michigan Diabetes Association working in close co-operation with the American Diabetes Association should continue their activity in the field of diabetes detection and that this committee shall render them all the possible aid it can both in their present program and continuing the program into other county societies. It also concluded that more definite efforts in the field of education should be added to the detection program. The Committee believes that these additional efforts should be aimed at instructing the public in the importance of early discovery and treatment of the disease and this can be best accomplished by consultation with the family physician. This should be done by the use of such media as radio, newspaper and television, as well as talks to groups, such as, church organizations, school groups, luncheon clubs and social gatherings.

The Committee also agreed that a more definite program of educating the physician should be started, aimed at obtaining a greater number of blood and urine tests done in physicians' offices for the purpose of detecting early diabetes. These educational programs should also contain facts about the misuse of the oral hypoglycemic agents.

Respectfully submitted,

Wm. M. LeFevre, M.D., *Chairman*
John A. Cowan, M.D.
J. B. Rowe, M.D.
G. W. Slagle, M.D.
Bert Van Ark, M.D.
K. K. Vining, Jr., M.D.
H. L. Woodburne, M.D.

ANNUAL REPORT OF THE SCIENTIFIC RADIO COMMITTEE—1958-1959

During the year 1958-1959 forty programs were prepared and tape recorded for lay education throughout the state of Michigan. These programs went out over the following stations at weekly intervals: WAGN—Menominee; WBRN—Big Rapids; WKAR—East Lansing; WDET—Detroit; WCAR—Detroit; WLDM—Detroit; WMDN—Midland; WWBC—Bay City; WPAG—Ann Arbor; WELL—Battle Creek; WBCK—Battle Creek; WBFC—Fremont; WDBC—Escanaba; WIBM—Jackson; WOUM—University of Michigan; WTAC—Flint; WHAK—Rogers City; and WOAP—Owosso.

The eighteen stations carrying the program this year compare favorably with the fourteen stations over which these programs were distributed during the year 1957-58.

1. *Distribution and Advertising.*—Under the direction of Mr. Edwin Burrows of the University of Michigan Broadcasting System, brochures on "Prescription for Health" were sent to the various radio stations in the state. The committee continues to make its plea to the members of the State Medical Society located in communities where the programs are not being distributed to make every effort to get their local broadcasting stations interested in these programs.

2. *Programming.*—The programming for the current year was altered from the previous years. About one-half of the programs were on single topics, and the other half were divided fairly equally among series of topics on the same subjects. For example, the series on juvenile delinquency provided five programs involving not only the medical profession, but also representatives from the courts, social service, and other disciplines involved in the problem of juvenile delinquency. A three-program series relating to ear, nose, and throat problems was provided by Dr. John E. Magielski. An additional series of four programs was devoted to the area of the growing accident problem, and another series related to the problems of mental health under the direction of Dr. H. Waldo Bird.

According to Mr. Burrows, there has been greater listener response to the programs this year. He has a standing request from forty-three individuals to receive copies of the typewritten papers that are presented. In addition, each week there are approximately twelve to fifteen other requests for these papers on specific programs. The largest request for the typewritten paper was made on the talk given by Dr. Richard Bates of Lansing on January 30, 1959, "How to Have Your

Coronary." There were more than 100 requests for this paper.

The subject material and dates of the program given this year are:

Date	*No.*	*Subject*	*Speaker*
10- 3-58	1	Osteoarthritis	Charles Denko, M.D.
10-10-58	2	Pre-school Physical Examination	R. M. Heavenrich, M.D.
10-17-58	3	Polio Immunization	Gordon Brown, M.D.
10-24-58	4	Immunizations	Ernest Watson, M.D.
10-31-58	5	Asian Flu	A. V. Hennessy, M.D.
11- 7-58	6	Dangers of Radiation	Howard B. Latourette, M.D.
11-14-58	7	Foot Problems in Children	Robert Bailey, M.D.
11-21-58	8	Problems in Adoption	Ernest H. Watson, M.D. Bruce D. Graham, M.D.
11-28-58	9	Some Things to do in Event of Disaster	C. Thomas Flotte, M.D.
12- 5-58	10	Staphylococcal Infections in Hospitals	Harry T. Towsley, M.D. A. Burgess Vial, M.D.
12-12-58	11	How are Doctors Reducing Infant Mortality	Samuel J. Behrman, M.D.
12-19-58	12	How are Doctors Reducing Infant Mortality	George Morley, M.D. Edwin L. Marcus, M.D.
12-26-58	13	Problems in Juvenile Delinquency	Stuart Finch, M.D., et al
1- 2-59	14	Problems in Juvenile Delinquency	Stuart Finch, M.D., et al
1- 9-59	15	Problems in Juvenile Delinquency	Stuart Finch, M.D., et al
1-16-59	16	Problems in Juvenile Delinquency	Stuart Finch, M.D., et al
1-23-59	17	Problems in Juvenile Delinquency	Stuart Finch, M.D., et al
1-30-59	18	"How to Have Your Coronary"	Richard Bates, M.D.
2- 6-59	19	Non-Insulin Management of Diabetes	Jerome W. Conn, M.D.
2-13-59	20	What Causes Goiter?	John G. Floyd, Jr., M.D.
2-20-59	21	Problems in Heart Disease	Park W. Willis, III. M.D.
2-27-59	22	Ear-Nose-Throat Problems	John E. Magielski, M.D., et al
3- 6-59	23	Ear-Nose-Throat Problems	John E. Magielski, M.D., et al
3-13-59	24	Ear-Nose-Throat Problems	John E. Magielski, M.D., et al
3-20-59	25	When Do You Need Glasses?	John W. Henderson, M.D.
3-27-59	26	When Do You Need Glasses?	John W. Henderson, M.D.
4- 3-59	27	The Growing Accident Problem	Seward E. Miller, M.D. George Lowrey, M.D. C. Thomas Flotte, M.D. Mr. Fletcher Platte
4-10-59	28	The Growing Accident Problem	Mr. Fletcher Platte
4-17-59	29	The Growing Accident Problem	Mr. Fletcher Platte
4-24-59	30	The Growing Accident Problem	Mr. Fletcher Platte
5- 1-59	31	Problems in Mental Health	Waldo Bird, M.D., et al
5- 8-59	32	Problems in Mental Health	Waldo Bird, M.D., et al
5-15-59	33	Problems in Mental Health	Waldo Bird, M.D., et al
5-22-59	34	Problems in Mental Health	Waldo Bird, M.D., et al
5-29-59	35	Problems in Mental Health	Waldo Bird, M.D., et al
6- 5-59	36	Trends in Medical Education	Robert Lovell, M D.
6-12-59	37	Efforts in Cancer Research	H. B. Latourette, M.D.
6-19-59	38	*General Problems of Geriatrics	Frederick C. Swartz, M.D.
6-26-59	39	The Need for Routine Gynecological Examinations in Women	Samuel J. Behrman, M.D., et al
7- 3-59	40	The Need for Routine Gynecological Examinations in Women	Samuel J. Behrman, M.D., et al

Your committee would like to again re-emphasize to the members of the State Medical Society that tape recordings on all of these talks are available through the Public Relations office of the State Medical Society. We would further like to re-emphasize that all physicians who are subscribers to the Audio Digest could use these tape recordings for source materials for talks which they may be called upon to give to the local organizations.

This committee has been very fortunate to have the services of Dr. Richard Field, Instructor in the Department of Internal Medicine of the University Hospital, to serve as liaison between the speakers for the Scientific Radio Programs and the radio station WUOM of the University of Michigan. Dr. Field, who is leaving us this June, has done an admirable job in co-ordinating these talks and getting them on the air on the scheduled time. Your committee is deeply indebted to him for these services.

It is anticipated that the budget for 1959-60 will be approximately equal to the budget submitted for the year 1958-59, or $1,500.

Respectfully submitted,

HARRY A. TOWSLEY, M.D., *Chairman*
C. B. BEEMAN, M.D.
S. J. BEHRMAN, M.D.
J. H. BUELL, M.D.
C. G. CALLANDER, M.D.
R. D. FEEHELEY, M.D.
C. T. FLOTTE, M.D.
G. H. SCOTT, Ph.D.
J. M. SHELDON, M.D.
R. W. TEED, M.D.
K. W. TOOTHAKER, M.D.

ANNUAL REPORT COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS—1958-1959

Two meetings of the Committee were held this year. Ambulance safety legislation was thoroughly discussed in relation to the Committee's own studies of last year and the resolution on the subject passed by the 1958 House of Delegates. Dr. S. N. Lyttle appeared on behalf of the Committee at Legislative hearings considering an ambulance safety bill.

The importance of the AMA booklet "Are You Fit to Drive?" for members of the public was emphasized, and County Societies were urged to make use of it as widely as possible. Dr. J. H. Ganschow of the Committee arranged for the Secretary of State's office to secure large numbers of this booklet which has been reprinted by General Motors.

The Committee strongly endorsed the AMA's "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle," and recommended that this be made available to the M.D.'s of Michigan either through purchase of reprints, or through a reprinting of the Guide in THE JOURNAL of the Michigan State Medical Society.

The Committee recommended that high school students be given a minimum visual test (Snellen Test) by the schools before being enrolled in a student drivers training course. The State Department of Public Instruction has promised to recommend this to all schools offering driver training.

The Committee recommended that the MSMS develop a publicity program around the AMA booklet, "Are You Fit to Drive?", and each member of the Committee has prepared a brief article to be so used.

The Committee recommended that the value of safety belts be publicized by MSMS, in conjunction with the current publicity campaign of the AMA, National Safety Council and Department of Health, Education and Welfare.

(Continued on Page 1162)

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

Q FEVER FOUND IN MICHIGAN

Preliminary screening tests of milk samples for Q Fever show that reacting herds are present in Allegan, Barry, Calhoun, Eaton, Kalamazoo, Macomb, St. Joseph, and Van Buren Counties and indicate that Q Fever is present in from 10 to 15 per cent of the dairy herds. Screening is now in progress in the upper peninsula with tests being made by the Chippewa-Luce-Mackinac Health Department.

The Ohio Department of Health in checking the Toledo Milk Shed found that there are reacting herds in Hillsdale, Jackson, Lenawee, Monroe and Washtenaw Counties. There is no doubt that Q Fever organisms are widely disseminated in Michigan today.

Q Fever is an acute febrile illness caused by Coxiella burneti (a rickettsial disease), characterized by sudden onset, malaise, headache, anorexia and weakness. Rickettsemia occurs during the febrile phase, and interstitial pneumonitis generally develops. There is no rash.

More than 1,000 cases were reported in the Mediterranean theatre among Allied troops during 1944 and 1945.

The incubation period is from fourteen to twenty-six days, with a mean period of nineteen days. The onset of the disease is generally sudden with headache, myalgia, fever, chilly sensations and loss of appetite. Upper gastro-intestinal symptoms or upper respiratory symptoms are not conspicuous.

During the first few days physical signs are generally limited to fever, ranging from 101° to 104°F. The febrile period lasts from one to ten or more days. Temperature curves are of the swinging type. Symptoms noted at the onset continue while the temperature remains elevated with increasing anorexia often accompanied by nausea. Headache is severe.

On the fifth or sixth day, a mild dry cough develops in most cases, and many complain of pain in the chest. At this time there may be some crepitant rales and slight diminution in resonance. These signs are not persistent. X-ray evidence of pulmonary involvement may be found on practically all patients. The findings usually are indistinguishable from primary atypical pneumonia. The X-ray findings do not develop until four or five days following onset, and usually involve only a portion of one lobe, presenting a generally homogeneous, ground glass appearance. The x-ray changes persist beyond the termination of the febrile period.

Complications are rare. Fever lasting for longer than four weeks occurs more often in persons over forty years of age. Clinical icterus may appear in patients with protracted severe illness.

The usual clinical laboratory tests are not very helpful.

The etiological agent is a member of the rickettsial group (Coxiella burneti).

Q Fever in man is probably most often contracted by the inhalation of infected dust or the drinking of milk containing the organisms. The disease may be transmitted from animal to animal by ticks.

A cooperative research project conducted by the University of California, the Milk Industry Foundation, the Dairy Industries Supply Association, and the Public Health Service showed that when large numbers of Q Fever organisms are present, some may survive pasteurization at 143°F for thirty minutes. The findings indicate that pasteurization of milk at 145°F. for thirty minutes by the vat method or at 161°F. for fifteen seconds by the high-temperature short-time method is adequate to kill the Q Fever organism.

Therefore, the department has recommended amendments to the state dairy laws to require higher pasteurization temperatures. In the meantime, it has recommended that all local health agencies encourage pasteurization plants to pasteurize milk at a temperature not lower than 145°F. for not less than 30 minutes when the vat method is used and a temperature of not lower than 161°F. for 15 seconds when the high-temperature short-time method is used.

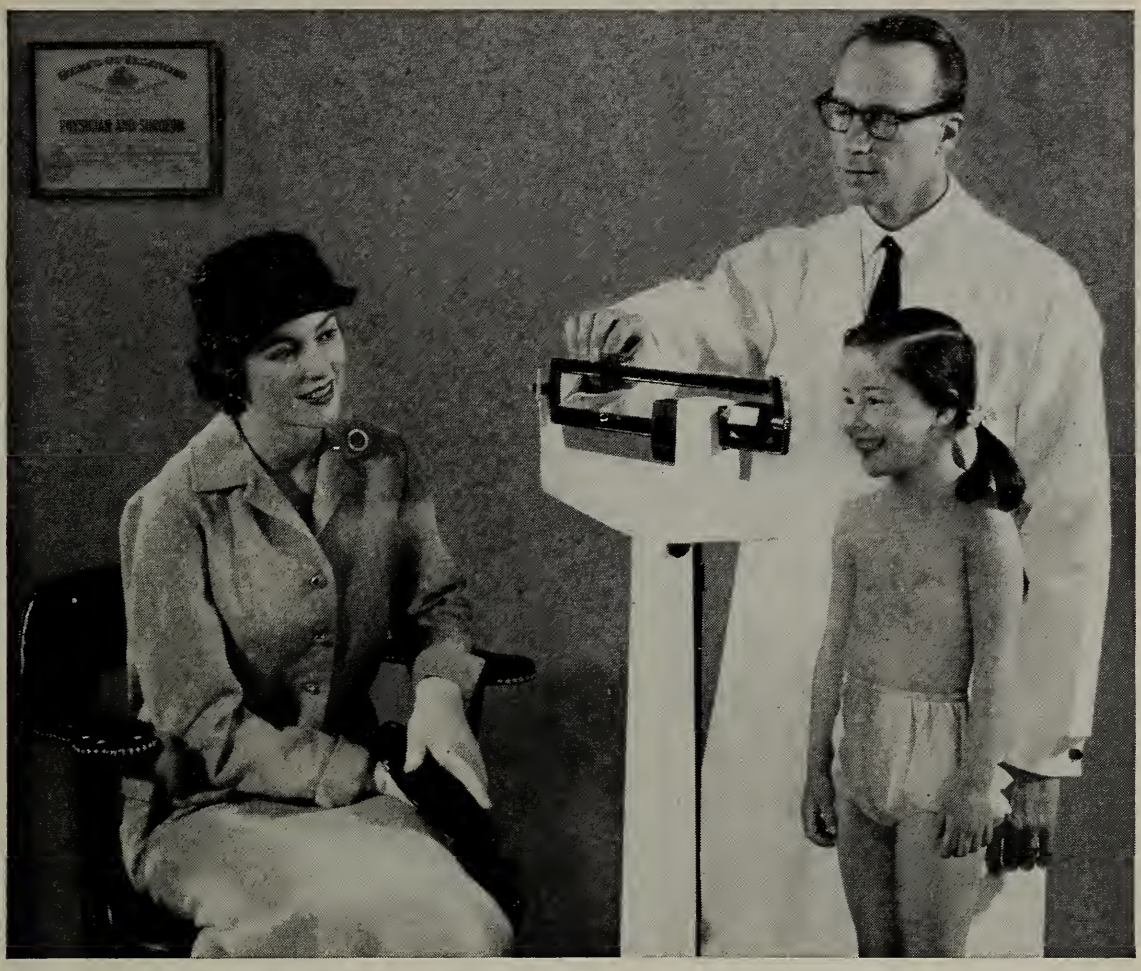
ANNUAL REPORT COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS —1958-1959

(Continued from Page 1161)

The Committee met with Mr. James M. Hare, Secretary of State to discuss the difficulties encountered by his office in getting an accurate medical evaluation of "accident-repeat" drivers. The Committee recommended the principle of setting up advisory boards of physicians on a county or regional basis to assist the Secretary of State's office in the re-examination of questionably unfit drivers.

The State Department of Health referred a problem brought to its attention by the Secretary of State which proposed that "uncorrectable eye diseases be considered in the category of reportable diseases" for the purpose of limiting driving licensure of persons with such eye conditions. The Committee recommended that such visual defects *not* be classified as reportable.

Respectfully submitted,
J. R. Rodger, M.D., *Chairman*
G. H. Agate, M.D.
R. T. Blackhurst, M.D.
H. E. DePree, M.D.
J. H. Ganschow, M.D.
C. M. Hansen, M.D.
W. N. Herbert, M.D.
A. Z. Howard, M.D.
Sidney N. Lyttle, M.D.
W. D. Peterson, M.D.
C. W. Sellers, M.D.
H. J. Meier, M.D.



Underweight Children Gain and Retain Weight with Nilevar®

One of the most convincing evidences of the anabolic activity of Nilevar, brand of norethandrolone, has been its ability to improve appetite and increase weight in poorly nourished, underweight children.

A highly important feature of the weight gain thus produced is that it is not ordinarily manifested by deposition of fat but as muscle tissue resulting from the protein anabolism induced by Nilevar.

Anorexia and "Weight Lag" Study—Brown, Libo and Nussbaum have reported* consistent and definite increases in rate of weight gain in eighty-six patients, ranging in age from 7 weeks to 15½ years. This beneficial action of Nilevar was observed in the patients with organic and traumatic disorders as well as those whose only complaints were poor appetite and/or persistent failure to gain weight.

In this study, the weight gained was not lost after discontinuance of Nilevar therapy although many patients did not continue the sharp gains effected by the drug.

The authors are of the opinion that Nilevar is a highly useful anabolic agent for influencing weight gain in underweight children.

When Nilevar is administered to children a dose of 0.25 mg. per pound of body weight is recommended and continuous dosage for more than three months is not recommended.

Nilevar is supplied as tablets of 10 mg., drops of 0.25 mg. per drop and ampuls of 25 mg. in 1 cc. of sesame oil. Further dosage information in Searle Reference Manual No. 4.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

---

*Brown, S. S.; Libo, H. W., and Nussboum, A. H.: Norethondrolone in the Successful Manogement of Anorexio ond "Weight Log" in Children, Scientific Exhibit presented ot the Annuol Meeting of the Americon Acodemy of Pediotrics, Chicago, Oct. 20-23, 1958.

Say you saw it in the Journal of the Michigan State Medical Society

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

Medical Arts Supply Company

311 State Street S.E. Phone GL 9-9413
Grand Rapids 3, Mich.

Medical Arts Pharmacy

20-24 Sheldon S.E. Phone GL 6-9661
Grand Rapids 2, Mich.

In Memoriam

DAVID H. BURLEY, M.D., ninety-six, Almont physician, died April 20, 1959. Doctor Burley was born October 16, 1863, on a farm near Thedford, Ontario, where he attended grade school and worked in a saw mill and salt works and a drug store.

After studying pharmacy at the University of Toronto for one year, he was able to come to Michigan and pass the state board examination in pharmacy. He then enrolled at the Detroit College of Medicine, now Wayne State University. After graduation, on June 21, 1893, Doctor Burley set up his practice in Almont which had a duration of sixty-six years.

Active in the Michigan State Medical Society, records show he attended forty-five consecutive meetings of the society.

In 1953, Almont community honored Doctor Burley by celebrating Doctor Burley week in honor of his sixty years of service to that community.

In addition to membership in the Congregational church, Doctor Burley was a life member of Almont Lodge No. 51, F & A M, Almont Chapter R.A.M., Commandery No. 6, life member of Almont Oddfellow Lodge No. 181 and the Almont Rebeccah Lodge.

ROBERT H. CLIFFORD, M.D., forty-three, chief of plastic surgery at Henry Ford Hospital, Detroit, died May 15, 1959 in Boston while attending a meeting of the American Association of Plastic Surgeons.

A graduate of the University of Maryland Medical School in 1940, he received his training in plastic surgery at Union Memorial Hospital, Baltimore and Columbia Presbyterian Medical Center, New York.

Doctor Clifford served as a battalion surgeon of an airborne division in the North African campaign from 1942 to 1944. Since 1951 he had been senior plastic surgeon at Ford Hospital.

He was certified by the American Board of Plastic Surgeons, was a fellow of the American College of Surgeons and a member of the American Society of Plastic and Reconstructive Surgery.

A sports-car enthusiast, he was a member of the Sports Car Club of Michigan.

SOUTHARD T. FLYNN, M.D., sixty-one, Flint urologist, died April 21, 1959.

A native of San Francisco, Doctor Flynn was a graduate of the University of California and the University of Michigan Medical School. During World War II, he was a lieutenant colonel with the Army Medical Corps.

He was a member of the American Urological Association, a fellow of the American College of Surgeons and at the time of his death was president of the Flint Academy of Surgery.

Doctor Flynn began his practice in Flint in 1927 and once served as Chief of Staff at McLaren Hospital, Flint.

(Continued on Page 1166)

in HAY FEVER *Family Physicians use*

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

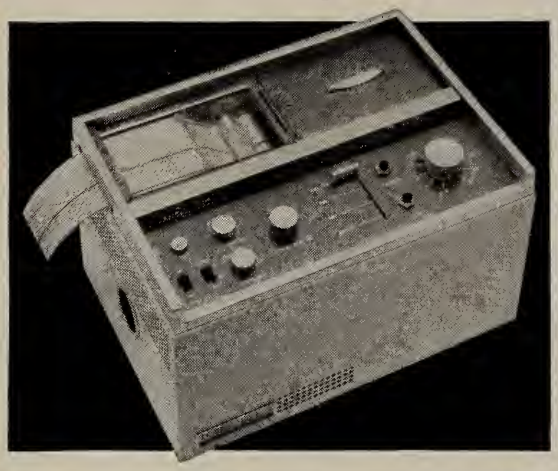
FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

BARRY
since 1928



Doctor, you can take it with you!



THE BURDICK EK-III **DUAL-SPEED ELECTROCARDIOGRAPH**

- 26½ pounds light, including all accessories and carrying case! Ideal for office or bedside use
- 25 or 50 mm. speed — an accurate record for an accurate diagnosis
- frequency response greatly in excess of minimum A.M.A. standards
- top-loading paper drive eliminates tedious paper-threading adjustments

Burdick

THE BURDICK CORPORATION
MILTON, WISCONSIN
Branch Offices: New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Michigan

SOUTHARD T. FLYNN, M.D.

(Continued from Page 1164)

He also once headed the department of urology at Hurley Hospital, Flint.

He was a member of Flint Presbyterian Church, Flint Golf Club, Kiwanis Club and Elks Club.

CHARLES N. GIERING, M.D., thirty-six, Midland anesthesiologist, died April 20, 1959.

Born in Youngstown, Ohio, he served with the Navy during World War II from July 1943 to January 1946, when he resigned his Navy ensign commission to enter the V12 program.

Doctor Giering was a member of the American Society of Anesthesiologists and a fellow of the American College of Anesthesiology.

JOSEPH C. GROSJEAN, M.D., eighty-five, Bay City physician, died May 14, 1959. Doctor Grosjean practiced medicine for sixty-two years, and for eighteen years had been medical director of Bay County Hospital.

HUGH R. MEYER, M.D., sixty-eight, Lansing physician, died May 5, 1959.

A graduate of the University of Michigan in 1917, he practiced medicine in Potterville for twelve years before moving to Lansing where he practiced for thirty years before retiring in 1945.

Doctor Meyer was a member of Central Methodist Church, Capital Lodge No. 66 F & A M., Capital Chapter No. 9, R.A.M., and Lansing Commandery No. 25, Knights Templar.

ALBERT G. WALTERS, M.D., sixty, Detroit physician, died May 10, 1959.

A native of Phelps, New York, he was a graduate of the University of Toronto Medical School.

At the time of Doctor Walters' death, he was a diagnostician for the Detroit Health Department and a resident physician at Herman Kiefer Hospital. He at one time had been in charge of the hospital at the Ford Motor Co. plant in Pequaming, Michigan.

In Lansing

HOTEL OLDS

Fireproof

400 ROOMS

re-evaluating tranquilizers?

READ WHAT CLINICIANS ARE NOW SAYING ABOUT ATARAX®

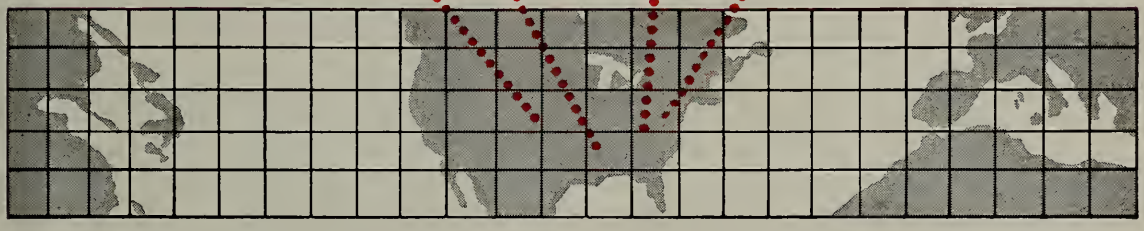
(brand of hydroxyzine)

IN GERIATRICS
"ability to decide correctly has increased, while the illogical response to anxiety has diminished."[1]

IN WORKING ADULTS
"especially well suited for ambulatory patients who must work, drive a car, or operate machinery."[3]

IN GENERAL
ATARAX is "effective in controlling tension and anxiety.... Its safety makes it an excellent drug for out patient use in office practice."[4]

IN PEDIATRICS
"ATARAX appeared to reduce anxiety and restlessness, improve sleep patterns and make the child more amenable to the development of new patterns of behavior...."[2]



INVESTIGATORS AGREE ON OPTIMAL ATARAX DOSAGES

For childhood behavior disorders	10 mg. tablets Syrup	3-6 years, one tablet t.i.d. over 6 years, two tablets t.i.d. 3-6 years, one tsp. t.i.d. over 6 years, two tsp. t.i.d.
For adult tension and anxiety	25 mg. tablets Syrup	one tablet q.i.d. one tbsp. q.i.d.
For severe emotional disturbances	100 mg. tablets	one tablet t.i.d.
For adult psychiatric and emotional emergencies	Parenteral Solution	25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Smigel, J. O., et al.: J. Am. Ger. Soc., in press. 2. Freedman, A. M.: Pediat. Clin. North America 5:573 (Aug.) 1958. 3. Ayd, F. J., Jr.: New York J. Med. 57:1742 (May 15) 1957. 4. Menger, H. C.: New York J. Med. 58:1684 (May 15) 1958. 5. Coirault, M., et al.: Presse méd. 64:2239 (Dec. 26) 1956. 6. Bayart, J.: Presented at the International Congress of Pediatrics, Copenhagen, Denmark, July 22-27, 1956.

ATARAX®

ROERIG Rx

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Harold F. Schuknecht, M.D., John A. Churchill, M.D., and **Rosemary Doran, B.S.,** Detroit, are the authors of an article entitled "The Localization of Acetylcholinesterase in the Cochlea," published in AMA *Archives of Otolaryngology,* May, 1959.

Harold F. Schuknecht, M.D., Detroit, is the author of an article entitled "New Instrument—Roller Knives," published in AMA *Archives of Otolaryngology,* May, 1959.

G. W. Lechner, M.D. and **P. J. Connolly, M.D.,** Detroit, are the authors of an article entitled "Three Benign Tumors of the Jejunum," published in *Harper Hospital Bulletin,* March-April, 1959.

Napoleon C. Imperio, M.D., and **L. Byron Ashley, M.D.,** Detroit, are the authors of an article entitled "Aneurysm of the Renal Artery," published in *Harper Hospital Bulletin,* March-April, 1959.

George M. Laning, M.D., Detroit, is the author of an article entitled "Harper Hospital Profiles II, Dr. Russell Rowland 1874-1938," published in *Harper Hospital Bulletin,* March-April, 1959.

Clifford D. Benson, M.D. and **Charles R. Reiners, M.D.,** Detroit, are the authors of an article entitled "Asymptomatic Abdominal Masses in Infants and Children," read at the 66th annual meeting of the Western Surgical Association, Rochester, Minnesota, November 21, 1958, and published in AMA *Archives of Surgery,* May, 1959.

Melvin A. Block, M.D., J. Martin Miller, M.D., and **Brock E. Brush, M.D.,** Detroit, are the authors of an article entitled "Place of Radical Neck Surgery in Thyroid Carcinoma," read at the 66th annual meeting of the Western Surgical Association, November 20, 1958, Rochester, Minnesota, and published in AMA *Archives of Surgery,* May, 1959.

George E. Block, M.D., M.S. (Surg.), **Jack D. McCarthy, M.D.;** and **A. Burgess Vial, M.D.,** Ann Arbor, are the authors of an article entitled "Adrenal-Corticoid Depression of Adrenal Estrogens in Cases of Mammary Cancer," read at the 66th annual meeting of the Western Surgical Association, Rochester, Minnesota, November 20, 1958, and published in AMA *Archives of Surgery,* May, 1959.

Wilbur Hilst, M.D., Charles Koucky, M.D., Louis Kaufman, M.D. and **Gerald S. Wilson, M.D.,** Detroit, are the authors of an article entitled "Pancreatoduodenectomy for Periampullary Carcinoma—An Evaluation of Technique, Mortality and Results," read at the 66th annual meeting of the Western Surgical Association, Rochester, Minnesota, November 21, 1958, and published in AMA *Archives of Surgery,* May, 1959.

R. T. Blackhurst, M.D., Midland, is the author of an article entitled "Amblyopia: A Preschool Problem," published in *Clinical Medicine,* May, 1959.

John W. Keyes, M.D., Detroit, is the author of an article entitled "Chlorothiazide—The Oral Non-mercarial Diuretic," published in *Clinical Medicine,* May, 1959.

Edward A. Carr Jr., M.D., Ann Arbor, is the author of an article entitled "The Treatment of Thyroid Diseases," published in *GP,* May, 1959.

M. Wyatt Haisten, M.D. and **Jack S. Guyton, M.D.,** Detroit, are the authors of an article entitled "Iridencleisis, Technique and Results in Ninety-Five Consecutive Operations," presented at the 17th clinical meeting of the Wilmer Residents Association, Baltimore, March 28, 1958, and published in AMA *Archives of Ophthalmology,* May, 1959.

J. Reimer Wolter, M.D. and **Leopold Liss, M.D.,** Ann Arbor, are the authors of an article entitled "Hyaline Bodies of the Human Optic Nerve," published in the AMA *Archives of Ophthalmology,* May, 1959.

George H. Lowrey, M.D., Ann Arbor, is the author of an article entitled "The Experiences of the University of Michigan Poison Information and Therapy Center in 1958," published in *The University of Michigan Medical Bulletin,* March, 1959.

Kenneth R. Magee, M.D., and **Russell N. De Jong, M.D.,** Ann Arbor, are the authors of an article entitled "An Evaluation of Dextro Propoxyphene Hydrochloride in the Treatment of Headache," published in the *University of Michigan Medical Bulletin,* March, 1959.

F. J. Holt, M.D. and **Donald R. Korst, M.D.,** Ann Arbor, are the authors of an article entitled "Transient Hemolytic Anemia Associated with Liver Disease," published in the *University of Michigan Medical Bulletin,* March, 1959.

Austin E. Lamberts, M.D., Grand Rapids, is the author of an article entitled "Tic Douloureux," published in THE JOURNAL of the Michigan State Medical Society, January, 1959, and condensed in *Current Medical Digest,* May, 1959.

George E. Block, M.D., M.S. (Surg.), **A. Burgess Vial, M.D., F.A.C.S., Jack D. McCarthy, M.D., Charles W. Porter, A.M.,** and **Frederick A. Coller, M.D., F.A.C.S.,**

(Continued on Page 1170)

Prompt relief of pain while controlling inflammation

in:
Neuritis, Neuralgia,
Herpes Zoster, Bursitis,
Rheumatoid Arthritis



Rheumatoid arthritis —generalized.

After treatment. Complete subsidence of arthritic and neuromuscular symptoms.

WILCORT promptly relieves pain, spasm and discomfort accompanying arthritis, neuritis and other skeletal neuromuscular disorders while exerting anti-inflammatory, antineuritic actions.

WILCORT combines the anti-inflammatory action of ACTH with the dependable anabolic effects of vitamin B_{12}. It, therefore, relieves the neuritic pain, regardless of the etiology, improves the appetite, the patient feels stronger, has more energy, and the muscle and arthritic pains become less severe.[1]

WILCORT

Each cc. contains: 40 U.S.P. units corticotropin, 1000 mcg. vitamin B_{12} in gelatin menstruum to prolong therapeutic activity.
Supplied: In 5 cc. multiple dose vials for intramuscular or subcutaneous injection.

1. Natenshon, A. L.: Wisconsin Med. J. 53: 223, 1954.

WILSON Laboratories

THE WILSON LABORATORIES. Pharmaceutical Division of Wilson & Co., Inc., 4221 S. Western Boulevard, Chicago 9, Illinois

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 1168)

Ann Arbor, are the authors of an article entitled "Adrenalectomy in Advanced Mammary Cancer," published in *Surgery, Gynecology and Obstetrics,* June, 1959.

Peter A. Martin, M.D., Detroit, is the author of an article entitled "One Type of Earliest Memory," read at the Brief Communication Section at the midwinter meeting of the American Psychoanalytic Association in New York City, December, 1957 and published in *The Psychoanalytic Quarterly,* XXVIII:73-77, 1959.

Peter A. Martin, M.D., Detroit, is the author of an article entitled "The Cockroach as an Identification; With Reference to Kalfa's Metamorphosis," read at the midwinter meeting of The American Psychoanalytic Association in New York, December, 1956, and published in *The American Imago,* 16: Spring, 1959.

* * *

Winner of one of the four American Medical Association awards at the National Science Fair in Hartford, Connecticut, May 6-9, 1959, was a Michigan girl, Miss



Jo Ann Charters, seventeen, a senior at St. James High School in Bay City.

Her honorable mention citation, awarded for her exhibit on "The Effect of Colchicine and Gibberellin on the Ascites Tumor," was presented by Dr. Stanley P. Reimann, Philadelphia, chairman of the AMA Council on Scientific Assembly, who headed the special AMA judging group at the Fair. The awards were made at an AMA-hosted banquet which honored the 1,000 students, counselors, and teachers attending the annual competition. Louis M. Orr, M.D., AMA president-elect, was the featured speaker.

Jo Ann's exhibit was chosen from a field of finalists from forty-eight states, the District of Columbia, Puerto Rico, Canada, Germany, and Japan. AMA awards are the culmination of local and regional fairs, many of which are sponsored or assisted by state and county medical societies in order to attract talented high school students into the study of medicine.

* * *

The Sixth Pan American Congress on Ophthalmology will be held in Caracas, Venezuela, from January 31 to February 7, 1960. All members of the Pan American

(Continued on Page 1172)

"It is concluded that the addition of buffering agents to acetylsalicylic acid in the concentrations used serves no clinically detectable useful purpose."[1]

[1]Sadove, Max S. and Schwartz, Lester: An Evaluation of Buffered Versus Nonbuffered Acetylsalicylic Acid, Postgraduate Medicine; 24:183, August, 1958.

Nonbuffered Material Used—Bayer® Aspirin.

(Continued from Page 1170)

Association of Ophthalmology are invited to attend. Ophthalmologists interested either in membership or in attendance are requested to contact J. Wesley McKinney, M.D., Suite 921, Exchange Building, Memphis, Tennessee.

* * *

The United States Public Health Service is stressing small pox vaccination as a precautionary measure. This defense has been neglected quite generally. The present stress was stimulated because of the German outbreak of the disease set off by a physician returning from a vacation in India.

* * *

"Muscular Weakness and Atrophy in its Electromyographic Aspects" was the subject of an address presented by Max Karl Newman, M.D., Detroit, at a meeting of the Michigan Electroencephalographic Society, held at Caro State Hospital on May 15, 1959.

* * *

The Pan-Pacific Surgical Association will hold its Eighth Congress, September 27 to October 5, 1960, in Honolulu, Hawaii. The Pan-Pacific holds a scientific meeting in Hawaii every three years and at the last Congress held in 1957, more than 1200 surgeons attended to hear 195 presentations by medical men. An extensive social program is planned in conjunction with the Congress. For further information, write Pan-Pacific Surgical Association, Travel Headquarters, 36 South Wabash Ave., Chicago 3, Illinois.

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of applications is August 1, 1959. No applications can be accepted after that date.

Candidates are requested to write to the office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio for a current Bulletin if they have not done so, in order that they might be well informed as to the present requirements. Application fee ($35.00), photographs, and lists of hospital admissions must accompany all applications.

* * *

George J. Curry, M.D., Flint, has been appointed a member of the Editorial Board of the *American Journal of Surgery* and is to be Guest Editor for the October, 1959, issue which will be devoted to a symposium on "The Medical Aspects of Traffic Safety and Related Injuries."

* * *

Internal Revenue Service has defined what sickness is when it strikes a pregnant wage earner, such definition to determine whether sums received constitute sick pay and are thus excludable from income. Absence from work in time of pregnancy is *not* sickness *per se,* IRS reaffirms. For tax purposes, it was held that "sickness" begins with onset of labor and ends when the woman's

(Continued on Page 1174)

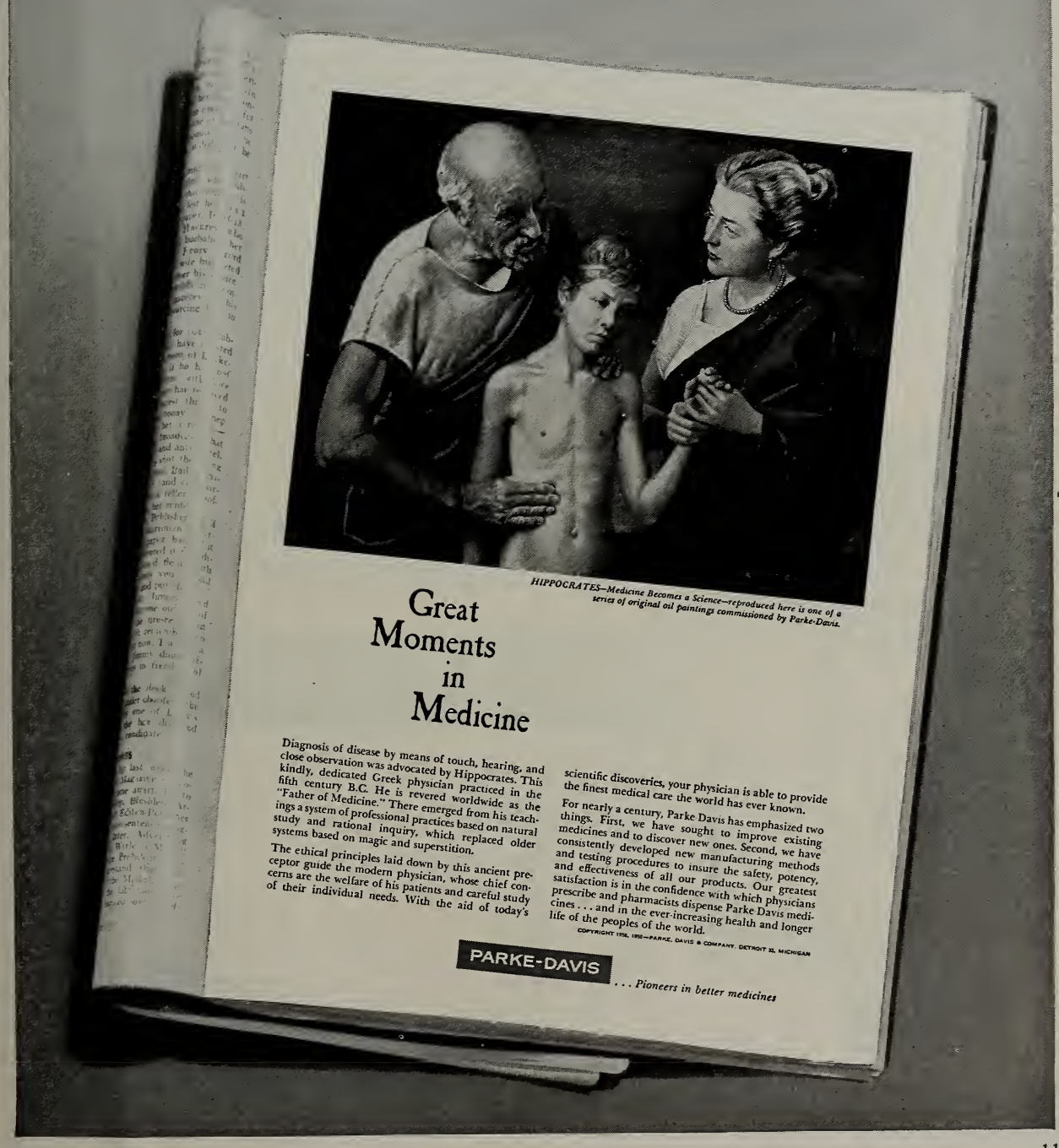
Gastralme

the creamy antacid

WORKS IN SECONDS
PROTECTS FOR HOURS

MEYER & COMPANY
DETROIT 24, MICHIGAN

Through the centuries, Medicine has measured its most significant advances in terms of human benefits. Parke-Davis, through its "Great Moments in Medicine" series, continues to remind millions of people throughout the world of Medicine's constant efforts to promote the welfare of mankind . . . from the very outset of recorded history to the wonderful realities of today. The advertisement you see here will be the fifth in this striking institutional series, and will soon appear in LIFE, SATURDAY EVENING POST, TIME, READER'S DIGEST and TODAY'S HEALTH.



HIPPOCRATES—Medicine Becomes a Science—reproduced here is one of a series of original oil paintings commissioned by Parke-Davis.

Great Moments in Medicine

Diagnosis of disease by means of touch, hearing, and close observation was advocated by Hippocrates. This kindly, dedicated Greek physician practiced in the fifth century B.C. He is revered worldwide as the "Father of Medicine." There emerged from his teachings a system of professional practices based on natural study and rational inquiry, which replaced older systems based on magic and superstition.

The ethical principles laid down by this ancient preceptor guide the modern physician, whose chief concerns are the welfare of his patients and careful study of their individual needs. With the aid of today's scientific discoveries, your physician is able to provide the finest medical care the world has ever known.

For nearly a century, Parke Davis has emphasized two things. First, we have sought to improve existing medicines and to discover new ones. Second, we have consistently developed new manufacturing methods and testing procedures to insure the safety, potency, and effectiveness of all our products. Our greatest satisfaction is in the confidence with which physicians prescribe and pharmacists dispense Parke Davis medicines . . . and in the ever-increasing health and longer life of the peoples of the world.

COPYRIGHT 1958, 1959—PARKE, DAVIS & COMPANY, DETROIT 32, MICHIGAN

PARKE-DAVIS . . . *Pioneers in better medicines*

(Continued from Page 1172)

physical incapacity as result of childbirth or miscarriage is terminated.

Otherwise, it is required that a physician certify that the pregnant woman's absence from work is precautionary against miscarriage, in order to gain exclusion of wages from gross income.—WRMS.

* * *

Appointment of Solomon J. Axelrod, M.D., as director of the Bureau of Public Health Economics in The University of Michigan School of Public Health was approved by the Regents May 22, 1959. The appointment is effective July 1, 1959. Prof. Nathan Sinai (Dr. Ph.), currently the director, has requested that he be relieved of the administrative duties so that he may devote more time to teaching, research and writing. Dr. Axelrod has been associate director since 1952.

* * *

Two appointments to the Board of Governors of the Institute of Industrial Health at The University of Michigan were approved by the Regents May 22, 1959. E. Gifford Upjohn, M.D., president of The Upjohn Company of Kalamazoo, was appointed to succeed the late Michael Gorman of Flint. George A. Jacoby, director of personnel relations for General Motors Corporation, was named to succeed Dr. Max Burnell, who has retired as medical director of GMC.

* * *

The University of Michigan Medical School has accepted the 200 students who will form the medical Class of 1963. Ten of those accepted are women.

Assistant Dean Robert G. Lovell, M.D., reported that more than 800 students had applied for the 200 spaces. Michigan has the largest entering class of any medical school in the nation, equaled only by the University of Tennessee.

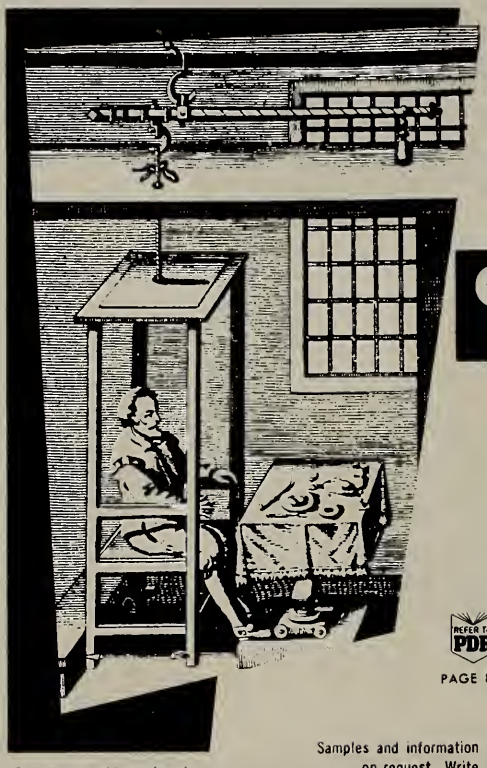
For the first time the University offered freshman five tuition scholarships as an inducement to outstanding students to enter the field of medicine. All five students accepted. Another feature in selecting the Class of 1963 was that preliminary screening of applicants was done by alumni of the medical school. These practicing physicians, scattered throughout the state, had been invited to participate in the difficult selection process.

The size of the medical class is limited by classroom and laboratory resources, and by the availability of instructors and patients. Seventeen additional students have been selected as alternates, in case there are dropouts between now and September.

* * *

Hospital Costs Attacked.—In approving a huge military construction bill, Senate Armed Services Committee denied funds for three Air Force, two Army and one Navy hospital projects. Reason: "The committee does not intend to imply that these hospitals are not needed, but simply that cost estimates appear to be entirely unrealistic." The stricken projects have a total estimated cost of about $17.7 million.—W.R.M.S.

(Continued on Page 1176)



Sanctorius on his steelyord chair in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR

PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN



A Vacation from Hay Fever is a Real Vacation

ANYWHERE – ANYTIME

Just a "poof" of fine **NTZ** *spray brings relief* IN SECONDS, FOR HOURS

NTZ is a potentiated, balanced combination of these well known synergistic compounds:

Neo-Synephrine® HCl, 0.5%
– dependable vasoconstrictor and decongestant

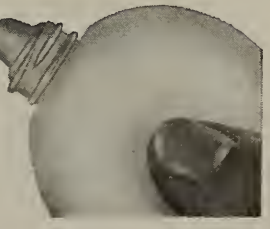
Thenfadil® HCl, 0.1%
– potent topical antihistaminic.

Zephiran® Cl, 1:5000
– antibacterial wetting agent and preservative.

NTZ®

NASAL SPRAY

Supplied in leakproof, pocket size squeeze bottles of 20 cc.



Winthrop LABORATORIES
New York 18, N. Y.

(Continued from Page 1174)

WAYNE MEDICAL ALUMNI ELECT C. I. OWEN, PRESIDENT

An all alumni-faculty scientific program was featured at the 91st Alumni Reunion and Clinic Day of Wayne State University May 13. About 310 alumni and guests attended the dinner dance at the Hotel Fort Shelby. Previous top attendance was 212.



Louis J. Hirschman, M.D., oldest living past-president of Wayne County Medical Society, congratulates Clarence I. Owen, M.D., as the new president of Wayne State University Medical School Alumni Association.

In post-banquet ceremonies, Theodore I. Bergman, M.D., '32, turned over the president's gavel to Clarence I. Owen, M.D., '20. Only the week previous Doctor Owen completed his term as president of the Wayne County Medical Society.

Recipients of the distinguished service citations were John E. Webster, M.D., '35, clinical associate professor of medicine, and Loren W. Shaffer, M.D., professor emeritus of dermatology and syphilology.

Doctor Webster was honored for his outstanding research and writings in neurosurgery and efforts in fund raising for the Medical Library fund and the Wayne County Medical Society building. Dr. Webster was unable to attend because of illness.

Doctor Shaffer was cited for his excellence in teaching through his 32 years with the College of Medicine. His work in developing the Social Hygiene Clinic of Receiving Hospital into national prominence as a treatment center was described.

Four fifty-year graduates of the College of Medicine were given golden anniversary certificates by Osborne A. Brines, M.D., professor and chairman of pathology. Honored were: Henry Cook, M.D., Flint; Alfred A. Wade, M.D., Howe, Ind.; Albert L. French, M.D., Detroit, and Euclide V. Joinville, M.D., of Detroit and Windsor.

A plaque and $50 were given to senior medical student Forrest Arnoldi and sophomore Martin Nosan by Lawrence Pratt, M.D., '35, honorary president of the alumni. The awards are given annually for the student having the highest grades throughout medical school.

Hike in Medical Rates Foreseen.—Steps that can be taken to offset a $100,000 deficit for 1958, including an increase in rates, were outlined at the annual meeting of Windsor Medical Services by Dr. H. Hislop Lees, president. "A deficit of almost $100,000 in one year is, in itself, not too alarming," Dr. Lees observed. "However, the trend is alarming."

The head of the prepaid plan stated that control of utilization, and increasing the rates to participants, were the two approaches open to the directors seeking to change a "financial picture that cannot be tolerated long." "The first approach is better control of utilization and over-servicing. The second is to increase subscriber rates. The present board has already laid the ground work for such an increase," Dr. Lees added. The last change in rates for the plan was in January of 1956.

The cost of servicing one subscriber a month rose to $1.82 in 1957 from $1.61 in 1955 and to $1.88 in 1958, he said. A loss of $97,877 to the general reserve in 1958 is the most serious and most important item in the annual report, Dr. Lees said. For every 1,000 participants, services increased from the rate 414.9 in 1957 to 423.1 in 1958.

The willingness and ability of both individual and group subscribers to pay increased rates must be fully considered, he said. "On the basis of the average enrollment of 200,000 subscribers, the six-cent increase in 1957 would amount to $144,000 during the year." The initial study of increasing the rates has already begun, he said. Enrollment in the plan during the year has been encouraging, Dr. Lees said. Despite high unemployment in the area the group plan increased from 29,503 to 37,377 in 1958 and 2,692, have enrolled in the individual plan started this year. Dr. Lees predicted that in the future a large percentage of the total enrollment would come from individual membership.

Tribute to the directors who have worked with him over the years and a special reference to lay-directors for their advice in business and financial matters was made by Dr. Lees. Elected to the board of directors this year were, Dr. R. J. Tinning of Windsor, Dr. John O'Neill of Chatham and Dr. E. A. Durocher of Windsor, re-elected. A successor to Dr. Lees will be named at the first meeting of the new board.

* * *

Dr. R. R. A. Coombs, British scientist, addressed the members of the Michigan Association of Blood Banks on June 20, following a dinner meeting at 7:30 P.M. Dr. Coombs' lecture, presented at the Veterans Memorial Building in Detroit, was jointly sponsored by the Michigan Association of Blood Banks, Michigan State University's Basic College and Division of Biological Science, and the Division of Laboratories of the Michigan Department of Health. Dr. Coombs is regarded as one of the outstanding contributors to the science of blood banking, and the Coombs test and serum are almost universally used by modern blood banks. Dr. Coombs is a member of the Department of Pathology of Cambridge University, England.

(Continued on Page 1178)



VESPRIN made the difference

SQUIBB TRIFLUPROMAZINE HYDROCHLORIDE

in anxiety and tension states / psychomotor agitation / phobic reactions / obsessive reactions / senile agitation / agitated depression / emotional stress associated with a wide variety of physical conditions

In the patient with anxiety and tension symptoms — Vesprin calms him down without slowing him up... and does not interfere with his working capacity. Vesprin permits tranquilization *without* oversedation, lethargy, apathy or loss of mental clarity.[4]

And Vesprin exhibits an improved therapeutic ratio — enhanced efficacy with a low incidence of side effects; no reported hypotension, extrapyramidal symptoms, blood dyscrasia or jaundice in patients treated for anxiety and tension.[1,2,3]

dosage: for "round-the-clock" control — 10 mg. to 25 mg., b.i.d.; for "once-a-day" use — 25 mg. once a day, appropriately scheduled, for therapy or prevention. **supply:** Oral Tablets, 10, 25 and 50 mg., press-coated, bottles of 50 and 500; Emulsion (Vesprin Base) — 30 cc. dropper bottles and 120 cc. bottles (10 mg./cc.). **references:** 1. Stone, H.H.: Monographs on Therapy 3:1 (May) 1958. 2. Reeves, J.E. Postgrad. Med. *24*:687 (Dec.) 1958. 3. Burstein, F.: Clinical Research Notes *2*:3, 1959. 4. Kris, E.: Clinical Research Notes *2*:1, 1959. 'VESPRIN®' is a Squibb Trademark

Vesprin—the tranquilizer that fills a need in every major area of medical practice

SQUIBB
Squibb Quality —
the Priceless Ingredient

(Continued from Page 1176)

Plasmologen.—Investigation into the biological formation and role of one of the body's unexplained chemical compounds is underway at The University of Michigan Medical Center. Dr. William E. Lands, Ph.D., is conducting a three-year study on plasmalogen with a research grant of $23,370 from the National Science Foundation. Plasmalogen is an unusual compound found in high concentration in the nervous and muscular tissues of the body. Although discovered before 1930, its biochemical properties are still a mystery.

* * *

The May 11 windstorm that damaged a large portion of Ann Arbor gave The University of Michigan Medical Center an "excellent test" of its disaster plan for handling mass casualties. Roger B. Nelson, M.D., associate director of University Hospital, said a review of the mobilization alert showed that 400 doctors and nurses were ready within thirty minutes to handle the expected flood of casualties from the disaster scene.

"First reports led us to expect from 20 to 100 casualties, Dr. Nelson said. "As it turned out, we were not needed. We are grateful that no one was injured severely enough to need treatment. But if a stream of wounded had come to us, I feel sure we could have handled them."

* * *

An $8,280 grant to support short-term research by medical students has been awarded to Wayne State University by the National Science Foundation.

Students will gain research experience over a three-year period under direction of Morton Levitt, M.D., assistant dean at the College of Medicine.

* * *

Rehabilitation Facilities Survey.—At least 2 million physically disabled and handicapped persons, now unemployable and often public charges, could be effectively rehabilitated if more people knew about the extent of the rehabilitation services available in this country according to W. Scott Allan, manager of the medical services division of Liberty Mutual Insurance Company, who spoke before the third of a series of four rehabilitation forums being held as a part of the Pittsburgh Bicentennial celebration.

A survey of physicians conducted by the Graduate School of Public Health of the University of Pittsburgh showed that 49 per cent of the doctors interviewed gave the lack of facilities as the chief reason that their patients who needed it were not receiving rehabilitation. The survey was made in cooperation with the Pennsylvania Medical Society. In truth, very few of the existing rehabilitaion centers are operating at full capacity. He noted that because too few patients were referred to a center, many of them were not operating at maximum efficiency, considering their space, equipment, and staff.

The number of handicapped individuals who could benefit from rehabilitation is between 23 and 28 million. About 2 million of these are now unemployable and in desperate need of rehabilitation in order to work at all.

(Continued on Page 1180)

BRIGHTON HOSPITAL

A non-profit Foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Walter E. Green, M.D., Superintendent and Medical Director.



Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
(U.S. 16)
Brighton, Michigan
Academy 7-1211

C. A. Conshus, M.D., Says . . .



Five Points are his guide in detection.

No symptom escapes his inspection;

His ultimate goal

Is to cut cancer's toll

His motto is, "Yours for Protection."

Meet Molly, she's one of our Staff.

Don't you wish she were your better half?

Before we are through

You'll meet more of our crew.

And we hope that they'll point to a laugh.



POINT - Cancer Detection - EARLY ! !
DANGER SIGNAL - Delay.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

Say you saw it in the Journal of the Michigan State Medical Society



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX®

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 1178)

Among five alumni of Wayne State University, who received Distinguished Alumni Awards Saturday, May 16, at the University's 91st Alumni Reunion, the oldest to be honored was Fred J. Drolett, M.D., of Lansing, a 1907 graduate in medicine. Dr. Drolett, president of the Lansing WSU Alumni Club, was named Michigan's Foremost Family Physician in 1958. He has served as chief of obstetrics at two Lansing hospitals and as Ingham County Medical Society president.

Frances Fell, a 1950 nursing graduate, was the only woman to be honored. A nurse-midwife consultant now on leave from the World Health Organization, Miss Fell recently returned from two years' service in the Philippines. She is a leader in better care for mothers and babies in remote areas.

* * *

Arkansas Hospital Gift.—Congressional wheels are turning fast to transfer Army and Navy General Hospital at Hot Springs, Ark., to the state of Arkansas. House committee approval came on May 22, and Senate indorsement is anticipated. For years the Army has been trying to decommission the hospital, which is not needed, but Arkansas delegation in Congress has stood in the way. Prospects now are bright for adoption of this compromise—give-away of the 77-year-old institution to Arkansas, which will operate it as a rehabilitation center with Federal financial assistance. Army Surgeon General Silas B. Hays approved the transfer, as did the Office of Vocational Rehabilitation and other Federal agencies.—W.R.M.S.

* * *

Michigan Allergy Society.—The Michigan Allergy Society has presented honorary memberships to two distinguished scientists from The University of Michigan Medical Center.

Dr. Reuben Kahn, who developed a world-famous blood test, and Dr. Walter Nungester, chairman of the U-M Department of Bacteriology, were honored at the society's annual dinner meeting at the Kellogg Center in East Lansing, May 20, 1959.

Dr. Milton J. Steinhardt, Detroit, was elected president of the Society for the coming year.

Vice president is Dr. Robert G. Lovell, assistant dean of the Medical School at the University of Michigan.

Dr. Alex S. Friedlaender, Detroit, and Dr. Hilda Hensel, Monroe, were elected secretary and treasurer.

* * *

Saginaw and Wayne Doctors Host Science Exhibitors.—J. E. Manning, M.D., public relations committee chairman of Saginaw County Medical Society, reports a luncheon was sponsored by the Society honoring participants in the Saginaw Science Fair whose exhibits relating to medicine were considered most outstanding. Twenty students were present and received a Certificate of Merit from Donald Sargent, M.D., SCMS president.

In the Detroit area, Wayne, Oakland and Macomb county medical societies participated in the second an-

Say you saw it in the Journal of the Michigan State Medical Society

The Medical Supply Corp.

NOW IN THEIR NEW

ENLARGED OFFICES AND SHOWROOMS

INCREASED FACILITIES

INCREASED SERVICE

3632 Woodward Avenue

Detroit 1, Michigan

TEmple 1-4588 TEmple 1-4589

nual Metropolitan Detroit Science Fair held this spring.

Physician judges selected the twenty best exhibits in the field of medicine. Following selection, officers and representatives of the three county medical societies hosted the winning student exhibitors at luncheon, awarded Certificates of Merit, and took them on a conducted tour of the Wayne State University College of Medicine.

* * *

A blood defect in schizophrenic patients is believed to cause their inappropriate reactions to people and events in everyday life, according to Charles Frohman, M.D., who reported the findings of a team of Wayne State University physicians at the recent annual meeting of the Federation of American Societies for Experimental Biology in Atlantic City.

Working at Lafayette Clinic, the team of Charles Frohman, M.D., Peter Beckett, M.D., J. S. Gottlieb, M.D., and Kenneth Latham discovered that energy produced by schizophrenic patients was distorted. This caused the failure of their body cells to respond to environmental stress with an appropriate supply of energy.

In earlier experiments, the researchers noted that the normal person's body was able to increase energy output under stress by turning-off synthetic (body-building) processes. This could not be done by the schizophrenic, they found.

Techniques using radioactively labeled glucose estimated the proportion of glucose used for the body-building process and the proportion used for energy.

The schizophrenic patient was unable to decrease the use of glucose for body-building functions and didn't increase energy production under stress as is normally done. Studies will continue to determine the nature of this plasma defect.

* * *

Twenty-six admissions officers representing medical schools in ten states met at The University of Michigan Medical Center, May 14-15, to consider general admissions problems, scholarships and methods for weighing the academic performance of medical students.

According to Dr. Robert G. Lovell, assistant dean of the Medical School, the careful pre-admission screening of applicants is a distinctive feature of American medical schools. By contrast, schools following the European tradition accept all applicants and drop 90 per cent of them through competitive performance before graduation. American schools select only those students believed to have the mental, physical and moral qualities needed to be a doctor. Only about 8 per cent fail to become M.D.'s after acceptance by a medical school.

Schools represented at the meeting were: Indiana University School of Medicine; West Virginia University; University of Pittsburgh; University of Illinois; Meharry Medical College (Nashville, Tenn.); Western Reserve University (Cleveland, O.); The Chicago Medical School; University of Cincinnati; Washington University (St. Louis, Mo.); St. Louis University; University of Louisville, Ky.; Wayne State University; Mar-

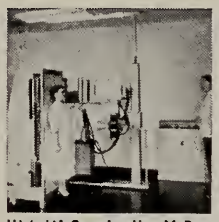
Say you saw it in the Journal of the Michigan State Medical Society



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX®

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York


"Multi-Service" X-Ray Unit. 300, 200, 100 Ma.

More for Your Money
in This Remarkable
Full-Wave X-Ray Unit

200-MA. UNIT FOR NO MORE THAN THE PRICE OF COMPARABLE 100-MA. UNITS

Full Wave Rectified (4 X-Ray Valve Tubes)
Double-Focus Rotating Anode Tube
100 KVP Available at ALL Ma Settings
Fully Automatic Control
Fluoroscope-Mounted Hand-Tilt Table
Full-size 12" x 16" Fluoroscopic Screen
Choice of Floor-Rail-Mounted or Floor-to-Ceiling-Mounted Tubestand
9-Position Motor-Driven Spot Film Device Available
Motor Drive for Table Available
Two-Tube Operation if Desired
UNMATCHED in HIGH QUALITY of Design, Efficiency, Workmanship and Materials

By Comparison this Fischer Unit is the Greatest Value in the X-Ray Industry

H. G. FISCHER & CO.
OF DETROIT
21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE. 7-4140

quette University (Milwaukee, Wis.); University o Chicago; The University of Michigan; Ohio State Uni versity; University of Wisconsin; Loyola University (Chicago); and Northwestern University Medical Schoo (Chicago).

* * *


Dr. Furstenberg

Albert C. Furstenberg, M.D., dean of the University of Michigan Medical School since 1935, has retired after a lifelong career at the University. He retired July 1.

Appointed dean in 1935, he presided over the most rapid expansion of the Medical School in its 109-year history. The growth of educational and research programs in medicine has been paralleled by remarkable physical expansion needed to house student and faculty laboratories and the increasingly complex apparatus essential to medical progress.

During World War II, when doctors were sorely needed by the armed forces, Doctor Furstenberg organized an accelerated program which enabled the U-M Medical School to graduate two classes in one year.

By 1951, he guided the expansion of medical classes to 200 students per class, thereby giving Michigan the largest enrollment of any Medical School in the nation.

Furstenberg was born May 27, 1890, at Saginaw. He is the seventh administrative head of the U-M Medical School since its founding in 1850, but only the fourth to carry the title of "Dean."

He is the first head of the school to be a native Michigander, and the third dean to have received his medical degree from the University.

His associates consider him an outstanding teacher, physician, administrator and gentleman.

Dr. A. C. Kerlikowske, who is the director of The University of Michigan Hospital and who has been associated with Dean Furstenberg for 40 years, said of him: "He has a tremendous capacity for detail and is one of the most inspiring and energetic men I have ever known. His mental capacity and physical stamina are immeasurable."

Doctor Furstenberg has made major contributions toward the understanding of Ménière's disease, otosclerosis and conductive deafness.

Doctor Furstenberg received his M.D. degree at the U-M in 1915, served in the Medical Corps in World War I, and returned to the campus in 1918 to begin specializing in the field of otolaryngology. He rose to the rank of professor in 1932 and chairman of the department, and has won national prominence in the field of ear-nose-throat disorders.

Upon retirement from the University, Dr. Furstenberg will continue in private practice.

He is active in a number of professional associations concerned with medical education, otolaryngology and the general field of medicine.



Gifts and grants totaling $298,400 were accepted by Wayne State University's Board of Governors at its April meeting. A total of $93,992 came from the U. S. Public Health Service, National Institutes of Health and another $28,810 came from the National Science Foundation.

The U. S. Public Health Service grants are for four research projects at the College of Medicine and to continue postgraduate training in psychiatry.

A chemistry research project and in-service training institutes in mathematics and biology for secondary teachers will be supported at the College of Liberal Arts by the $28,810 from the National Science Foundation.

The National Fund for Medical Education gave $31,860 to aid instructional and research programs at the College of Medicine while the Life Insurance Medical Research Fund gave $20,350 for research at the College of Liberal Arts. Another $6,000 for research came from Parke, Davis and Co.

Capital gifts included $105,000 from the Wayne State Fund. A payment of $75,000 completed the Fund's pledge for aid in constructing the Community Arts group. The remaining $30,000 will be used for furnishing the new alumni lounge.

* * *

Further Honors—Fred J. Drolett, M.D., of Lansing, received a Distinguished Alumni Award from Wayne State University at the University's 91st Alumni Reunion, May 16. A graduate of the Wayne School of Medicine in 1907, Doctor Drolett long has been active in alumni affairs and currently is president of the WSU Alumni Club at Lansing. Doctor Drolett, a former president of the Ingham County Medical Society, was named by the Michigan State Medical Society as "Michigan's Foremost Family Physician" in 1958.

* * *

Four Michigan men spoke at the 119th annual meeting of the Illinois State Medical Society in Chicago May 19-22. Eugene A. Osius, M.D., Detroit, filled three assignments, as a speaker at the Section on Obstetrics and Gynecology, as a panelist at the Section on Cardiovascular Disease and as a panel member for a General Assembly session. Jerome W. Conn, M.D., Ann Arbor, gave the Annual Address in Medicine at a General Assembly. Michael J. Brennan, M.D., Detroit, participated in a panel at the Section on Preventive Medicine and Public Health. Joseph G. Molner, M.D., Detroit Commissioner of Health, spoke at a General Assembly.

* * *

James E. Lofstrom, M.D., Detroit, filled two assignments at the 106th annual meeting of the Minnesota State Medical Association. He spoke at a general session about "Management of Strokes" and also was a featured speaker at the Minnesota State Radiological Society dinner.

* * *

Five medical television shows were produced during May by the Michigan Health Council. They included May 3—"Health Careers," using the film "Helping



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

Hands for Julie;" May 10—"Food Quackery," using the film "The Medicine Man;" May 17—"M.D. Placement" using the film "To Save a Life;" May 24—"Highway Safety" using the film "According to the Record;" and May 31—"Highway Safety" using the film "The Case of Officer Hillibrand."

* * *

Degrees were conferred during the Wayne State University commencement exercises June 11 to 66 candidates of the College of Medicine. Dr. Clarence B. Hilberry, University president, spoke briefly before conferring a total of 1,567 degrees.

* * *

The Industrial Health Conference (including the annual session of the Industrial Medical Association) is scheduled for the Rochester Community War Memorial, Rochester, New York, April 23-29, 1960.

* * *

The Pan American Medical Association Congress has been set for May 2-11, 1960 at Mexico City. The scientific program will include all branches of medicine and surgery, and will add new sections on Space Medicine, Hematology, and others.

* * *

American Urological Association offers an annual award of $1,000 total for the top three essays on the result of some clinical or laboratory research in urology. The first-prize essay will appear on the program at the 1960 national meeting. For particulars write the Executive Secretary of the Association, 1120 N. Charles Street, Baltimore, Md.

* * *

More than 200 Michigan physicians attended the first "Doctors Day" held at the University of Michigan Medical Center, May 16.

The day-long program of tours, exhibits, demonstrations and clinical conferences was arranged by a U-M committee headed by Earl F. Wolfman, M.D.

A "live" operation demonstrating the surgical treatment of the hydrocephalic was presented to the conferees at the morning session by closed circuit color television. The surgeon was Kenneth W. Carrington, M.D., senior clinical instructor at the medical center.

Dr. A. C. Curtis, chairman of the department of dermatology, presented case studies in dermatology, also via the hospital's TV circuit.

Following the luncheon address by University Vice-President Marvin L. Niehuss, the group split into individual clinical conferences held by the major departments.

G. B. Saltonstall, M.D., president of the Michigan State Medical Society, attended the meeting as Honorary Chairman of "Doctors Day."

Over eighty medical exhibits erected in the Outpatient Building for the event remained on display over the weekend. They were viewed by an estimated 1,500 people who attended "Hospital Day" open house May 17.

* * *

The Veterans Administration has issued a memo that it can pay for ambulance service or other transportation of patients to its hospitals only when prior authoriza-

Say you saw it in the Journal of the Michigan State Medical Society

tion has been given. In medical emergencies, the private physician who telephones a VA hospital to request emergency admission of a veteran may secure the travel authorization from the hospital by telephone at the same time, the VA points out.

* * *

Doctors were urged to take a more active part in public and civic affairs as a strong method of promoting health education. That challenge was presented at the meeting of the Detroit Adult Education Association by William W. Bolton, M.D., associate director of health education of the AMA.

The AMA, Doctor Bolton said, has encouraged community participation as the true role of the private physician in health education. He pointed out that the AMA does not consider such activities as public appearances, radio and television discussions, and community service as unethical.

Sidney Chapin, M.D., also appeared as a speaker at the Detroit Adult Education meeting.

* * *

The University of Michigan has announced two appointments to the board of governors of the Institute of Industrial Health. E. Gifford Upjohn, M.D., president of The Upjohn Company, Kalamazoo, was appointed to succeed the late Michael Gorman, Flint Journal editor. George A. Jacoby, director of personnel relations for General Motors Corporation, was named to succeed Max R. Burnell, M.D., who has retired as medical director of GMC.

* * *

Wayne State University recently approved several gifts and grants for the College of Medicine. A grant of $48,124 came from the U. S. Public Health Service, National Institutes of Health, for three research projects at the College of Medicine. American Cyanamid Co. gave $12,787 representing the Lederle Medical Faculty Award in support of the teaching and research of Dr. Benjamin M. Lewis. Other grants to the College of Medicine included $33,239 from the American Cancer Society, $13,090 from the National Science Foundation, $26,498 from the U. S. Public Health Service for equipment, and $4,200 from Parke, Davis and Co.

* * *

Affiliated Hospital Meeting.—Physicians and administrators from 23 Michigan hospitals attended the Seventh Annual Meeting of Affiliated Hospitals held at The University of Michigan Medical Center June 3.

Discussion leaders included Dr. Larry N. Birch, of Butterworth Hospital, Grand Rapids; Dr. E. Thurston Thieme, chief of surgery at St. Joseph Mercy Hospital, Ann Arbor; Dr. Robert L. Faulkner, secretary, American Board of Obstetrics and Gynecology; Dr. William J. Fuller, surgeon, Blodgett Memorial Hospital, Grand Rapids; and Dr. Bert M. Bullington, chief of internal medicine, Saginaw General Hospital, Saginaw.

Participants from the U-M Medical Center included Dr. John M. Sheldon, director of postgraduate medicine; Dr. Charles G. Child, III, chairman of the Department of Surgery; Dr. Norman F. Miller, chairman of the Department of Obstetrics and Gynecology; and Dr. Harry

McKesson Emergency Oxygen & Resuscitation Unit



A small portable unit extremely simple to operate, yet efficient for all cases requiring oxygen.

The unit, in addition to supplying oxygen to any patient, can be used as a resuscitator by simply squeezing the bag, which forces oxygen into the lungs.

The flow valve is designed with an adjustable zero position, thus the scale will always indicate the approximate flow rate. The scale is graduated from 0 to 10.

Since the flow valve will open only one turn, it provides a distinct protection to inexperienced personnel should the flow valve be left open when the unit is attached to a full cylinder of Oxygen.

The carrier is designed for carrying either D or E size cylinders and is equipped with rubber feet to prevent the marring of highly polished surfaces.

Weight of carry stand valve and rubber parts—5¼ lbs.

No. 310 Emergency Oxygen unit complete with carrier, flow valve, tank pressure gauge, cylinder valve wrench, exhaling valve and body, plus all rubber parts—$59.50.

Noble-Blackmer, Inc.

267 W. Michigan
Jackson, Michigan



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE
124 West Gates Street
Romeo, Michigan

A. Towsley, professor of pediatrics and associate director of postgraduate medicine.

* * *

The Polish Institute of Arts and Sciences in America has issued an appeal for new and used medical textbooks, reference books and journals to Poland's medical schools and teaching hospitals. In the plea for contributions, it was pointed out, that the effects of the devastations of war upon medical education in Poland are far from overcome and that there are many physicians and medical students in Poland who want to read American medical books and journals.

Individuals and organizations may send books and journals prepaid postage, express or freight to Mr. Maryan Chodacki, Polish Institute of Arts and Sciences in America, 145 East 53 Street, New York 22, New York.

* * *

The American College of Chest Physicians Gold Award was conferred this year on Murray Kornfeld, Chicago, Illinois, Founder and Executive Director of the College. This is the first time the Gold Medal has been awarded to a lay person. The honor was bestowed on Mr. Kornfeld for having founded the American College of Chest Physicians, for having developed the College into a worldwide medical society, for having founded and developed the journal, *Diseases of the Chest,* and for having devoted thirty-two years of his life as a leader in furthering the specialty of diseases of the chest.

* * *

The Arthritis and Rheumatism Foundation offers predoctoral, postdoctoral and senior investigatorship awards in the fundamental sciences related to arthritis for work beginning July 1, 1960. Deadline for applications is October 31, 1959. These awards are intended to advance the training of men and women for an investigative or teaching career. They are not in the nature of a grant-in-aid in support of research project. For further information write the Medical Director, Arthritis and Rheumatism Foundation, 10 Columbus Circle, New York 19, New York.

* * *

H. Marvin Pollard, M.D., Ann Arbor, was elected a Regent of the American College of Physicians at the Association's annual session in Chicago. He has served as Michigan Governor of the American College of Physicians since 1953.

* * *

The New York University Postgraduate Medical School will offer a two-month course for physicians in occupational medicine, September 14-November 6. Full information about this Institute of Industrial Medicine may be obtained from the Medical School, 550 First Avenue, New York 16, N. Y.

* * *

The University of Michigan Medical School has accepted 200 students, from more than 800 applications, for the medical class of 1963. The entering class, limited by classroom and laboratory resources and by the availability of instructors, is the largest in



the nation, equalled only by the University of Tennessee.

For the first time, the University offered five freshman tuition scholarships to induce outstanding students to enter the field of medicine.

* * *

Ralph W. Ridge, Sr., M.D., of Wyandotte, received a plaque commemorating his half-century of medical service at a ceremony sponsored by the Wyandotte General Hospital staff. One of the first Wyandotte General chiefs of staff, he formerly practiced at Coldwater and has been practicing in Wyandotte for twenty-five years.

* * *

James E. Lofstrom, M.D., of Detroit was guest speaker at the Minnesota State Medical Association Annual Meeting in Duluth, May 25-27.

* * *

The Michigan Academy of Physical Medicine and Rehabilitation at its Flint meeting heard Harold W. Woughter, M.D., of Flint, discuss "Hand Injuries." The meeting was held at the Fisher Body Plant and included a tour of the factory.

* * *

Parke, Davis & Company has been presented an award for "Distinguished Advertising in the Public Interest" by *The Saturday Review* magazine. The award recognized the 1958 advertising series which "was designed to give people a better understanding of the 'better health and longer life' that comes through the use of modern medicines."

Doctors seeking a location to practice are urged by the Michigan Health Council to utilize the "Local M.D. Placement Advisors." These local placement advisors, by action of the Michigan State Medical Society, are the immediate past presidents of the component county medical societies.

Names and addresses of these advisors may be obtained from the Michigan Health Council, 712 Abbott Road, East Lansing.

* * *

Osborne A. Brines, M.D., Detroit, spoke on "Uterine Cancer" at the March meeting of the Lenawee County Medical Society at Adrian.

* * *

A summer series of half-hour television programs about "Psychiatry in Medicine" is being presented over Channel 56 by the Wayne State University Department of Psychiatry of the College of Medicine. Under the direction of John M. Dorsey, M.D., of Wayne, the program is designed primarily for the general practitioner and all persons interested in the broad field of medicine. Presented over the Wayne TV station at 8 p.m. each Friday, the series began June 26 and will continue through August 28.

* * *

MSMS members interested in contacting any of the guest essayists at the Annual Session in September are requested to make these arrangements through their "ubiquitous hosts." The ubiquitous hosts are Michigan doctors of medicine who are appointed semi-annually

PROFESSIONAL MANAGEMENT • FOR PHYSICIANS AND DENTISTS
since 1932 PM ®

Battle Creek	WO 5 5253
Detroit	WO 1-6259
Grand Rapids	GL 6-1781
Saginaw	SW 2-7661

TESTED — Rx — APPROVED
By
Professional Management
THE NEW PM WRITING BOARD

ONE WRITING ONLY

- Produces a receipt
- Provides an up-to-date statement
- Posts the patient's account
- Permits photo-type statements
- Makes the day book record
- Minimizes bookkeeping

by the Society in connection with the Annual Session (September) and the Michigan Clinical Institute (March). These hosts demonstrate the meaning of Michigan hospitality to the eminent guest speakers from other parts of the United States and Canada. Their work over the years has resulted in Michigan's gaining an enviable reputation for extending unusual courtesies to our guest essayists.

The following ubiquitous hosts have been selected for some of the guest essayists who will appear at the 1959 Annual Session speakers at Grand Rapids, September 29-30, October 1-2:

Guest Speakers	*Ubiquitous Hosts*
Walter Bauer, M.D. Boston, Mass.	S. M. Wells, M.D. Grand Rapids
Harvey Blank, M.D. Miami, Florida	W. T. Kruse, M.D. Grand Rapids
Edward M. Dorr, M.D. Chicago, Ill.	(to be announced)
Isadore Dyer, M.D. New Orleans, Louisiana	C. F. Webb, M.D. Grand Rapids
Robert L. Faulkner, M.D. Cleveland, Ohio	(to be announced)
Thomas P. Findley, M.D. Augusta, Ga.	L. P. Ralph, M.D. Grand Rapids
Michael L. Furcolow, M.D. Kansas City, Kansas	W. B. Prothro, M.D. Grand Rapids
Frederick G. Germuth, Jr., M.D. Charlotte, N. C.	C. A. Payne, M.D. Grand Rapids
Vernon L. Guynn, M.D. Chicago, Ill.	L. C. Carpenter, M.D. Grand Rapids
Jerome A. Hilger, M.D. St. Paul, Minn.	G. D. Albers, M.D. Grand Rapids
James H. Hughes, M.D. Memphis, Tenn.	J. C. Montgomery, M.D. Grand Rapids
Lorand V. Johnson, M.D. Cleveland, Ohio	R. H. Gilbert, M.D. Grand Rapids
Aaron B. Lerner, M.D. New Haven, Conn.	Kornelius VanGoor, M.D. Grand Rapids
Dr. Clarence Cook Little Ellsworth, Maine	G. B. Saltonstall, M.D. Charlevois
Samuel Livingston, M.D. Baltimore, Maryland	A. M. Hill, M.D. Grand Rapids
Carl Muschenheim, M.D. New York City	F. S. Alfenito, M.D. Grand Rapids
Tracy O. Powell, M.D. Los Angeles, Calif.	W. C. Baum, M.D. Grand Rapids
Charles B. Puestow, M.D. Chicago, Ill.	W. J. Fuller, M.D. Grand Rapids
Howard P. Rome, M.D. Rochester, Minn.	R. L. Fitts, M.D. Grand Rapids
John A. Rose, M.D. Philadelphia, Pa.	K. C. Nickel, M.D. Grand Rapids
Ivan H. Smith, M.D. London, Ontario, Canada	R. I. Seime, M.D. Grand Rapids
Leo J. Wade, M.D. New York City	R. H. Denham, M.D. Grand Rapids
John G. Young, M.D. Dallas, Texas	J. E. Webber, M.D. Grand Rapids

Will You be at
Grand Rapids
September 28, 29, 30,
October 1, 2?

Malpractice Prophylaxis

TRAINING PERSONNEL NOT TO EXCEED INSTRUCTIONS

Specialized Service makes our doctor safer

THE MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office
George A. Triplett and Richard K. Wind
Representatives
2405 West McNichols Road
Telephone University 2-8064

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE NEUROSES AND THEIR TREATMENT. Edited by Edward Podolsky, M.D., F.A.P.A., F.A.P.M., Department of Psychiatry, Kings County Hospital, Brooklyn, New York; Psychiatrist, Boro Medical Center, Brooklyn, New York. New York: Philosophical Library, 1958. Price, $10.00.

Few practitioners will question the statement that those illnesses called "neurosis" or "psychoneurosis" are responsible for a high percentage of the people seeking medical aid. Many of these same practitioners will have firmly fixed feelings concerning the mode and method of treatment for such disorders and perhaps may even have better than average success with these methods. It probably is not a surprise to them that a clear-cut, generally accepted definition of neurosis is not available. In a review such as this, these confusions concerning definition of the illness, as well as the widely divergent views on treatment, much of which is nevertheless effective, are clearly brought out.

With these concepts in mind, the author of this book has selected a number of papers from a number of sources hoping to provide for the reader a better basis for the management of these problems. The subjects covered range from the anxieties of infancy to the problems of middle-age.

The methods of treatment reviewed include such physical therapies as carbon dioxide treatment, frontal lobotomy, and the use of ataractics, as well as the more common psychotherapeutic methods. The selection of papers in general is good, and the book is recommended as a source of interesting reading for the generalist.

F.O.M.

THE CHILD WITH A HANDICAP. A Team Approach to His Care and Guidance. Edited by Edgar E. Martmer, M.D., Past President, American Academy of Pediatrics; Associate Clinical Professor of Pediatrics, Wayne State University, College of Medicine; Chief, Division of Pediatrics, Harper Hospital; Senior Pediatrician, Children's Hospital of Michigan; Consultant in Pediatrics, East Side General Hospital, Crittenden General Hospital, Herman Kiefer Hospital, Receiving Hospital, St. John's Hospital, Woman's Hospital, Detroit, Michigan. Springfield, Illinois: Charles C Thomas, 1959. Price $11.00.

This book is in three sections. Part I deals with the team care. Part II gives what authoritative information to impart to the parents. Part III deals with the materials involved in the care of the handicapped child, community programs, camps, schools and other facilities for these children. The editor and authors are to be congratulated for the production of this much-needed volume.

Dr. Edgar E. Martmer, editor of this book, has made a wise and wonderful contribution to the practice of pediatrics. The contributing editors have been chosen wisely, and their fruitful experience in the team care of the handicapped child is well demonstrated.

R.S.S.



Plainwell Sanitarium

PLAINWELL, MICHIGAN

Member American Hospital Association

EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief

Professional care for the nervous and mentally ill.

Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE—Allergy Practice located in a Michigan City of 200,000. Gross income $50,000 annually. Physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Write: Box 9, 606 Townsend Street, Lansing, Michigan.

LOCATION DESIRED—Dentist, eight years' experience in all phases of dentistry, wishes to relocate in medical building or clinic in lower peninsula. Prefers to rent space. Character references available. Write Box No. 14, 606 Townsend Street, Lansing 15, Michigan.

FOR LEASE—Modern, ranch-style building with furnished office and adjoining living quarters. Option to buy. Suburbs of Detroit. Phone AV 2-7911 Wyandotte, Michigan. Write 13819 Trenton Road.

WANTED—General Practitioner to take over an active practice in Brighton, Michigan. This is truly a wonderful opportunity for the right man. Write Box 15, 606 Townsend Street, Lansing, Michigan.

FOR RENT—In Pontiac, Michigan. Medical space in new contemporary bi-level medical-dental office building. Central air conditioning, ample parking, ideally located in suburban area. Will finish to suit tenant. Ready for occupancy August 15. For further information, contact Kenneth Dickstein, D.D.S., 240 Chippewa, Pontiac, Michigan. Phone FE 2-9806.

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff

Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
David C. English, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 AUGUST, 1959 NUMBER 8

Contributors to This Issue



R. T. Blackhurst, M.D.



Manuel Fernandez, M.D.



E. Malcolm Field, M.D.



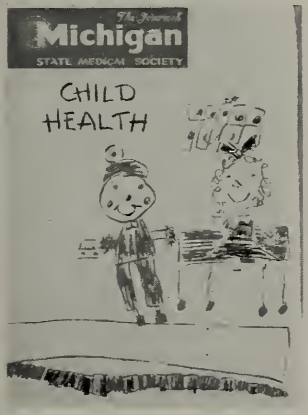
J. M. Hammer, M.D.



Raymond D. Sphire, M.D.



Ernest H. Watson, M.D.



ABOUT THE COVER . . . The artist this month is Kathy Cook, five-year-old Lansing girl, who sketched her impressions of a visit to her doctor's office. Kathy had been having ear trouble, so her doctor is drawn complete with his head mirror. Kathy made the sketch for her father, John R. Cook, chief of the section of education, Michigan Department of Health, who had been asked to help with ideas for the Child Health JOURNAL cover by Goldie Corneliuson, M.D., a member of the MSMS Child Welfare Committee.

Table of Contents

Adoption of Children
Ernest H. Watson, M.D. 1247

Reduction of Fetal and Neonatal Mortality and Morbidity
Goldie B. Corneliuson, M.D. 1254

Treatment of Acne Vulgaris with Polythionates Incorporated in a Vanishing Cream Vehicle
J. R. Delaney, M.D., et al 1259

Perforation of the Stomach in the Newborn
E. Malcolm Field, M.D., et al 1262

Roentgen Findings in Histoplasmin-Positive School Children
Walter M. Whitehouse, M.D., et al 1266

Effect of Operative Procedure on Gastric Acidity of Anesthetized Children
Manuel Fernandez, M.D. 1270

Endotracheal Anesthesia in Pediatric Plastic Surgery
Raymond D. Sphire, M.D. 1273

Experiences of the University of Michigan Poison Information and Therapy Center During 1958
George H. Lowrey, M.D. 1276

A Close Look at Partial Blindness
R. T. Blackhurst, M.D. 1279

Revision of Cause of Death Classification for Neonatal Deaths
Joseph G. Molner, M.D., et al 1285

Effect of Antiperistaltic Gut Segments on Intestinal Emptying Time
J. M. Hammer, M.D., et al 1289

Detroit Surgical Association 1290
President's Page 1292
Editorial 1293
New Building Progress 1298
Michigan State Medical Society Annual Session
The Grand Old Men of Medicine 1301
State Society Night 1303
Meetings of Special Societies 1304
Annual Reports 1305
Technical Exhibits 1321
AMA—Report on Actions of House of Delegates 1330
Michigan's Department of Health 1334
Communications 1336
Legal Opinion 1340
In Memoriam 1342
News Medical 1344
"C. A. Conshus, M.D." 1355
The Doctor's Library 1360

You and Your Business 1198
PR Report 1220
Seal of Assurance Plan 1222
J. R. Heidenreich and W. H. Huron Honored 1226
The Senior Citizen 1232
New Dean at University of Michigan 1236
Medical Meetings and Clinic Days 1236
Cancer Comment 1238
AMA Washington Letter 1241
Editorial Comment 1244

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 AUGUST, 1959 NUMBER 8

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. ALLEN PAYNE, M.D.....Grand Rapids

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman*, Calumet
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.*	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1964
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice Speaker*		Detroit
D. BRUCE WILEY, M.D.	*Secretary*		Utica
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.*.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

*Dr. Shook died August 9, 1959.

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo *Chairman*
Alice E. Palmer, M.D.....Detroit *Secretary*

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit *Chairman*
Ralph R. Cooper, M.D.....Detroit *Secretary*

General Practice
C. W. Royer, M.D.....Battle Creek *Chairman*
J. M. McGough, M.D.....Detroit *Secretary*

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids *Chairman*
Warren R. Moore, M.D.....Detroit *Secretary*

Medicine
G. T. McKean, M.D.....Detroit *Chairman*
J. J. Lightbody, M.D.....Detroit *Secretary*

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor *Chairman*
R. A. Jaarsma, M.D.....Flint *Secretary*

Occupational Medicine
T. I. Boileau, M.D.....Birmingham *Chairman*
William Jend, Jr., M.D.....Detroit *Secretary*

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint *Chairman (Ophth.)*
Harold F. Schuknecht, M.D.....Grosse Pointe *Co-Chairman (Oto.)*
Paul L. Cusick, M.D.....Detroit *Secretary (Ophth.)*
J. E. Magielski, M.D.....Ann Arbor *Co-Secretary (Oto.)*

Pediatrics
G. E. Hause, M.D.....Detroit *Chairman*
H. T. Knobloch, M.D.....Bay City *Secretary*

Public Health and Preventive Medicine
H. B. Robins, M.D.....Battle Creek *Chairman*
L. V. Burkett, M.D.....Flint *Secretary*

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park *Chairman (Path.)*
Bernard S. Kalayjian, M.D.....Detroit *Vice Chairman (Rad.)*
G. C. Frederickson, M.D.....Detroit *Secretary (Anes.)*

Surgery
C. D. Benson, M.D.....Detroit *Chairman*
E. A. Osius, M.D.....Detroit *Secretary*

Urology
H. V. Morley.....Detroit *Chairman*
A. W. Bohne, M.D.....Detroit *Secretary*

DELEGATES TO A. M. A.

Delegates
W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
W. W. Babcock, M.D., Detroit.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
W. D. Barrett, M.D., Detroit.....1960
R. L. Novy, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates
O. J. Johnson, M.D., Bay City.....1959
E. F. Sladek, M.D., Traverse City.....1959
Wm. Bromme, M.D., Detroit.....1960
L. R. Leader, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate
G. C. Penberthy, M.D.....Detroit

day and night—ulcer control with **B.I.D.** *dosage*



Just one 10 mg. Daricon tablet in the morning, and one at night before retiring, keeps your patient free from the pain and discomfort caused by gastrointestinal spasm, hypermotility, and hypersecretion.

Daricon is a remarkably potent and well tolerated antisecretory/antimotility agent. Its *naturally* prolonged action provides day and night relief of pain and symptoms associated with peptic ulcer, functional bowel syndrome, biliary tract dysfunctions, and other gastrointestinal disorders characterized by spasm, hypermotility, and hypersecretion.

EVEN REFRACTORY CASES RESPOND

new **DARICON***

oxyphencyclimine hydrochloride

Pfizer *Science for the world's well-being*™

Pfizer Laboratories
Division, Chas. Pfizer & Co., Inc.
Brooklyn 6, New York

References: 1. Finkelstein, M., et al.: J. Pharmacol. & Exper. Therap. 125:330 (April) 1959. 2. McHardy, G., et al.: Postgrad. Med., in press. 3. Winkelstein, A.: Amer. J. Gastroenterol., in press. 4. Finkelstein, M., et al.: Presented at Fall Meeting, Amer. Soc. Pharmacol. & Exper. Therap., 1958. 5. Leming, B.: Clin. Med. 6:423 (March) 1959.

*Trademark

You and Your Business

DOCTORS' NURSES ORGANIZE

A new nonprofit American Association of Doctors' Nurses has been incorporated and maintains its headquarters in the American Building Washington, D. C. The Association has assumed the old American Registry of Doctors' Nurses in order to eliminate legitimate objections from other nursing groups. The purpose of the Association is to promote the welfare of its members, to elevate the standards and ethics of their profession, and to enroll Doctors' Nurses in order that they may advance their status as proven members of that profession.

The doctor's nurse must be able to qualify as an experienced Doctors' Nurses in order to become a member and her application stating her qualifications must be signed by a Doctor of Medicine.

The membership is composed of not only those whose experience has been entirely in doctor's offices, but also Trained Nurses and Practical Nurses who are not serving in hospitals. nor engaged in private duty, but are now serving in doctor's offices. At the present time, there are members in all the states, Puerto Rico, and the Republic of Panama.

The Association will consist of state and local chapters and these chapters will elect delegates to represent them at all Association Conventions.

MEDICAL COSTS AFFECT AUTOMOBILE INSURANCE RATES

In the *Journal of American Insurance,* January 1959, there is an article entitled "Here's What Boosts Automobile Insurance Rates."

Of interest to the average automobile owner is the increase in replacement, repairs, parts and labor during a ten-year period. The factor that increased greatest was the rear fender when considering the labor only. This increased 675 per cent. The cost of the parts in association with the rear fender increased 230 per cent in this same period. The next highest item was the windshield which for parts only increased 500 per cent.

Of interest to the doctors is the information regarding the increase in jury awards for hospitalization, nurses, and medicine. The greatest increase took place in what is called the jury personal injury awards. This increased 266 per cent in a ten-year period. The next highest was the hospital cost per patient which increased 167 per cent; following was the nurses' hourly rate which increased 113 per cent. The hospital rates per hospital stay increased 87 per cent during this period, whereas, the salary of the hospital employes increased 40 per cent. At the bottom of the list is the increase in medical care which increased 38 per cent during this ten-year period. —*Bulletin, Genesee County Medical Society,* June, 1995.

FOUNDATION AIDS STUDY IN HOSPITALS

The W. K. Kellogg Foundation announced an $88,540 grant to the American Association of Medical Record Librarians to aid in a training program for hospital medical record-keepers.

The Foundation's assistance over a three-year

(Continued on Page 1200)

Resolution Regarding L. Fernald Foster, M.D.

(The following resolution was adopted by the Executive Committee of The Council, June 24, 1959.)

Whereas, at best our personal knowledge is meager and our memories short, and

Whereas, we have had with us a man of great depth of character, high scientific attainment, and blessed with broad administrative abilities and

Whereas, his accomplishments have not always carried his name for he was always one to forsake personal credit in favor of project success, and

Whereas, to attempt to list his contributions to the organization and advancement of his chosen profession would be endangered by our inability to surely complete such a task, and

Whereas, for his twenty-three years as Secretary of the Michigan State Medical Society, for serving as its President, and as the President of Michigan Medical Service, he deserves rewards far in excess of any he received while on this earth or any that we can now offer; therefore, be it

Resolved: That we, severally and as a body, do hereby make permanent record of our admiration and respect for L. Fernald Foster, M.D.; that we note with sorrow his untimely passing; and that we do recognize with thanks to his memory and his family the unparalleled contribution he made to the medical profession over the quarter-century that he served as an officer and leader of his beloved Michigan State Medical Society, and be it further

Resolved: That a copy of this resolution be prepared in appropriate form, made a part of the minutes of this meeting, and forwarded to the many members of Doctor Foster's family.



Prompt
4 way check of
DIARRHEA

POMALIN TRADEMARK
Liquid

New RASPBERRY FLAVOR
and pink color make POMALIN pleasant to take and appealing to both children and adults.

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis

FORMULA:

Each 15 cc. (tablespoon) contains:

Sulfaguanidine	2 Gm.
Pectin	225 mg.
Kaolin	3 Gm.
Opium tincture	0.08 cc.
(equivalent to 2 cc. paregoric)	

SUPPLIED:

Bottles of 16 fl. oz.
Exempt Narcotic.
Available on Prescription Only.

DOSAGE:

ADULTS: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

CHILDREN: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

Winthrop LABORATORIES
New York 18, N. Y.

MEDICAL COSTS AFFECT AUTOMOBILE INSURANCE RATES

(Continued from Page 1198)

period will enable the association to establish a correspondence course for hospital personnel in record departments, most of whom have had only "on-the-job" training and are handicapped by lack of formal education in their specialty.

The study program, to be available to medical record workers the nation over, will be similar to a successful Canadian project which also was established with Foundation help.

Although the medical record-keepers are responsible for maintaining permanent memoranda on why a patient was admitted to a hospital, what happened during the course of hospitalization and final diagnosis, few are adequately trained to do the job, the Foundation observed.

The new study program will extend educational service to personnel of hospitals who are unable to attend approved schools for medical record science.

The course is planned to embrace twenty-five lessons and one examination to be completed in no less than fifteen months and no more than twenty-four months. Courses will include medical terminology, coding of diseases and operations, and orientation to health, hospital and medical record fields.

INFLATION

Inflation has taken a 32-cent "bite" from the dollar just since the war. And if inflation continues, it could make even today's prices seem low.

This is the report in a folder printed by the Institute of Life Insurance, 488 Madison avenue, New York 22, N. Y.

The folder points out further:

"Inflation is hungry . . . permanently hungry. All the time, it's nibbling away—at your pay day dollar—your nest egg dollar—at every dollar you spend or save. You pay for inflation. You pay, pay and pay.

"Your representative in Congress understands this and is no doubt doing what he can. But he needs your support in every effort he makes to get the government to live within its income."

MORE ABOUT INFLATION

Figuring in the growth of Social Security taxes and income taxes and the lost purchasing power due to inflation, the National Industrial Conference Board recently came up with these startling salary comparisons:

A man must earn $7,035 today to have the same after-taxes purchasing power that a $3,000-a-year salary would have given him in 1939.

$12,113 in salary today is equivalent to $5,000 in 1939.

$173,239 today equals $50,000 in 1939.

$388,547 today is the same as $100,000 in 1939.

The man who earned $10,000 in 1939 paid only $269 in taxes. His counterpart today, who earns $25,674, pays $5,395 in taxes, has lost $10,548 in purchasing power due to inflation, which gives him a net in 1939 dollars of $9,731. In other words, the executive who earned $25,000 in 1939 had a purchasing power of more than $23,000, while the man who makes $25,000 today nets less than $10,000 in 1939 dollars.—*Query,* June, 1959.

FREEDOM OF CHOICE

More than three-fourths of the population of the United States want to choose their own doctor. In addition, they want to assume all or part of the responsibility for paying their doctor bills. These were among the findings in a survey conducted among a sampling of the adult population by Opinion Research Corporation, Princeton, New Jersey, for the American Medical Association. The purpose of the study was to explore attitudes about the choice of physicians.

The study also showed that:

- Eighty-eight per cent of the population believe the right to see the same doctor regularly is of vital importance.
- Eighty-nine per cent believe that medical care in this country has improved over the past twenty years.
- Seventy-six per cent of the people said they wanted to choose their own physician; thirteen per cent saw no difference in whether they or someone else chooses their physician; eight per cent preferred to have someone else choose and three per cent had no opinion.
- Concerning the payment of medical bills, a total of seventy-nine per cent wanted to assume all or part of the responsibility for paying their doctor bills either by direct payment or by paying part of insurance premiums.

  The seventy-nine per cent breaks down into the following: sixteen per cent for paying all doctor bills directly, sixteen per cent for paying all costs of insurance plans and forty-seven per cent for paying part of the cost of an insurance plan. The remaining twenty-one per cent favored someone else paying the bills.—*Query,* July, 1959.

RENDER MCCC BILLS THIRTY DAYS AFTER DISCHARGE

. . . Physicians and hospitals treating crippled and afflicted children once again will be required to submit their bills within 30 days after the patient's discharge from the hospital, instead of 90 days as

(Continued on Page 1204)

t's as easy as 1, 2, 3 to use

HYDRODIURIL T.M.

(HYDROCHLOROTHIAZIDE)

Initiate therapy with HYDRODIURIL: one 25 mg. tablet or one 50 mg. tablet once or twice a day. HYDRODIURIL by itself often causes an adequate drop in blood pressure over a period of two to three weeks. This may be all the therapy some patients require.

Add or adjust other agents as required: HYDRODIURIL enhances the activity of all commonly-used antihypertensive agents; thus, the dosage of other medication (rauwolfia, reserpine, hydralazine, veratrum) should be initiated or adjusted as indicated by patient condition. If a ganglion-blocking agent is contemplated or being used, usual dosage must be reduced by 50 per cent.

Adjust dosage of all medication: the patient must be frequently observed and careful adjustment of all agents should be made to establish optimal maintenance dosage.

Supplied: 25 mg. and 50 mg. scored tablets HYDRODIURIL (Hydrochlorothiazide) bottles of 100 and 1,000.
Additional literature for the physician is available on request.

HYDRODIURIL is a trademark of Merck & Co., Inc. Trademarks outside the U S · DICHLOTRIDE, DICLOTRIDE, HYDROSALURIC.

MSD MERCK SHARP & DOHME, Division of Merck & Co., Inc., Philadelphia 1, Pa.

RENDER MCCC BILLS THIRTY DAYS AFTER DISCHARGE

(Continued from Page 1200)

is presently allowed, under amendments approved by the Legislature this year, over the vigorous objections of the Michigan State Medical Society and the Michigan Crippled Children Commission. The Auditor General's office, in recommending the change, cited difficulties in determining fiscal status of the Commission under the 3-month allowance.

The change was given "immediate effect," so it became law upon signature of the Governor.

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of June 24, 1959

A total of eighty-five items was presented to the Executive Committee at its nine-hour meeting in Ypsilanti on June 24. Chief in importance were:

- **Members of the Executive Committee** of The Council stood for a minute in silent tribute to the memory of the late long-time Secretary, L. Fernald Foster, M.D., and ordered that a suitable resolution be spread upon the minutes with transmittal of a copy to the Foster family (see page 1198).
- **Financing the new MSMS headquarters building** was thoroughly discussed and recommendations were referred to the Finance Committee for consideration at its July 17 meeting.
- **K. H. Johnson, M.D., Lansing,** gave a progress report on the new and old MSMS buildings, including information that the excavation for the new building in East Lansing is completed and all concrete footings have been placed, with wooden forms erected as bases for the concrete walls (155'x47'); the contract between MSMS and Contractor Granger Brothers, Inc., has been approved by Legal Counsel. Authorization was given The Council Chairman to sign the contract in behalf of MSMS.

  The architect's recommendation re incorporation of cornerstone was approved.

  A special gifts committee was created (to be the personnel of the present Committee on Big Look headed by W. S. Jones, M.D., Menominee).

  The notice of rezoning the old MSMS property at 606 Townsend, has been posted. A ninety-day exclusive listing to Green Realty Company of Lansing was authorized, with $85,000.00 as asking price for present headquarters with the proviso that MSMS retain possession of the building until ready to move to new headquarters.

  The Executive Committee of The Council expressed its thanks to Doctors Jones and Johnson for their excellent work in connection with the new and old MSMS buildings.
- **A special committee** (Drs. A. E. Schiller and L. J. Bailey) reported result of study of use of MSMS addressograph.
- **A. E. Schiller, M.D.,** Detroit, was elected Chairman of The Council to fill the unexpired term of D. Bruce Wiley, M.D., and D. Bruce Wiley. M.D., Utica was elected Secretary of the Michigan State Medical Society to fill the unexpired term of the late L. Fernald Foster, M.D.
- **Milton A. Darling, M.D.,** Detroit, President-Elect of The Michigan State Medical Society. announced the personnel of MSMS Committees for 1959-60.
- **A Michigan Medical Service resolution,** approved by its Board of Directors, recommended that consultants or advisor representatives of the national Blue Shield Medical Care Plans meet with The Council of MSMS or its designated representatives. Specifically named were Donald H. Stubbs, M.D., Washington, D. C., (President of BSMCP) and Mr. John W. Castellucci, Chicago, (Executive Vice President of BSMCP). The Executive Committee of The Council adopted the following motion:

  "WHEREAS, several state medical societies have found it advantageous to call in as consultants or advisors, representatives of the national Blue Shield Medical Care Plans to meet with interested medical groups; therefore be it

  "RESOLVED: that representatives of Blue Shield Medical Care Plans be requested to meet with The Council of the Michigan State Medical Society or its designated representatives."
- **Report of Delegates to AMA,** June 1959 meeting in Atlantic City, was presented by Chairman Wm. A. Hyland, M.D., of Grand Rapids who complimented the members of the Michigan delegation for their sincere interest and effort. (This report will be published in JMSMS.)
- **Legal Counsel Lester P. Dodd's report** included two opinions on sterilization; question re hospital x-ray department cooperating with other practitioners than doctors of medicine; review of transcript of medical testimony in a certain murder trial in Michigan in which several doctors of medicine participated.
- **The proposed quarterly report** to the seated MSMS Delegates, to be sent as per instructions of 1958 House, was approved by the Executive Committee; this included statement re development of contract for over-65 age group.

(Continued on Page 1208)



in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

Subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

Precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.

SCHERING CORPORATION • BLOOMFIELD, N. J.

SQ-J-64B

Schering

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 1204)

- **Appeal from suspension** by Wayne County Medical Society physician was referred to the MSMS Ethics Committee, in conformance with the Bylaws.

- **AMA President Louis M. Orr, M.D.,** of Orlando, Florida, is to be invited to attend the MSMS Annual Session in Grand Rapids, specifically, on Officers Night Dinner of September 30, 1959. Doctor Hyland was requested to invite Doctor Orr.

- **Various requests** (six) for MSMS printed Roster and use of the Addressograph were reviewed and authorized.

- **A total of 3,067 MSMS biographical questionnaires (I.B.M.)** had been returned by MSMS members, as of June 22, 1959.

- **Mutual Benefit Life Insurance Company of New Jersey,** carrier for the MSMS Group Life Plan, reported payment of death claim to the heirs of a Flint physician.

- **Appointments:** (A) Secretary D. Bruce Wiley, M.D., was nominated to fill the vacancy created by Doctor Foster's death, on Michigan Hospital Service's Medical Advisory Committee; (B) Marcus L. Plant, LL.B., was appointed by the President to the Committee to Review Problems of Medical Professional Liability, in accordance with request of Chairman C. E. Umphrey, M.D., Detroit. (C) Secretary Wiley and Mr. Herbert A. Auer of the Executive Office Staff, were authorized to attend the State Medical Journal Conference in Chicago, October 26-27 (Editor Wilfrid Haughey, M.D., attends as SMJAB guest.) (D) R. W. Teed, M.D., Ann Arbor, Chairman of the MSMS Public Relations Committee, and the usual staff were authorized to attend the AMA Public Relations Working Conference in Chicago, August 20-21. (E) Secretary Wiley was appointed to serve as a member of the Penson Trust of the State Society, to fill the vacancy occasioned by the death of Doctor Foster.

- **Committee Reports.**—The following Committee reports were given consideration: (1) Advisory Committee to MSMAS, meeting of March 22; (2) Iodized Salt Committee, March 25; (3) Venereal Disease Control Committee, March 26; (4) National Defense Committee, April 1; (5) Permanent Advisory Committee on Fees, meetings of April 7 and June 2; (6) Committee to Arrange Officers Night Dinner Dance, April 8; (7) Rheumatic Fever Control Committee, April 15—the Executive Committee of The Council instructed that the Michigan Heart Association be notified that MSMS is willing to accept the appointment of a new Rheumatic Fever Coordinator if he will serve in the same relationship to MSMS as did the previous coordinator; (8) Liaison with Michigan Chapter, Health Insurance Council. March 29; (9) Committee on Scientific Exhibits for 1959 Annual Session, June 24; (10) Tuberculosis Control Committee, May 13; (11) Maternal Health Committee, May 14; (12) Medical Care Insurance Committee, May 19; (13) Four meetings of Councilor District Medical Care Insurance Committees in various Districts, Nos. 15, 10, 11, 6; (14) Committee on Review of Medical Professional Liability, May 27; (15) Scientific Radio Committee, June 4; (16) Postgraduate Medical Education Committee, June 17; (17) Geriatrics Committee, June 22.

  In addition, the following minutes of committees of other organizations, ancillary to the Michigan State Medical Society or to which MSMS sends official representatives, were presented:

  (1) Michigan State Medical Assistants Executive Board, meetings of February 22 and April 11; (2) Medical Advisory Committee to Michigan Hospital Service, March 18; (3) Medicolegal Problems (a committee of the State Bar of Michigan) March 20 and June 5; (4) Michigan Cancer Coordinating Committee, May 21; (5) Joint Council to Improve Health Care of the Aged, May 27; (6) Executive Committee of the North Central District Blood Bank Clearing House, May 22; (7) Permanent Conference Committee, April 15.

- **A rising vote of thanks** was extended to the hosts of the Executive Committee on this occasion, Dr. and Mrs. B. M. Harris, who tenderd warm hospitality.

INTERESTING STATISTICS

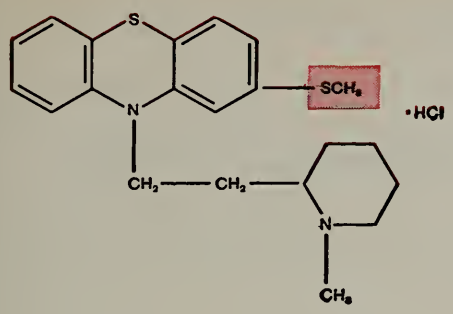
Health Information Foundation reports that between 1932 and 1952, the length of stay in hospitals per patient decreased from 12.8 days to 9.8 days.

The Department of Commerce last year said that drug expenditures constituted only a 16 per cent share of total medical expenditures, as contrasted to 23 per cent in 1942.

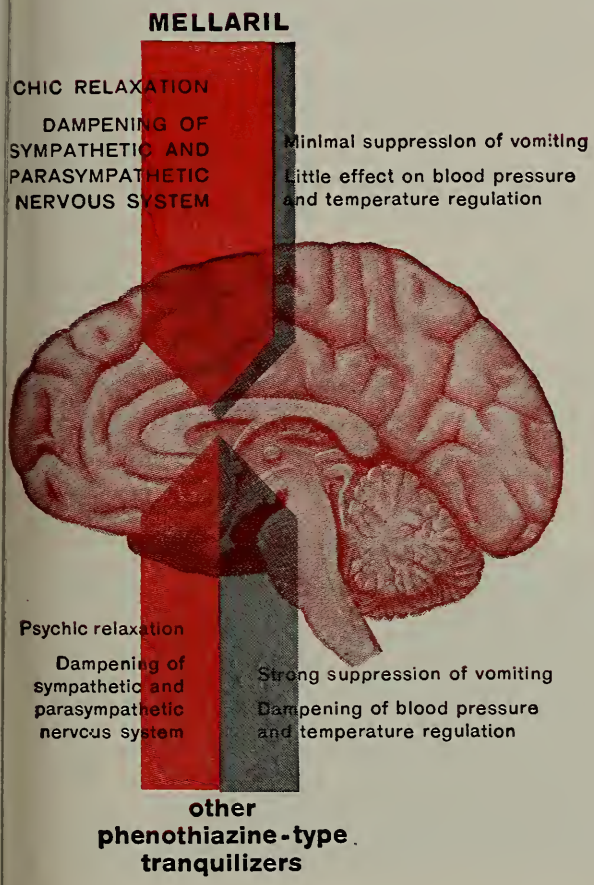
The National Health Education Committee gives these figures for the declines in mortality rates between 1944 and 1954 for the following diseases. This is the period since the introduction of modern chemotherapy:

Influenza	91%
Appendicitis	76%
Rheumatic Fever	73%
Syphilis	63%
Tuberculosis	73%
Pneumonia	43%

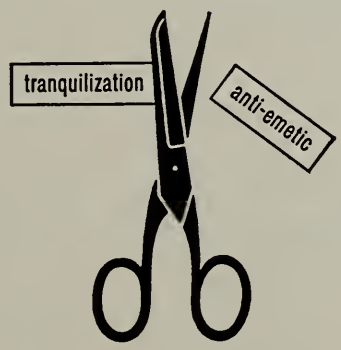
new advance in tranquilization:
greater specificity of tranquilizing action results in fewer side effects



The presence of a thiomethyl radical ($S\text{-}CH_3$) is unique in Mellaril and could be responsible for the relative absence of side effects and greater specificity of psychotherapeutic action. This is shown clinically by:



1 A specificity of action on certain brain sites in contrast to the more generalized or "diffuse" action of other phenothiazines. This is evidenced by a lack of appreciable anti-emetic effect.



2 Less "spill-over" action to other brain areas — hence, absence of undue sedation, drowsiness or autonomic nervous system disturbances.

3 A notable absence of extrapyramidal stimulation.

4 Lack of impairment of patient's normal drive and energy.

5 Virtual freedom from such toxic effects as jaundice, photosensitivity, skin eruptions, blood forming disorders.

INDICATION	USUAL STARTING DOSE	TOTAL DAILY DOSAGE RANGE
ADULTS: Mental and Emotional Disturbances:		
MILD—where anxiety, apprehension and tension are present	10 mg. t.i.d.	20-60 mg.
MODERATE—where agitation exists in psychoneuroses, alcoholism, intractable pain, senility, etc.	25 mg. t.i.d.	50-200 mg.
SEVERE—in agitated psychotic states as schizophrenia, manic depressive, toxic psychoses, etc.:		
Ambulatory	100 mg. t.i.d.	200-400 mg.
Hospitalized	100 mg. t.i.d.	200-800 mg.
CHILDREN: BEHAVIOR PROBLEMS IN CHILDREN	10 mg. t.i.d.	20-40 mg.

ELLARIL Tablets, 10 mg., 25 mg., 100 mg.

)stfeld, A. M.: Scientific Exhibit, American Academy of General Practice, San Francisco, April 6-9, 1959

SANDOZ

PR REPORT

Ingham, Jackson Doctors Join in Medical TV Programs

"Medical Forum" is the name of a new TV series on medical subjects sponsored by the Jackson and Ingham County Medical Societies.

The programs began in June with the co-operation of WILX-TV (Channel 10), Jackson.

The purpose of the series is to provide authentic information about topics of interest in the science of medicine.

The two societies are alternating in the series. Ingham doctors presented the June programs and Jackson physicians developed the July programs. All of the shows will be telecast on Saturday afternoons.

Kenneth H. Johnson, M.D., Lansing, is serving as moderator of the Ingham shows and the Jackson Society series has been moderated by Philip A. Riley, Jr., M.D., and Robert J. Kobs, M.D. Panelists for the program change each week. Participants are selected from lists of Society members who volunteered to co-operate.

Dr. Johnson is Co-ordinator for the Ingham County Medical Society and Robert E. Medlar, M.D., serves in this capacity for the Jackson County Medical Society.

New Radio Show Begun by Oakland CMS

"Stethoscope" is the title of a new 18-week radio series presented by the Oakland County Medical Society in co-operation with station WPON. The program began May 2.

Arrangements for the show were made through the Oakland CMS Public Relations Committee, Everette Gustafson, M.D., chairman. The program is being broadcast Saturdays from 5:45 to 6:00 p.m. as a public service of the Society. Topics will cover the broad area of family health.

Saginaw CMS Honors Scholars at Reception

The Saginaw County Medical Society honored about 200 outstanding Saginaw County high school graduates Sunday, June 7, at a tea at the Bancroft Hotel. Students who excelled academically were invited with their parents. A reception committee was composed of Medical Society members and their wives.

Planning and arrangements were handled by the Public Affairs Committee of the Society. J. E. Manning, M.D., and H. T. Caumartin, M.D., were active in the entire project. Details on how the Scholar's Reception was planned and executed may be obtained by writing to either Dr. Manning, 815 N. Michigan Ave., or Dr. Caumartin, 1537 S. Washington.

Editorial comment on the project published by the *Saginaw News* appears below.

MEDICS SHOW THE WAY

The Saginaw County Medical Society is to be congratulated on its reception honoring outstanding scholars in this year's graduating classes of all Saginaw County high schools.

A reception for them took place Sunday afternoon at the Bancroft, with the doctors as hosts. This is the first time any organization outside of the schools has singled out the top scholastic seniors for such an honor.

The brawny and speedy athletes of the high schools, it seems, are being honored at the close of every sports season. Not that we begrudge the athletes the recognition given them; rather that we deplore the lack of recognition heretofore accorded the best scholars. After all, learning should be the first objective of students, not athletic prowess.

. . . The doctors of Saginaw County realized this, and, for the first time, they did something about it by according the recognition at this Sunday reception.

Other professional and industrial groups in Saginaw would do well to emulate the Medical Society and to plan some sort of recognition for future outstanding students.

Pamphlets of the Month

This month, for your reception room, the Public Relations Library has three pamphlets available in quantity. Each pamphlet describes the AMA and services of organized medicine to the public. The titles are: "The Amazing Story," "On Guard," and "AMA in Action."

To obtain copies, write MSMS Public Relations Library, P.O. Box 539, Lansing 3, Michigan.

Doctors Visit Capitol

The road to Lansing has had much traffic this legislative session as doctors from all parts of Michigan visited their State Senators and Representatives in the Capitol chambers.

With so many vital issues at stake, physician interest is running high. Legislators feel flattered when a constituent from their district takes time off from his busy practice to sit with him during an afternoon session or dine with him in the evening.

Doctors then have an opportunity to discuss health matters and the problems facing the state.

Invitations to county medical society officers and members have been extended by the MSMS Legislative Committee.

Clinical findings in 900 patients show the selective antihypertensive action of Singoserp

IN 735 PATIENTS, BLOOD PRESSURE FELL AN AVERAGE OF 30.7 mm. Hg:

- more than half of these patients suffered from **moderate to severe hypertension**
- more than half of the cases involved hypertension of at least 6 years' standing, with **many histories of up to 20 years' duration**

THE SIDE-EFFECTS PROBLEM WAS MINIMIZED IN MOST PATIENTS:

Chart shows gratifyingly low incidence of side effects in 233 patients given Singoserp with no other antihypertensive medication

Side Effect	Number	Per Cent
Lethargy	7	2.9
Headache	6	2.5
Gastrointestinal upset	3	1.2
Vertigo	2	0.8
Nasal congestion	1	0.4

DOSAGE: Initially, 1 to 2 tablets (1 to 2 mg.) daily.
SUPPLIED: Singoserp *Tablets*, 1 mg. (white, scored); bottles of 100.
Samples available on request. Write to CIBA, Box 277, Summit, N.J.

Singoserp®
(syrosingopine CIBA)

CIBA
SUMMIT, N.J.

2/2657MK

remember
Serpasil®
(reserpine CIBA)
for the anxious hypertensive with or without tachycardia

a major improvement in rauwolfia

a major advance in antihypertensive therapy

Say you saw it in the Journal of the Michigan State Medical Society

Seal of Assurance Plan

Third Quarterly Report

The 1958 House of Delegates instructed that quarterly reports be sent to House members informing them on the progress made in the continuing development of the Seal of Assurance Plan. This is the third report.

1. *Participation in the MSMS Seal of Assurance Plan.*—Since the March 31 quarterly report there has been a net gain of 125 signed enrollment Authorizations received in the MSMS headquarters, bringing the total number of participating physicians to 4,419.

2. *Development of Contract for Over-Sixty-Five Age Group.*—On June 24, the Executive Committee of The Council approved a report of the Medical Care Insurance Committee recommending MSMS policy toward the medical care coverage of senior citizens. The MSMS action was based on the recommendation of the AMA which urged all state medical societies to take positive action on this matter. The official MSMS statement appears below.

3. *Revised Uniform Fee Schedule for Governmental Welfare Agencies.*—The new Michigan State Medical Society Uniform Fee Schedule for Governmental Welfare Agencies has been approved by The Council. The fee schedule is an augmented version of the Plan-A ($2,500) schedule. New relative values for items contained in the old uniform fee schedule (but not listed as benefits under Plan A) were developed by the Relative Value Study Committee. This procedure was necessary for items such as house calls, mileage charges, disability examinations, etc. The revised fee schedule is one suggested for adoption by county medical societies in agreements with local welfare or governmental agencies.

Printing will begin immediately after new code numbers have been assigned to some new items. Distribution to all county societies is expected within sixty days.

4. *Councilor District Medical Care Insurance Committees.*—Information concerning the readiness of local CDMCI committees to consider appropriate matters has been distributed for announcement at county society meetings and for inclusion in all society bulletins. All but two committees are past the organization stage. Several matters have been referred to committees in the larger councilor districts. Two CDMCIC's already have held their second meetings. Others will be scheduled as agendae develop. A secretary to the Committee, Mr. Herbert Auer, has been assigned, who will aid the chairman with details and cover meetings in the local areas. A report of committee actions will be distributed to all members of CDMCIC's as they are approved by The Council.

5. *Michigan Relative Value Study.*—Last month, specialty society representatives to the Relative Value Study Committee, chairmanned by Luther R. Leader, M.D., Detroit, received a progress report on the development of the Study. These representatives will be called upon for consultation upon completion of the survey.

At its last meeting, the RVS Committee approved the final draft of a tentative questionnaire, authorized contact to be made with a qualified research consultant, and urged an early interview with the consultant so that the Study may proceed promptly with the aid of his professional advice to develop a final questionnaire and determine upon methods of administering the study.

6. *Study of Alternative Methods of Payment to Physicians.*—According to instruction of the 1958 House of Delegates, the MCIC is continuing its study of alternative methods of payment to physicians with the help of MSMS Legal Counsel. A report will be presented to the House of Delegates, September 28-29.

7. *Extension of Conversion Deadline.*—Considerable progress has been made by Blue Cross-Blue Shield in converting groups with old Michigan Medical Service contracts to the new M-75 program. However, there are still many offering presentations to be made and it will be impossible for the Blue Cross-Blue Shield Enrollment Department staff to visit all groups and explain the more complicated details of M-75 prior to the present conversion deadline. Therefore, MSMS has approved the extension of the M-75 conversion deadline to December, 1960.

Report on Medical Care Coverage for the Aged

The Medical Care Insurance Committee recommends that the Michigan State Medical Society approve a plan to provide medical surgical protection for persons over sixty-five with modest and low incomes.

The plan incorporates three major proposals:

1. That the Michigan Medical Service (Blue Shield) offer its contracts for the first time to persons over 65.
2. That the contract subscription rates be based on fee charges by doctors which are about

(Continued on Page 1224)



now
in

POCKET-SIZE

new
50 gram

METI-DERM Aerosol

smaller, portable container
topical "Meti" steroid relief in a pocket-size dispenser that patients can carry with them

savings to patients
the advantages of topical "Meti" steroid therapy at a price comparable to many nonsteroid preparations

least wasteful
supplies sufficient medication for average short-term therapy at lower initial cost

quick relief
for poison ivy dermatitis, summer exacerbations of skin allergies

Schering

METI-DERM Aerosol—
50 Gm. container—16.6 mg. prednisolone.
150 Gm. container—50 mg. prednisolone.

METI-DERM with Neomycin Aerosol—
50 Gm. container—16.6 prednisolone and 16.6 mg. neomycin sulfate.
150 Gm. container—50 mg. prednisolone and 50 mg. neomycin sulfate.

METI-DERM,® brand of prednisolone topical.
Meti,® brand of corticosteroids.

SCHERING CORPORATION · BLOOMFIELD, NEW JERSEY

S-185

Report on Medical Care Coverage for the Aged

(Continued from Page 1222)

30 per cent below the average fees in Michigan, and

3. That all the present service benefits offered by Blue Shield be retained, even though medical care is more costly for older persons.

The Committee has been studying the question of medical-surgical care for the elderly for the past six months. The assignment to study the matter and to make recommendations was made by the MSMS Executive Committee of The Council in December, 1958. This occurred only six days after the American Medical Association requested all state medical societies to expedite a voluntary health insurance program for people over 65,

Specifically, the Committee recommends that Michigan Medical Service be urged to make available a low-income (2,500) contract, similar to the M-75 "Plan A" contract, to persons over 65 who may be eligible, and to do so at the lowest possible subscription rate.

The "Plan A" contract of Blue Shield is for persons with incomes of $2,500 or less.

Fundamental to the entire proposal is the request that Blue Shield now remove its present limitation on accepting new subscribers who have passed age 65.

It is estimated that about 650,000 Michigan citizens are over 65. Approximately half of this number are either covered or still employed.

Since 1940, when Blue Shield was organized, all persons terminating employment with an enrolled group could continue with Blue Shield. About 20,000 are in this group now.

Since 1945, the Blue Shield has accepted applications from persons under 65 during its annual non-group campaigns and these persons may continue in the group after age 65. There are about 19,000 in this category.

Since 1946, retirees have been permitted to have Blue Shield payments deducted from company pension checks. This method is practiced by more than 1,000 employers. A sampling indicates that there are about 110,000 retirees in this group; most but not all of them are age 65 or over.

The Committee recommends that the senior citizens be accepted by Bue Shield as non-group subscribers. Blue Shield has both non-group subscribers and group subscribers who are associated with business, industries, associations and other classifications which hold group policies.

Blue Shield has a present practice of opening enrollments each fall for individual Michigan residents under 65 so they can obtain medical care coverage in the non-group category.

The "Plan A" coverage which the Committee recommends has a premium based on fees which are about 30 per cent less than the mean fee charged in Michigan. (The Committee reports that Plan A fees represent 71.57 per cent of the mean fees charged by Michigan surgeons, according to a study of the Society of Actuaries. While studies are not available for other services in the Plan A contract, the Committee believes that a related experience would be true.)

In its approach to the question, the Medical Care Insurance Committee early went on record opposing any approach that would result in lessened benefits. Committee members recognized that medical needs of the older people certainly would not be less and that many of the medical problems would involve more costly care—this by nature of the surgical care and the increase in chronic illness care.

In making this stand, the committee action reinforced the MSMS "Statement of Principles on Prepaid Medical Care Coverage" adopted by MSMS in September, 1957. The Principles, in general, prescribe service. Any alteration of this benefit program, the Committee agreed, would be in violation of the Statement of Principles.

The Medical Care Insurance Committee, in its recommendation, recognizes that "only Michigan Medical Service, by actuarial study, can set the premium rate for Plan A service contract to those 65 and older."

BETTER HEALTH AT A LOWER COST

The real cost of medication has actually decreased during the inflationary surge of the past thirty years, despite the fact that the dollar price of the average prescription has risen along with all other commodities, according to an analysis conducted by the Health News Institute.

While the average prescription cost Americans only 85 cents in 1929, the American factory worker had to work more than ninety minutes at prevailing wage rates to pay for it. Last year, on the other hand, the average prescription, according to a survey by the *American Druggist* magazine, cost $3.08. Yet its real cost in terms of working time was only eighty-six minutes.

Another trade publication, *Drug Topics,* using a different base figure, estimated that the average prescription cost only $2.78 in 1958. At that price, it took the factory worker only seventy-eight minutes of working time to pay for it . . . a drop of about 14 per cent since 1929. In 1946, for example, penicillin cost $4 per million units. By 1956, the price had dropped to only 14 cents per million units.

The roll of diseases checked by modern medicines at a lower real cost than the palliatives of the 1920's is impressive. Such one-time child killers as diphtheria, whooping cough, scarlet fever and measles killed more than 16,000 children under the age of fourteen in 1930, according to the U. S. Public Health Service. In 1956, these childhood diseases took the lives of only about 900 children.

In 1930, more than 140 people out of every 100,000 died of pneumonia and influenza. In 1956, thanks largely to the introduction of antibiotics and sulfa drugs, the figure had dropped to twenty-eight people out of every 100,000. Tuberculosis, once a disease that ravaged the earth, has been largely checked, at least in the United States, by new pharmaceuticals.



...x-tra value x-ray supplies

there's no delay the G.E. way

Dealing with General Electric is like owning your own complete warehouse of x-ray supplies. You get fast action on every order from any of 68 strategically located factory-operated offices.

No need for "scatter-buying" from several different sources. Get everything you need by "shopping" the complete selection of products listed in the G-E X-Ray Supply and Accessory Catalog.

For complete details contact your G-E X-Ray representative listed below.

Progress Is Our Most Important Product

GENERAL ELECTRIC



EXAMPLE:

Continuous cash savings — with G-E SUPERMIX® film processing chemicals, today's *lowest-priced* quality solutions. Convenience packaged, too, in tough, knock-about plastic containers—developer, fixer, refresher and fixer-neutralizer in graduated polyethylene bottles that mix a gallon. (And so *lightweight* they're a joy to handle.)

DIRECT FACTORY BRANCHES

DETROIT
18801 W. 7 Mile Rd. • KEnwood 7-6300

DULUTH
928 E. 2nd St. • RAndolph 4-8648

RESIDENT REPRESENTATIVES

FLINT
E. F. PATTON, 1202 Milbourne • FLint 5-0842

GREEN BAY
J. J. VICTOR, 1242 S. Quincy St. • HEmlock 5-5742

JACKSON
E. J. RHINEHART, 231 N. Wisner St. • STate 4-1986

EAST GRAND RAPIDS
J. E. TIPPING, 1044 Keneberry Way, S.E. • GLendale 2-5283

J. R. Heidenreich and W. H. Huron Honored by Upper Peninsula Medical Society

The Upper Peninsula Medical Society, meeting in its 66th Annual Session in June, elected John R. Heidenreich, M.D., Daggett, President-elect. Dr. Heidenreich will succeed Society President William A. LeMire, M.D., at next summer's annual meeting in Escanaba.

care were discussed during the two-day meeting by ten of the top clinicians of the country: Edward L. Davis, M.D., Chicago; C. H. Hodgson, M.D., Mayo Clinic; Earl G. M. Kreig, M.D., Detroit; Conrad Lam, M.D., Henry Ford Hospital; Harrison L. McLaughlin, M.D., Columbia University;



Upper Peninsula Physician Honored

W. H. Huron, M.D., Iron Mountain, receives congratulations of MSMS President G. B. Saltonstall, M.D. *(right)* and Dickinson-Iron County Medical Society President William R. Gladstone, Jr., M.D. *(left)* following testimonial dinner honoring him during the 66th Annual Session of the Upper Peninsula Medical Society at Land O' Lakes June 19.

In surprise ceremonies during the Session's Annual Banquet, W. H. Huron, M.D., Iron Mountain, was honored by his colleagues in recognition of his many years of service to the medical profession, ten years as Delegate to the A.M.A., ten years as a Councilor to MSMS and membership on the Blue Shield Board of Directors almost continuously since its inception. Diners gave Dr. Huron a standing ovation as Dickinson-Iron CMS President William R. Gladstone, Jr., M.D., presented him with a gift camera.

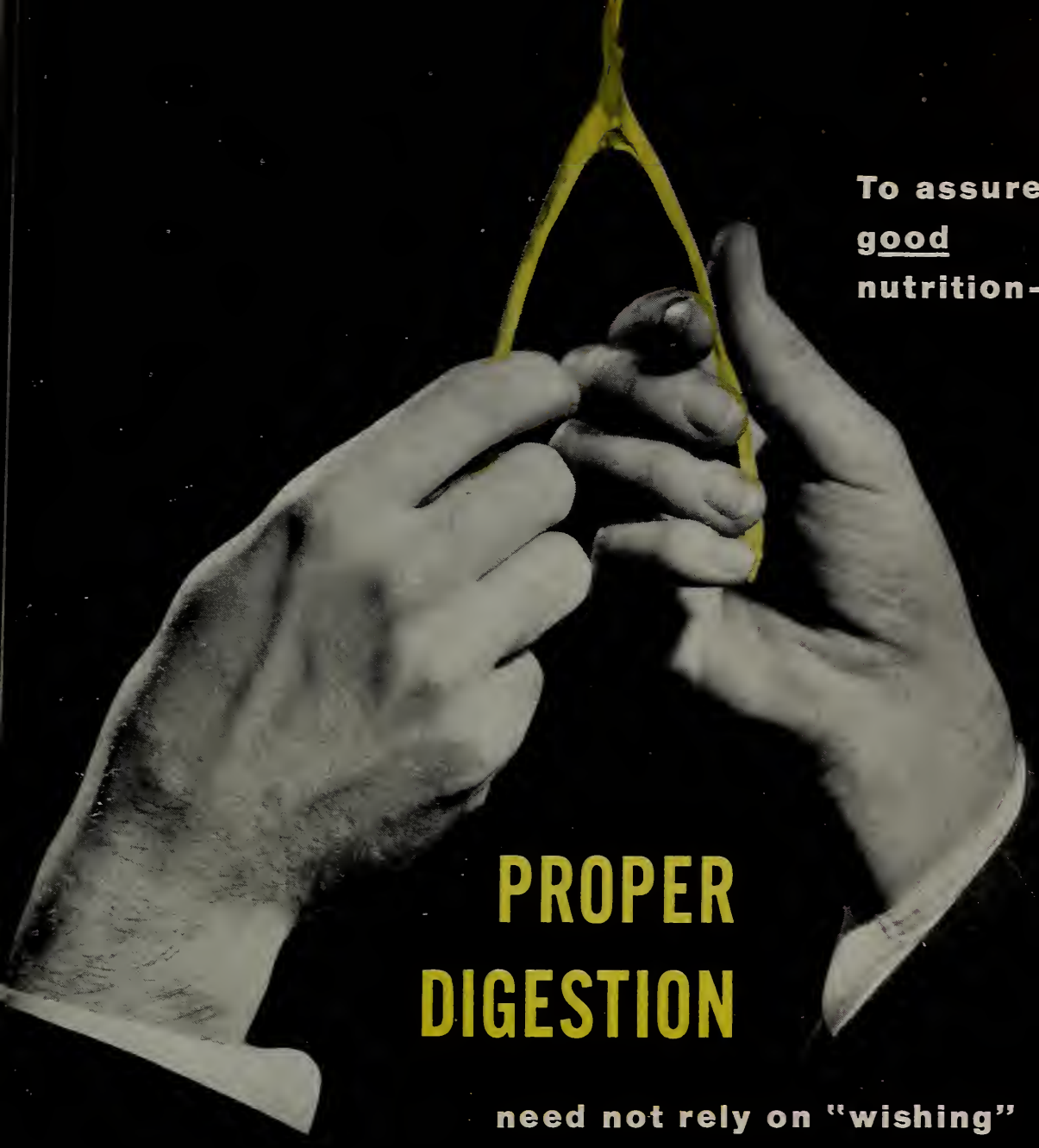
Long recognized as one of the outstanding clinical meetings of the midwest, this year's Annual Session of the Upper Peninsula Medical Society drew more than 200 registrants to its postgraduate "refresher course" on June 19-20 at Land O' Lakes, Wisconsin. Host for the meeting was the Dickinson-Iron County Medical Society, L. E. Irvine, M.D., President.

The latest advances in medical and surgical

Grover C. Penberthy, M.D., Detroit; J. M. Riddell, M.D., University of Texas, Fort Worth; H. W. Schneider, M.D., Chicago; T. W. Thompson, M.D., Newberry State Hospital; and John W. Towey, M.D., Pinecrest T. B. Sanatorium, Powers.

Featured speaker of the annual banquet was John K. Ormond, M.D., Pontiac urologist. who told of "India Through a Medical Window." Although once retired from active practice, Dr. Ormond went to Asia under the auspices of the church and practiced and taught medicine there for three years.

In special tribute to the memory of the late L. Fernald Foster, M.D., Secretary of MSMS, for twenty-three years, the Upper Peninsula doctors voted unanimously to raise a special contribution for the Foster Fund for Medical Education, naming Councilor T. P. Wickliffe, M.D., as Chairman of the subscription committee.



To assure **good** nutrition—

PROPER DIGESTION

need not rely on "wishing"

Each double-layered Entozyme tablet contains:

Pepsin, N.F. ..... 250 mg.
—released in the stomach from gastric-soluble outer coating of tablet.

Pancreatin, U.S.P. ..... 300 mg.

Bile Salts ..... 150 mg.
—released in the small intestine from enteric-coated inner core.

A. H. ROBINS CO., INC.
Richmond 20, Virginia
Ethical Pharmaceuticals of Merit since 1878

As a comprehensive supplement to deficient natural secretion of digestive enzymes, particularly in older patients, ENTOZYME effectively improves nutrition by bridging the gap between adequate ingestion and proper digestion. Among patients of all ages, it has proved helpful in chronic cholecystitis, post-cholecystectomy syndrome, subtotal gastrectomy, pancreatitis, dyspepsia, food intolerance, flatulence, nausea and chronic nutritional disturbances.

For comprehensive digestive enzyme replacement—

ENTOZYME®

Robins

The Senior Citizen

The aging citizen is being studied, considered and made the topic of increasing numbers of organizations, medical, political and economic.

Major Issues of Aging

Drs. Edward L. and Walter M. Bortz, authors of an article in the July issue of *GP* magazine, point out that nature seems to place a higher value on the female of the species. By the time human life expectancy hits 100 years, there will be five women for every two men.

The doctors add that the female body "appears to be more complex, especially in its glandular equipment. The female body usually requires more repair work. However, while the female body will bend, the male body will break.

Also, the male body more quickly loses its capacity to reproduce. The authors mention a recent report from England, telling about a woman in a small village who became pregnant at age seventy-five. They also mention a report from South Africa concerning a fifty-one-year-old woman who had quadruplets, three boys and a girl.

The article, entitled "Major Issues of Aging," stresses that the cells in the human body are in "a state of perpetual reorganization. The old man is not the same individual he was in his youth, for the material of which he is composed is continuously being replaced by new material molded into the same shape."

The doctors also list the ten leading causes of death in 1900 and 1957. Tuberculosis, ranked first in 1900, has since slipped to tenth. Three leading causes, at the turn of the century, are no longer in the top ten (diarrhea and enteritis, cerebral hemorrhage and bronchitis).

Conference on Aging

Age Identification.—There is more fact than fancy behind the old saying, "you're only as old as you feel."

This was reported June 22, 1959 at The University of Michigan's twelfth annual Conference on Aging by Bernard S. Phillips, assistant professor of sociology at the University of Illinois.

Individuals who feel "middle aged" instead of "old" after age sixty tend to be better adjusted and better equipped to deal with the shock of retirement, a spouse's death, and continued physical aging, Phillips declared.

He based this conclusion on analysis of interviews with 500 persons in the Kips Bay-Yorkville health district of New York and an additional 468 persons in the Elmira, New York, area.

Feeling old tends to be associated with a variety of negative attitudes, he continued. Compared to those who describe themselves as "middle aged" even after sixty, those who feel "old" are more inclined to agree that the aged should dress conservatively, that their friends should be old, that interest in sex is undignified, that aches and pains accompany old age, and that doctors treat the young better than the old. Said Dr. Phillips:

"What seems to be happening is that individuals identifying themselves as old thereby tend to accept a low cultural evaluation of themselves. This evaluation may be avoided to an extent by those who still feel middle aged."

Social Security.—The subject of Social Security and its proposed changes was a topic of discussion at the Conference on Aging, Prof. Wilbur J. Cohen of the School of Social Work being the key speaker. He was active in Washington during the years of the proposed Wagner-Murray-Dingell bills, as many will remember. He proposed:

"Average monthly benefits from social security should be increased by 50 per cent during the next decade.

"Total production of goods and services should also climb by 50 per cent in this period. We will have the resources necessary to treat our aged more generously and more widely.

Hospital and Nursing Insurance.—"Substantial protection in this area can be provided for a total of about two-thirds of one per cent of taxable payrolls on a level-premium basis.

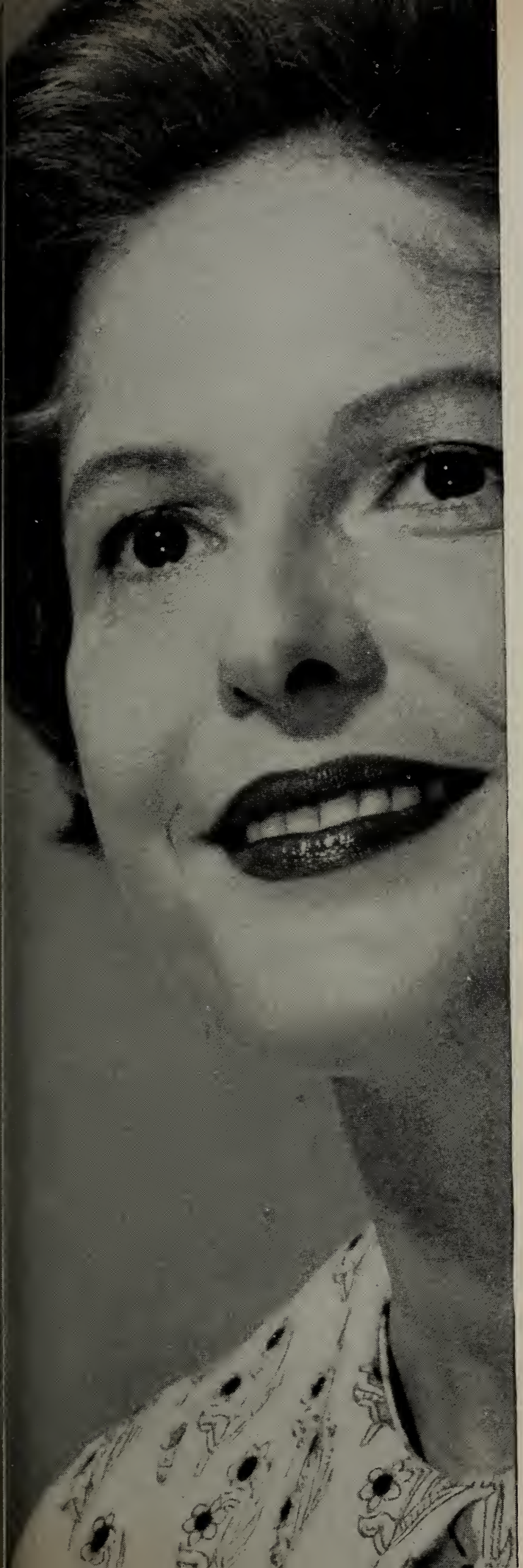
"To keep within a limited cost, two major types of protection could be provided initially: a limited duration of hospital care of perhaps 30, 50 or 60 days a year, and a limited amount of diagnostic services and essential nursing service, including visiting nursing service in the home."

Monthly Benefits.—"Increase benefits to an average of about $100 a month through an immediate increase of 5 to 10 per cent and another 10 to 15 per cent increase in two to four years. Wages subject to social security taxes should be increased from the present level of $4,800 annually to $6,000 within the next two years and to $7,200 or $9,000 about two or three years later. Maximum family benefits for those with several children should be increased automatically from $254 to about $350 or $400 as the maximum earnings level and maximum benefit increases.

Disability Insurance.—"At present, these benefits are paid only after age fifty. This limitation should be removed. Costs of rehabilitating disabled persons should be paid from disability funds (a separate account). Both these changes would aid both disabled individuals and taxpayers, who now pay these costs indirectly through public assistance and vocational rehabilitation programs."

Political Issues.—America's elderly persons now rank second only to the farm bloc in political persuasiveness, Dean Fedele F. Fauri of The University of Michigan School of Social Work declared at the final session June 24. The political effectiveness of the elderly comes in part from increased

(Continued on Page 1265)



Attention at Pfizer Research was then directed to a new drug that would overcome this disadvantage. NIAMID significantly raises the cerebral level of *both* serotonin and norepinephrine under experimental conditions.

The dramatic discovery of NIAMID now makes available an extremely effective, safe antidepressant for the successful treatment of a full range of depressive states.

Precautions

Side effects are most often minor and mild manifestations of central nervous system stimulation, modifiable by reduction in dosage; these may take the form of restlessness, insomnia, headache, weakness, vertigo, dry mouth, and perspiration. Care should be taken when NIAMID is used with chlorothiazide compounds, since hypotensive effects have been noted in some patients receiving combined therapy—even though hypotension has rarely been noted with NIAMID alone. There has been no evidence of liver damage in patients on NIAMID; however, in patients who have any history of liver disease, the possibility of hepatic reactions should be kept in mind.

Dosage and Administration

Start with 75 mg. daily in single or divided doses. After a week or more, revise the daily dosage upward or downward, depending upon the response and tolerance, in steps of one or one-half 25 mg. tablet. Once satisfactory response has been attained, the dosage of NIAMID may be reduced gradually to the maintenance level.

The therapeutic action of NIAMID is gradual, not immediate. Many patients respond within a few days, others satisfactorily in 7 to 14 days. Some patients, particularly chronically depressed or regressed psychotics, may need substantially higher dosages (as much as 200 mg. daily has been used) and prolonged administration before responses are achieved.

Supply

NIAMID is available in: 25 mg., pink, scored tablets in bottles of 100; and 100 mg., orange, scored tablets in bottles of 100.

References

Complete bibliography and Professional Information Booklet are available on request.

*TRADEMARK FOR BRAND OF NIALAMIDE

NIAMID
the mood brightener

New Dean at University of Michigan



Dr. Hubbard

Dr. William N. Hubbard, Jr., associate dean of the New York University College of Medicine, has been appointed dean of The University of Michigan Medical School, according to announcement made by President Harlan Hatcher, July 1, 1959. The new dean succeeds Dr. Albert C. Furstenberg who has headed the Medical School since 1935 and who started his retirement furlough July 1.

Dr. Hubbard's appointment is effective immediately. He is the fifth person to carry the title of "dean" and the eighth to serve as administrative head of the University of Michigan Medical School since it was founded in 1850. Both he and the late Victor Vaughan, the first dean, were thirty-nine years old when they assumed office.

President Hatcher said the selection of Dr. Hubbard followed an intensive survey of potential candidates by a faculty committee in the Medical School. The committee was unanimous in its recommendation that Dr. Hubbard be selected.

"The University of Michigan feels fortunate in being able to select Dr. Hubbard to assume the deanship at a time when the Medical School is confronted with all of the new and trying problems facing medical education everywhere," Dr. Hatcher said.

"The enrollment already is the largest in the nation, the Medical School is in the midst of the greatest period of expansion of its physical facilities in history and the research program has increased in scope and variety many times over just within the past ten years. We needed a person with the necessary skills, the dedicated labor and the wisdom to continue the great leadership which this school has enjoyed under Dr. Furstenberg's deanship."

Dr. Hubbard was born October 15, 1919 in Fairmont, North Carolina. He received a Bachelor of Arts degree from Columbia University in 1941 and then enrolled in the University of North Carolina School of Medicine in 1941. Dr. Hubbard transferred to New York University College of Medicine in 1943 and received the Doctor of Medicine degree in 1944.

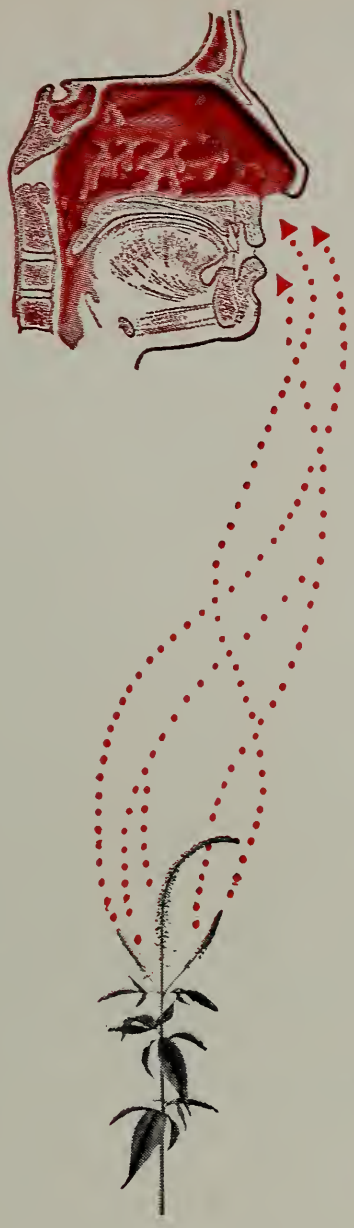
He continued specialty training in internal medicine until 1950 at Bellevue Hospital in New York City. In 1949-50, Dr. Hubbard joined the faculty at New York University College of Medicine and was named as The John Wyckoff Fellow in Medicine. In 1951, he was appointed assistant dean and since July 1, 1953, he has been assistant professor of medicine and associate dean.

Dr. Hubbard is a member of the Harvey Society, the New York Academy of Medicine, Society of Alumni of Bellevue Hospital, the New York University chapter of Sigma Xi, Alpha Omega Alpha and is an associate of the American College of Physicians. He is licensed to practice medicine in New York and North Carolina.

Dr. Hubbard is married and has five children. His wife's name is Elizabeth and his children's, William III (age 11), Michael (age 9), Mary (age 7), Ann (age 3), and Susan (10 months). The family expects to move to Ann Arbor in August.

Medical Meetings and Clinic Days

1959	Event	Location
Autumn	MSMS Postgraduate Extramural Courses	Statewide
Sept. 17	American Cancer Society, Michigan Division, District I Workshop	Battle Creek
Sept. 23	American Cancer Society, Michigan Division, District IV Workshop	Alma
Sept. 24	Michigan Cancer Co-ordinating Committee	Lansing
Sept. 30	American Cancer Society, Michigan Division, District VII Workshop	Gaylord
Sept. 29-Oct. 2	MSMS Ninety-Fourth Annual Session	Grand Rapids
October	Michigan Regional Rural Health Conferences	To Be Announced
Oct. 1	American Cancer Society, Michigan Division, District VI Workshop	Leland
Oct. 13	American Cancer Society, Michigan Division, District V Workshop	Flint
Oct. 15-17	University of Michigan Triennial Medical Alumni Reunion	Ann Arbor
Oct. 21	American Cancer Society, Michigan Division, District III Workshop	Grand Rapids
Oct. 29-31	Divisional Meeting, American Psychiatric Association	Detroit
Nov. 3	American Cancer Society, Michigan Division, District II Workshop	Adrian
Nov. 11-12	Michigan Academy of General Practice Postgraduate Clinic	Detroit



when pollen allergens attack the nose...

Triaminic provides more effective therapy in respiratory allergies because it combines two antihistamines[1,2] with a decongestant.

These antihistamines block the effect of histamine on the nasal and paranasal capillaries, preventing dilation and exudation.[3] *This is not enough;* by the time the physician is called on to provide relief, histamine damage is usually present and should be counteracted.

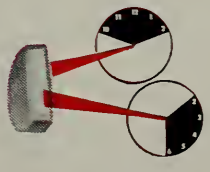
The decongestive action of orally active phenylpropanolamine helps contract the engorged capillaries, reducing congestion and bringing prompt relief from nasal stuffiness, rhinorrhea, sneezing and sinusitis.[4,5]

TRIAMINIC is orally administered, systemically distributed and reaches *all* respiratory membranes, avoiding nose drop addiction and rebound congestion.[6,7] TRIAMINIC can be prescribed for prompt relief in summer allergies, including hay fever.

References: 1. Sheldon, J. M.: Postgrad. Med. **14**:465 (Dec.) 1953. 2. Hubbard, T. F. and Berger, A. J.: Annals Allergy p. 350 (May-June) 1950. 3. Kline, B. S.: J. Allergy **19**:19 (Jan.) 1948. 4. Goodman, L. S. and Gilman, A.: Pharmacol. Basis Ther., Macmillan, New York, 1956, p. 532. 5. Fabricant, N. D.: E.E.N.T. Monthly **37**:460 (July) 1958. 6. Lhotka, F. M.: Illinois M.J. **112**:259 (Dec.) 1957. 7. Farmer, D. F.: Clin. Med. **5**:1183 (Sept.) 1958.

Triaminic®

TRIAMINIC provides around-the-clock freedom from hay fever and other allergic respiratory symptoms with just one tablet q. 6-8 h. because of the special timed-release design.



Each TRIAMINIC timed-release tablet provides:
Phenylpropanolamine HCl.....50 mg.
Pheniramine maleate.....25 mg.
Pyrilamine maleate.....25 mg.

Also available: TRIAMINIC SYRUP for those patients of all ages who prefer a liquid medication. Each 5 ml. teaspoonful is equivalent to ¼ Triaminic Tablet or ½ Triaminic Juvelet. TRIAMINIC JUVELETS provide half the dosage of the Triaminic Tablet with the same timed-release action for prompt and prolonged relief.

STOP *running noses*  *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

Cancer Comment

This column is sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan

CARE OF THE CANCER PATIENT

By Harry M. Nelson, M.D.

When cancer strikes in a home, it can be one of the most devastating of domestic tragedies. Care and service to the cancer patient is not purely medical. The place of the physician and nurse, however, is important. They are aware of the significance of cancer as a cause of death and suffering.

The increased effectiveness in diagnostic and therapeutic techniques has resulted in a growing number of survivors of cancer. Many people who are free of disease must adjust their lives to what can be a seriously devastating experience. The physical and psychological rehabilitation of the cancer patient is a concern which must be given more and more attention. When cancer attacks such organs as the breast, the larynx, the rectum, an arm or a leg—surgical removal of the diseased part brings radical changes in the form and function of the various parts of the body. These changes often bring on, not only difficult, uncomfortable and distasteful physical problems, but also emotionally disturbing ones as well.

There are times in the care of a patient with cancer when it may seem as though the principal duties of the physician are to insure good nursing care and alleviate pain. However, it is well to remember that there are few patients for whom nothing can be done.

This brings up the question as to what is the best method of managing the chronically ill with cancer. No health agency can provide adequate care to the approximately 10,000 people who die each year in this state. There are at all times in Michigan approximately 3,000 terminal cases that require attention. We as physicians want the sufferer to obtain the best possible hospital and home care.

One of the great needs at the present time is more registered and practical nurses. Several of our large, approved hospitals, which have complete radiological, laboratory, medical and surgical facilities for taking care of all types of cancer patients do not have enough personnel for the care of the chronically ill cancer patient who needs institutional care.

Experience throughout the United States indicates that where additional hospital beds must be provided, and nurses are available, there is no reasonable substitute for direct expansion of the present hospitals. For a substitute located at a distance or inconvenient would obviously be unsatisfactory and inhuman. Every discipline in medicine is now involved in the care of the cancer patient. It is no longer a disease that interests only the radiologist or surgeon.

One of the greatest comforts a terminal patient knows is the continuing care and attention by his own doctor. Hospitalizing him in an institution where the doctor makes regular calls on other patients keeps him in a position to receive this continued care. Furthermore, general hospitals make available the proper nursing care and emergency measures necessary for such a patient's comfort and the prolonging of his life.

Competent physicians who have a selected interest in the various categories of disease should be encouraged as scientists to study their special problems through to the end. It seems, then that it is sound planning to provide beds in the present hospitals—the place we can still find so many of our challenging clinical problems—rather than to provide beds in terminal-care hospitals. The trend is away from special hospitals and toward the absorption of all the specialties by the general hospital so that group medical care may be applied on a broad medical basis no matter where the patient happens to be located. It is generally accepted that the care of the acute and the chronically ill must be united in a general hospital on a continuing basis as long as the need for a hospital bed exists. More and more physicians are willing to attend and accept the responsibility of the care of the patient with cancer because many new and hopeful treatments are being made available.

The cancer victim, when hospital care is necessary, should be offered the talents in and facilities of an approved general hospital rather than be isolated as if he had a plague.

However, the patient who can be safely cared for in his home should remain there to allow a more profitable use of beds by those who need them. In some instances a program of home care can be offered by financial subsidy under extension service, through the hospital or a voluntary agency. The burden of care during illness which does not require the highly concentrated hospital facilities is returning in large part to its point of origin, the home. Thus the way to achieve in-

(Continued on Page 1269)

AMA Washington Letter

THE MONTH IN WASHINGTON

President Eisenhower's power of veto has been a powerful weapon in his fight against big spending programs of the Democrats.

His outstanding use of the power so far in this session of Congress was the veto of the Democratic, catch-all $1,375,000,000 housing bill. Mr. Eisenhower said the measure was extravagant and inflationary. He warned that the fight against inflation could not be won "if we add one spending program to another without thought of how they are going to be paid for and invite deficits in times of general prosperity."

The housing bill included three provisions of interest to the medical profession. One provision, endorsed by the American Medical Association, would have authorized Federal Housing Administration guarantees of loans for construction of proprietary nursing homes. The second provision would have authorized direct federal loans for housing for interns and nurses. The third would have authorized both such loans and guarantees for housing for elderly persons.

Mr. Eisenhower objected to direct loans for housing for the aged. But he directed his main attack against the legislation's public housing and urban renewal provisions.

The President also vetoed a wheat price support bill which, he charged, "would probably increase . . . the cost of the present excessively expensive wheat program."

The threat of a veto also caused the Democrats to retreat and cut back their airport construction legislation.

These actions improved prospects for a balanced, or near-balanced, budget in the current fiscal year. Another factor working for a balanced budget is the economic upsurge which means more federal revenue than originally estimated.

But Congress voted more for medical research than the President wanted. However, all of it may not be spent because the President has the authority to hold back part of it.

The Senate voted $481 million and the House, $344 million, for the National Institutes of Health —as against $294 million requested by Mr. Eisenhower. It was mandatory that a House-Senate Conference Committee, in working out a compromise between the House and Senate figures, approve a larger amount than the President requested.

The House Ways and Means Committee held hearings on the controversial Forand bill which would finance medical and hospital care of the aged through the social security system. Witnesses for the medical profession vigorously opposed the legislation. Dr. Leonard Larson, Chairman of the AMA Board of Trustees, and Dr. Frederick C. Swartz, Chairman of the AMA Committee on Aging, presented the AMA's views.

Representatives of various state medical societies either testified or presented statements in opposition to the legislation which would be financed through higher social security taxes and which would cost about $2 billion a year.

On another legislative front, AMA witnesses—Dr. George M. Fister, a member of the AMA Board of Trustees and Chairman of the AMA Council on Legislative Activities, and Dr. Vincent W. Archer, a member of the AMA House of Delegates and the AMA Committee on Federal Medical Services—testified before the Senate Finance Committee in support of a House-approved bill (Keogh-Simpson) that would provide tax deferrals for self-employed persons who invest in qualified pension or retirement plans.

Dr. Fister testified that high taxes and inflated living costs make it "difficult for the self-employed person to set aside adequate funds for retirement without a tax deferment similar to that available for corporate employes."

Experts from 17 nations gave favorable reports on use of live polio virus vaccine at a week's conference sponsored by the World Health Organization and the Pan American Health Organization.

However, the 61 experts conceded in a statement summarizing the conference discussions that problems remain in use of the vaccine which is given orally. Their main concern was with "the very difficult problems in the development control and evaluation of the safety and effectiveness" of the live vaccine. They also recognized that 'the use of a product that spreads beyond those originally vaccinated represents a radical departure from present practices in human preventive medicine."

An advisory committee of the U. S. Public Health Service recommended a fourth shot of Salk polio vaccine as routine for children and adults under 40 years of age. The report also said that Salk vaccine shots could be beneficial for persons over 40 but was "less urgent" be-

(Continued on Page 1244)

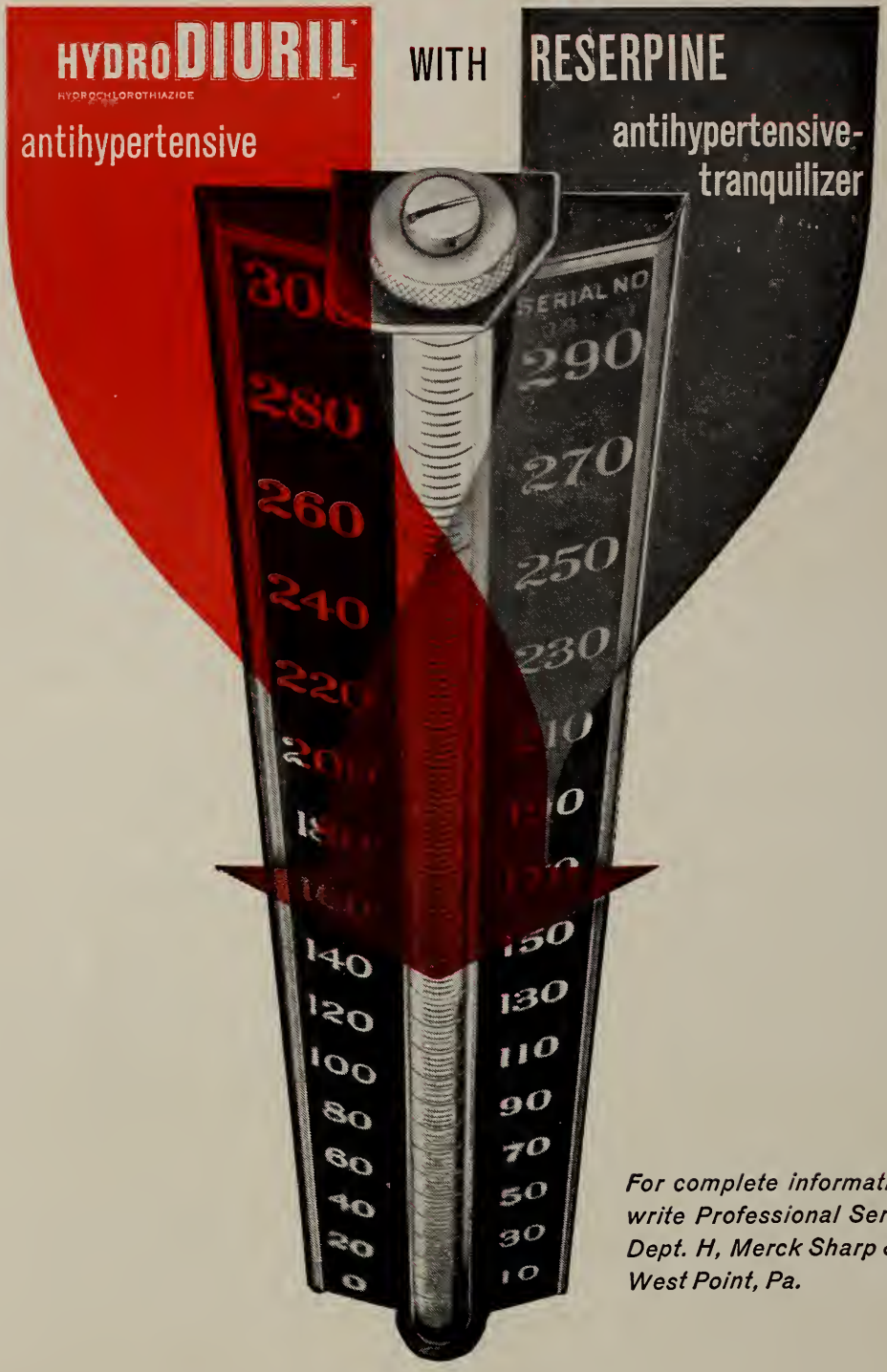
greater antihypertensive effect...fewer side effects

HYDROPRES*

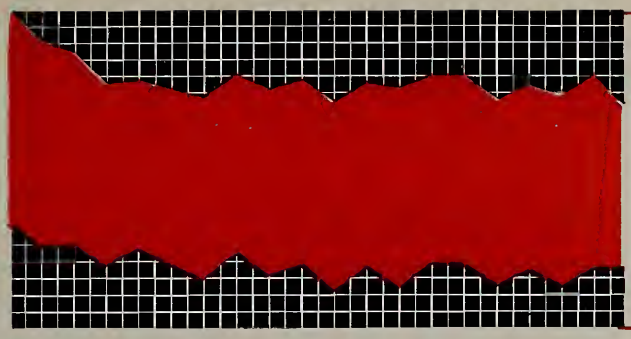
HYDRODIURIL* HYDROCHLOROTHIAZIDE antihypertensive

WITH

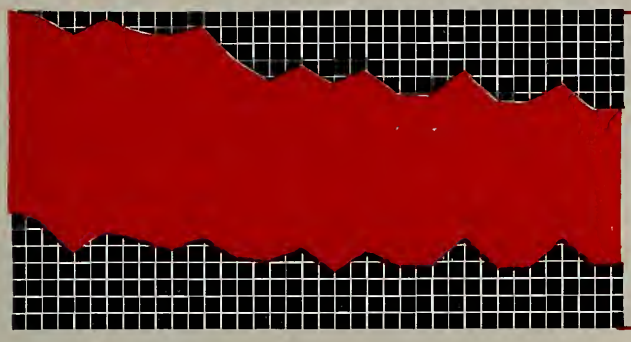
RESERPINE antihypertensive-tranquilizer



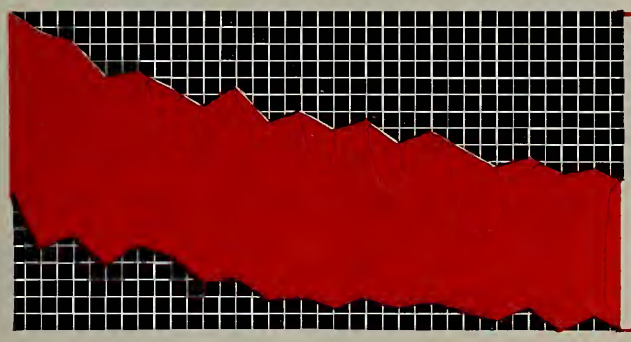
For complete information write Professional Services, Dept. H, Merck Sharp & Dohme, West Point, Pa.



HYDRODIURIL alone



RESERPINE alone



HYDROPRES
much more effective
than either of its
components alone

- Effective by itself in a majority of patients. Provides smooth, more trouble-free management of hypertension.
- Since HYDRODIURIL and reserpine potentiate each other, the required dosage of each is lower when given together as HYDROPRES than when either is given alone.
- HYDROPRES provides the needed and valuable tranquilizing effect of reserpine. Lower dosage may reduce such side effects of reserpine as excessive sedation and depression.
- Arrest or reversal of organic changes of hypertension may occur.
- Headache, dizziness, palpitations and tachycardia are usually promptly relieved. Anginal pain may be reduced in incidence and severity.
- With HYDROPRES, dietary salt may be liberalized.
- Convenient, controlled dosage.

HYDROPRES-25
25 mg. HYDRODIURIL, 0.125 mg. reserpine.
One tablet one to four times a day.

HYDROPRES-50
50 mg. HYDRODIURIL, 0.125 mg. reserpine.
One tablet one or two times a day.

If the patient is receiving ganglion blocking drugs or hydralazine, their dosage must be cut in half when HYDROPRES is added.

MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

*HYDRODIURIL AND HYDROPRES ARE TRADEMARKS OF MERCK & CO., INC.

Editorial Comment

M-75 BLUE SHIELD

We've tried to explain, at least approximately, what the dispute over the M-75 Blue Shield contract is all about.

While some of the arguments against M-75 have been pretty stupid—in certain cases, the result of people reaching too far for additional arguments—we can see valid reasons for wanting some changes.

At the same time, we think we can see around intentions on the part of the other segment of the medical profession which developed the new plan.

There is a continuing demand, at least from some elements of society, for medical prepayment plans which will cover more of the cost. Or even all of it.

The doctors, so often accused of refusing to listen to the voice of progress, heeded the outcry, conducted a very elaborate survey of public opinion, and came up with M-75.

They added diagnostic services, greater X-ray benefits, and more treatments and surgery which will be paid for though the patient is not confined to a hospital.

They also raised the income level at which participating doctors agree to do the work without charges—from $5,000 to $7,500.

We question whether the opposition to M-75 is wholly a matter of dollars and cents. This we feel, because we know that most of the doctors who oppose the plan are so well established professionally that with or without M-75 they will have no difficulty earning good livings.

On the other hand, there are doctors who will suffer somewhat—or in any event, will be under pressure which tends to push them all into a single mold.

This we do not think is either right for them nor good for us.

We, like virtually all of the doctors of our acqaintance, feel that Blue Shield is a fine and useful instrument. We think it is, as yet, far from perfected.

We admit we don't know just how we would perfect it.

But here are our notions of what Blue Shield should accomplish:

● First of all, it should protect the individual from being financially crushed by the truly catastrophic illness.

● Further, since so many of us are inclined to buy what we want, and not save much for troubles we hope won't come, it is quite a convenience to have some dollars taken from our paychecks to pay for the serious but not catastrophic illnesses. To pay for the hospital (Blue Cross) and the large medical and surgical items.

● We think, by all odds, that some way must be evolved to care for the ills of the aged as economically as possible. Again, we don't know how, and we can't see why doctors and hospitals alone should be expected to bear the cost.

● We do *not* hold with the idea that piling *all* medical services into a huge prepayment hopper is a good thing. Saving individuals from crushing expense is one thing; relieving them of all responsibility for the incidental costs of minor ailments and routine examinations is another.

People seem to be able to pay their dental bills because nobody has said it is their "right" to have somebody else set up a "plan."

We don't want the whole system to become a branch of government. Army medical care—while it certainly was efficient for a larger group of young men chosen because they were strong and healthy—gave us all the taste we want of that.

Those are our central thoughts. How Blue Shield is to be altered is a complicated question, but whatever is done, we hope it will be done without losing sight of what we consider the basic purpose.—*Detroit Times,* May 11, 1959.

THE MONTH IN WASHINGTON

(Continued from Page 1241)

cause they had polio less frequently than younger people.

Surgeon General Leroy E. Burney of the Public Health Service also issued an urgent warning that tragic polio outbreaks might occur this year if communities didn't push polio vaccination campaigns.

* * *

The Medical Society of the District of Columbia adopted a relative value scale of fees expressed in units rather than dollars. The basic unit of 1.0 is a routine office visit. The other relative values for medical services are multiples of the basic unit. For example:—an appendectomy, 30 units; allergy skin tests, 2.0 units per 10 tests with a maximum of 15 units for multiple tests; anesthesia, first half-hour or any fraction thereof, 4.0 units.

It is not mandatory that the District Medical Society members charge fees conforming to the relative value scale. It was designed to show the relative value of a physician's services, particularly for health insurance purposes.

The AMA House of Delegates unanimously approved last year the study of relative value scales by state medical societies.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 AUGUST, 1959 NUMBER 8

Adoption of Children

By Ernest H. Watson, M.D.
Ann Arbor, Michigan

THE following basic principles are the foundation of good adoption practices:

1. Every child needs and has the right to be reared by his own natural parents. No child should be unjustly deprived of this right.

2. Similarily, parents have the primary right to the custody and control of the children to whom they have given birth.

3. It is the first obligation of society to make it possible for a child to grow up with his own family and in his own home.

While history bears witness to examples of violation of these basic rights of parents and their children, our civil law and national culture supports and reinforces them for the protection of the individuals concerned, as well as for society as a whole. Parents who are sincerely and industriously striving to provide for the needs of their children in their own homes must be given every opportunity to do so, even if this means financial assistance from public or community resources.

4. Along with the right to custody and control of their children, parents have the responsibility to provide adequately for the emotional, intellectual and physical needs which are necessary for the normal growth and development of children.

Gross neglect of parents to meet these needs, in that degree which is seriously damaging to the child, to normal family life, transfers (within the law) parental right and responsibility to society. When this happens, the primary obligation of society is the welfare of the child.

5. When a child's own parents or parent cannot afford him a good home and he becomes a responsibility of society, the community best fulfills its obligation toward the welfare of such a child by placing him in an adoptive family through organized child welfare agencies.

Social Agency Services

Placements for adoption should be made only by an agency authorized by the State Department of Public Welfare. Such an agency can best offer the services and protection needed by the child, the natural parents and the adoptive applicants. Complete responsibility and acceptability for the emotional and physical welfare of the child as well as for legal implications is assumed by the agency until adoption is completed. Professional qualifications of agency staff working within the standards of the Department of Public Welfare and in conjunction with other professional fields enables the agency to provide best for needs of the child and of natural and adopting parents.

This paper was prepared from the comprehensive report of the Joint Committee on Adoption of Children of the Michigan State Medical Society and the Michigan Branch of the Academy of Pediatrics. Committee members: E. H. Watson, Chairman; Robert Heavenrich, M.D.; Bruce D. Graham, M.D.; R. R. Galpin, M.D.; Robert Rosema, Superintendent, Michigan Children's Institute; Father Hickey, Director, Catholic Social Services, Detroit; Ruth Bowen, Supervisor, Children's Division, Department of Social Welfare; Maxine Virtue, Attorney.

Children for Whom Adoption is Recommended

No child should be denied the opportunity to have a permanent family. Adoption should be considered for any child:

1. Who has been permanently deprived of his own parents.
2. Whose parents are neglectful to that point which deprives a child of a permanent family and home life and when the child is made legally free by the court.
3. Whose parent or parents with full and sufficient reasons have come to the decision of voluntarily relinquishing the child.
4. Who has the capacity to form a relationship with new parents and develop in a family.

Adoption is not recommended for those children:

1. With close family ties whose own parents or relatives can or may be helped to meet their needs.
2. Whose physical or mental condition is such that they require permanent care outside the setting of the family.
3. Who cannot be helped with treatment to accept close relationships.

The Physician's Role in Adoption

Placement and adoption are complicated procedures which require skill, time and co-ordinated efforts of persons of many professions. Alone, any one person cannot adequately conduct the entire procedure.

The physician has direct responsibilities in adoption involving services to the natural parents, the prospective adoptive couple and the child. He also has indirect responsibilities as a consultant to social agencies and hospitals, as an educator, and as a citizen.

Direct Services.—The physician is frequently the first person aware of an impending adoption. He diagnoses or confirms the state of pregnancy. He refers the pregnant woman to an appropriate agency for counsel, and to determine if adoption is the best solution for the natural parent and her child, and to assure good rehabilitation of the mother. The doctor is interested in the physical and mental health of the natural and adoptive parents as well as the follow-up care and guidance given both the unwed parent and adopting parents.

The doctor must advise on the possibility of inherited characteristics. He must evaluate the child to determine adoptability from physical, mental, and genetic standpoint. He must determine also that the adopting parents are suitable physically and emotionally for a child. In most instances the physician will have knowledge that adequate infertility studies and treatment of the the prospective adoptive parents have been made.

Frequently, the physician is the person who has had the longest contact with the adopting parents and child after adoption has been accomplished. He is in an unique position for "anticipatory guidance" and can help the adopting parents resolve their anxieties or feelings of inadequacy, as well as to guide them in the routine problems of growth and development of the child.

Indirect Services to Agency.—Not only does the physician refer the unwed pregnant girl to an agency, but he similarly refers childless couples to agencies where they can apply properly for a child for adoption. The physician should be a consultant to the social agency, advising and interpreting the medical and emotional background of the natural parents, of the health and development of the infant, and of the suitability of the adoptive parents if he has knowledge of them.

As a hospital staff member, he assists in establishing hospital policies which insure provision of adequate medical care for the unmarried pregnant woman and her child. This requires social services as well as antepartum, obstetric, postpartum and follow-up care. The doctor tries to insure dignity and anonymity for the unmarried mother, to encourage a free exchange of ideas with her, to promote her confidence in those trying to help her, and to safeguard the identity of her child and the adopting family.

As an educator, the physician helps to build understanding about the impact of adoption on our society, its magnitude, importance, virtues, problems, and hazards. In this capacity he has contact with medical personnel—medical students, nurses, county medical societies, hospitals, public health staffs. He is often an advisor to other persons and agencies interested in adoptions such as members of the legal profession, probate and family courts, schools and religious organizations, and social workers.

The physician has a further indirect responsibility as a citizen by taking an active role in community activities related to planning for adoptive services. By serving on adoption committees of public and voluntary social agencies he helps to

emphasize the needs of the children, their natural and adoptive parents. And, finally, he can stimulate the public to support these agencies, to promote further research in the process of placement and adoption, and to initiate adequate legislation to guarantee the optimum fulfillment of the principles and practices of adoption.

Services to Natural Parents

The natural parents have the right to custody and control of children born to them but when the parents for any reason are unable to provide a home (for reasons of illegitimacy, broken homes, et cetera) these rights should yield to the child's welfare. Services should be available to the child's parents (generally the mother) in relation to their physical, material and emotional needs. The placement agency has a responsibility to assure natural parents of protection from hurried decisions to give up a child under strain and anxiety, and to prepare them for relinquishment when they are emotionally ready to give up the child. The agency also has the responsibility to secure full information, social and medical, on both parents and the child, and to preserve confidentialness and provide adequate protection at all times to the placed child. The agency can provide the unmarried mother a continuous relationship with one social worker during the prenatal and postnatal period. Such service helps her to arrive at a decision regarding her child without pressure and with recognition of her right to make her own decision. If she decides that adoption is not preferred, then help in examining other available community services in the light of her needs and those of the child are offered.

The natural parents are responsible for the child until relinquishment has been legally accepted. Psychologically, it is considered preferable that they pay for shelter, medical care and expenses at birth, but the necessary services should not be denied because of inability to provide for them. In many areas the necessary services for unwed mothers are still inadequate. There is a problem with regard to residence and often the mother is not eligible for help through public agencies. Some of the private or volunteer agencies are ready to offer help to all unmarried mothers regardless of residence and it is hoped that ultimately this will be the practice of all voluntary and tax supported agencies involved in adoption.

Help should be available to the natural father with regard to any emotional problems or special needs when he is interested and wishes such help. The natural father may be helpful in work with the mother in planning for the child and in giving family history which may be of importance in evaluating the child's hereditary background.

It must be stressed that a child is not legally free for adoption unless the parents have voluntarily relinquished their rights to an authorized agency, or after the child is separated from the parents by court order because they have been judged to be unable to fulfill their parental responsibilities and obligations. The parental rights and responsibilities should end upon the relinquishment of their child. Both parents should grant consent for the adoption, but in the case of the unmarried mother, her consent alone is adequate.

Early relinquishment of custody of her child is advantageous for the unmarried mother and for the child but it should be taken only in accordance with the mother's emotional needs and readiness to give up her child. The agency must be prepared to take over at that time. An unmarried mother who has decided to relinquish her child should be relieved of the baby as soon as possible.

Services to the Child

A number of specific services to the child himself are necessary in any sound adoption practice. The agency has a responsibility to protect the child from unnecessary separation from parents who might give him a good home. If adoption is in the best interest of the child, the agency has a responsibility to select for him adoptive parents best matched and best suited to meet his individual needs. In addition, these services should include study of the child, careful consideration of the time when it would be best to place him in his new home, provisions for temporary placement pending adoption (should the circumstances indicate this) and facilities for the proper placement for children whose needs will not be met adequately by adoption. While the physician will not necessarily participate in all facets of these services, he should be familiar with the major principles involved. In this way he will be able to serve most efficiently as a consultant when and where his services are needed.

The purpose of studying and appraising the child is to provide sufficient information about him so that a rational assessment can be made of his physical status and personality, as well as any special needs he may present. On the basis

of such information, the agency can decide whether his needs can be met in adoptive placement and what sort of a family should be selected for him. This study should include: (1) a careful family history, particularly in terms of characteristics which may be of genetic significance; (2) a careful record of the mother's health during pregnancy and the details of the birth itself; (3) in the case of children beyond the newborn state, a developmental and health history contributes a great deal to the understanding of the child and (4) a complete physical examination.

Information from various sources must be correlated. The physician's opinion regarding all these matters is of importance, quite apart from the fact that he is the only professional worker who can assess the child's physical condition.

Early placement of infants is the practice of choice. It is regarded as a distinct advantage to all concerned, particularly the child, to place him in an adoptive home as soon after birth as possible —before six months of age, and preferably by three months or even younger. When early placement is legally permitted, more and more agencies do place infants directly from the newborn nursery, especially those infants with good heritage. This implies that the natural parents have voluntarily and with complete insight relinquished their rights to the child and that all legal requirements are met.

Temporary placement in a foster home may be necessary or advisable for children who are being considered for adoption. This is true for those infants for whom further observation is indicated, as well as for older children, whose own feeling regarding adoption merit careful consideration. Older children should have some voice in their future placement and may require preparation in the form of counseling, casework, or psychiatric treatment, prior to permanent placement in adoptive homes. Where temporary placement is indicated, it should be arranged in a foster home setting, not in a group living or institutional situation. Foster homes in Michigan must be licensed and ". . . No home shall be licensed to provide care at any time for more than two infants under one year of age, including children of boarding parents, except by special permission in writing from the Michigan Social Welfare Commission." Most children who have been passed from home to home suffer emotional damage from such experience.

Services to Adoptive Parents

Adoptive agencies have several types of services available to prospective adoptive parents. It is because of these various services that childless couples seeking to adopt a child should be referred to an established or official social agency. Many complaints are heard to the effect that adoptive agencies are unduly slow or meticulous in their study of prospective adoptive parents thus greatly delaying the time it takes to adopt a child. However, careful evaluation of the adoptive parents before the child is placed may go a long way toward insuring success of the adoption. It does not necessarily follow that every couple applying to an adoptive agency for a child either really needs or wants a child, or should be given one. Good service to such couples requires that the following points be gone into as part of the preliminaries to adoption: (1) it should be established that the applying couple do truly desire a child to love and to cherish, (2) that they are emotionally prepared for parenthood, and (3) that their capacity to provide a stable family life and reasonable opportunities for healthy growth and development of the child is adequate.

Many applications for a child have to be turned down because, on careful inquiry, it develops that the motivation is not proper; the deciding factor should always be the welfare of the child. Would-be adoptive parents who are motivated by any consideration other than the heartfelt desire to provide love and affection and a good home for an adoptive child must be recognized and refused a child. The trained social worker comes to recognize unacceptable motives such as the forlorn hope of holding together a shaky marriage, the desire to have a child because it is the fashionable thing in their set, or the almost hysterical plea of the recently bereaved parents seeking to replace a lost child. The decision to adopt a child is one which has life-long consequences for all involved. A good agency provides confidential counseling, and through work with a physician who knows the couple seeking a child, can often give them the advice that they really need whether it be to adopt a child or not.

Placement and Supervision

Agencies usually have more applications for adoption than children to meet the needs. From among the applications on file, the agency attempts to select that family which is best suited for a

particular child. While in the past some agencies have gone to great lengths on a matching process, most agencies at the present time consider the elements of age, race, personality, mental capacity and religion of both the child and the adopting parents.

Age.—The age of the parents in relation to the age of the child is usually considered. Ideally, infants and children under two years of age should be placed with younger parents of the childbearing ages. Some agencies at the present time work on the principle that there should not be any more than forty years difference between the age of the child and that of the parents. While older couples often make fine parents, the risks are naturally greater.

Race.—Race is usually matched, although more families are currently being found who can accept children of inter-racial background and provide a normal home life for them. Nationality and cultural background need not be seriously considered since neither of these factors seems to account for significant characteristics of the child.

Personality and Intellectual Capacity.—Although very little can be known regarding the personality and intellectual potential of infants, general assumptions can be made from thorough family and birth histories, from frequent observation and physical examination. While the intellectual level of the child's natural parents is considered in the selection of an adoptive home, it is expected that the home selected for any child will permit the child to develop at his own rate.

Matching Religion.—Although matching religion is one of the controversial points in adoption procedure, agencies usually consider the practice of religion as one of the factors which indicates stability and permanence in the family and home life of the applicants. The different religious denominations have varying requirements in this regard. Since most agencies respect the rights of natural parents as indicated by their wish in the matter when releasing the child for adoption, the general practice is to place a child in a home of the same religion as the natural parent or parents. This right of natural parents is supported and re-enforced by the civil law in many states. Some very tragic situations have arisen from the fact that the rights of natural parents regarding religion were not taken into consideration in the original adoption planning for the child.

Supervision After Placement.—After placement, the law usually provides for a waiting period before the adoption becomes final. This is also a period of crucial adjustment for both the new parents and the adopted child. During this time, the agency caseworker visits frequently to aid in the development of the new family life and spirit. Great skill is required of the social worker, for the parents must feel they are on their own and yet feel free to make use of the expert casework help that periods of adjustment sometimes demand. During this time the family doctor plays an important role.

The Handicapped Child

It is only recently that children with handicaps have been seriously considered for adoption. There are at least two explanations for this. First, adoptions have increased enormously in number since World War I, in part because there have been more homeless children, but also because a growing population and greater financial security have increased the demand for children. A second factor has been a changed attitude on the part of families seeking children for adoption and on the part of agencies whose function it is to find homes for children. Until a decade or so ago, few agencies would place for adoption a child who had more than a trivial handicap. Since then, pressures for adoptable children inevitably brought forward the thought that not all handicaps necessarily preclude adoption.

Another factor in the changed attitude toward adoption of handicapped children stems from the general shift of emphasis from finding a child for a family to the more important viewpoint of meeting the needs of a child for a good family environment in which he can grow and develop to his capacity. Looking at adoptions in this way, it is apparent that the handicapped child is in greatest need of a good home. Another shift in viewpoint or emphasis made the adoption of handicapped children feasible. It is now believed that for many couples, the rewards of parenthood do not demand that children be gifted and without blemish. In fact, experience indicates that joys and satisfactions may come from seeing a handicapped child overcome his handicaps or at least

develop to his full potential with the help of adoptive parents who realize that they have done a good job—one well worth doing.

Having accepted the principle that many handicaps do not preclude adoption, the question arises: "What handicaps do preclude adoption?" Only a general answer can be given. A child whose handicap makes it apparently impossible for him to profit from family life should not be placed. Also, if the child's handicap is such that no adoptive parents can be found who would derive emotional satisfactions, or form rewarding family ties to him, some placement other than adoption should be considered. Thus, we see that in all instances involving the adoptability of a handicapped child, there must be a weighing of the needs of the child, the needs of the adopting family and the chances that the adoption will succeed, that is, that warm family ties will grow and develop.

Each handicapped child who comes under consideration for adoption must be evaluated carefully and individually and not ruled adoptable or unadoptable by categorization. Thus, some children with cerebral palsy are adoptable, some are not, and the decision in any case depends partly on the child and partly on the family which may want him in spite of his handicap. Some families could be happy with a child with moderate or severe involvement, others would have to have a child with minimal involvement. Similarly, some children with paralysis due to poliomyelitis, spina bifida, harelip, mental retardation, are adoptable. It is unnecessary to lengthen this list unduly for, again, every child with a handicap who is without a family of his own, needs wise and careful consideration. In general, the adoptive family will get satisfaction from making real contributions to the child's rehabilitation where such is possible. Thus the child with a club foot, a harelip, a residual paralysis from poliomyelitis—defects which are amenable to further corrective treatment, can bring satisfaction and joy to a family who see him improve under their care. Many adoptive agencies like to begin needed rehabilitative measures before adoption is started and may continue to assume financial responsibility during the probationary year (common in most states) or for a longer time. Sometimes placement on a foster home basis, looking to eventual adoption in that home is a satisfactory arrangement when correction of the handicapping condition will require prolonged and expensive treatment.

The Geneticist and Adoption.—Everyone hopes that the child up for adoption has an impeccable heredity. Unfortunately, no human being is in this state of perfection. In general, children who come under consideration for adoptive placement have about average hereditary backgrounds. This is so because each of us is the point of an inverted triangle filled with countless ancestors and countless genes—both good and bad. The child born into a family does not have his heredity questioned; the child being considered for adoption often does undergo this scrutiny, because there may be some undesirable hereditary traits whose appearance in the child at some future time might seriously jeopardize the success of adoption. A good medical history of both natural parents and their families will sometimes indicate that unfavorable traits may have been passed on to the child. In doubtful cases, a geneticist can be helpful in pursuing the pedigrees of the families and in predicting the chances of the undesirable trait appearing in the child. Certain hereditary diseases carry such high chances of becoming manifest in the child that the prospective adoptive parents must be made fully aware of all the implications before being allowed to take the child. However, hereditary transmission of disease or defect in man is by no means simple. There are matters of penetrance, expressivity, skips, dominance, recessivity, heterozygosity and homozygosity, to mention only some of the terms used by geneticists, all tending to confirm the vagaries of inheritance of disease in man. Some diseases like phenylpyruvic oligophrenia, juvenile Tay-Sachs, and Niemann-Pick disease become manifest early in life, if at all, and therefore the known presence of these traits in a family does not preclude adoption of a child already past the time of clinical appearance of the corresponding disease. However, the adopting family should know of the carrier status of the child for the trait in question if this can be ascertained.

Questions of epilepsy, diabetes, mental illness, and other such conditions which may be genetically significant often trouble adoption agencies. Current opinion does not preclude children of such background from adoptive placements. Families considering adoption of such children should be informed of the situation and be permitted to

adopt such a child if they seem to be able to accept these additional risks.

When problems presented by the possible presence of undesirable hereditary traits in children arise in adoption, a geneticist can be helpful. In most instances such services are available in nearby universities. It is well to remember that most adoptive parents run no greater genetic risks with their adopted child than they would probably have encountered could they have become natural parents.

Michigan Law Relating to Adoption

(710.1 et seq. Comp. Laws Mich. 1948 and supplements: 37.3178 (541) et seq. Mich. Stats. Ann. and supps.)

The purpose of the Michigan adoption statute is to create the legal status of parent and child between persons not so related in nature. Michigan has had a valid adoption statute since 1887; fully rewritten in 1945, it has been amended several times since. In order to effectuate this purpose, the legal rights of (1) the natural parent or parents, (2) the adoptive parents, and (3) the child must be fully represented and so shown to be by the record of the case. Only thus can the adoptive family be secure from attacks by natural parents or third persons, subsequently.

Unless the welfare of the child is the focus of the courts and others concerned with each adoption, the court in any case will not have an adequate basis for making an order which will carry out the intent of the law. For this reason, it is recommended that in all adoption cases other than those involving close relatives, the court record should show that the placement has been made or approved by a licensed placement agency. The law does not now require this. It does require the court to direct an investigation, but the court may cause the county agent or probation officer, a licensed placement agency or the Michigan Children's Institute to make it. Where either of the first two are chosen, the adoption cannot be said to be invalid if, under section 6 of the statute, the judge is satisfied with the consents, the home, and the welfare of the child. When so satisfied, he enters an order terminating the rights of the natural parents, or those acting in place of parents, and, at this point, the child becomes a ward of the court and the consents may not thereafter be withdrawn. The final order of adoption (section 7) entered a year later (or sooner in certain circumstances) completes the adoption and ends the role of the court.

The State Department of Social Welfare points out that section 7 of the boarding home licensing law (722.108 CL 1948) makes it a misdemeanor for anyone not closely related to a child to place a child for adoption, other than a licensed placement agency. Having this as read in connection with the adoption law in mind, it is possible for judges to require, as some do, that all adoptions go through a licensed agency. Where, however, a judge approves an adoption without licensed agency participation, this cannot be said to be an invalid adoption, although the placement might subject certain individuals to criminal action under the boarding home law.

An amendment requiring licensed agency participation in all cases is a future goal for Michigan, a goal already realized in many states.

The Michigan law affords a method of protecting the privacy of the adoptive family by permitting the natural parents to execute a release to a licensed child placement agency. In order to afford full protection, such release must be evidenced by a writing acknowledged before the judge or referee, and must be made after full advice concerning legal rights, as the voluntary act of the parents.

Unless a release is on file with the court, consents of both natural parents of a legitimate child, or of the mother of an illegitimate child, must be obtained except where parental rights have been terminated by a court, or unless a personal guardian has been appointed for the child, or unless the consenting parent has had a guardian appointed by reason of mental incompetence. Where any of these exceptions occur, care should be taken to obtain adequate legal advice concerning the advisability and procedure for substituting for parental consents. For example, an order of a divorce court giving custody to one parent does not "terminate" the rights of the other so as to make the consent of the noncustodial parent unnecessary.

With respect to fees, section 13 of the adoption law prohibits any person (including physician, lawyer or private person) from giving or receiving money or other consideration in connection with placement or consents in adoptions, except such fees as may be approved by the court. Fees to licensed placement agencies often are approved

(Continued on Page 1329)

Reduction of Fetal and Neonatal Mortality and Morbidity

By Goldie B. Corneliuson, M.D.
Lansing, Michigan

THE reduction of fetal and neonatal mortality and morbidity, often called perinatal casualties, is one of the greatest challenges to medicine and to public health today. The magnitude of the problem is shown by the fact that the number of fetal and neonatal deaths is equal to the total number of deaths occurring during the next forty years of the life span. Fetal and neonatal morbidity, sometimes called the continuum or aftermath, manifests itself in the thousands of children born each year who are handicapped for life by cerebral palsy, epilepsy, mental retardation and deviate behavior patterns. The same factors which cause death in one infant may cause defect or lifelong disability in another. For parents, perinatal casualties mean heartache, financial sacrifice and difficult family and social adjustments; for children, physical suffering and mental anguish; and for society, the expenditure of millions of dollars on rehabilitation, treatment, and often lifetime custodial care.

The solution of the problem is fourfold. It involves: (1) socio-economic factors; (2) public education; (3) research; and (4) further improvement in the medical and hospital care of mothers and infants.

1. Progress in health of the public is inseparably linked with social and economic progress. Perinatal loss is one of the most sensitive indices of the social and economic level of a community, the higher the social and economic status the lower is the perinatal mortality rate. There is a marked correlation between perinatal mortality and the father's occupation, the mother's education, and the private *versus* the ward (or service) patients—even when rates are adjusted for color or race. As good citizens, we must exert every effort to improve the socio-economic status of the less privileged in our communities.

2. The second part of the solution is public education. Just as expectant parent education has been an important factor in reducing maternal mortality in the United States, so better preparation of youth for parenthood, especially the promotion of good nutrition during adolescence, will help solve the more difficult problem of perinatal loss. Certainly, one of the responsibilities of the general practitioner, the pediatrician and the gynecologist is the preparation of the maternal organism for successful gestation. The World Health Organization has recognized the importance of the preparation of youth for parenthood by including the following in its statement of the broad objectives of maternity care:

> Maternity care, in the narrower sense, consists of the care of the pregnant woman, her safe delivery, her postnatal examination, the care of her newly-born infant, and the maintenance of lactation. In the wider sense, it begins much earlier in measures aimed to promote the health and well-being of young people who are potential parents, and to help them develop the right approach to family life and to the place of the family in the community.

3. Research by teams of multi-disciplinary scientists on factors causing perinatal mortality and morbidity is essential. In his text entitled "Perinatal Loss in Modern Obstetrics," Robert Nesbitt, Jr., M.D.,[3] points out that fully one-third of all deaths in the perinatal period are unexplainable by current techniques of study. We are ignorant of the basic pathophysiology which is involved in the uterine dysfunction that results in premature labor and the birth of premature infants whose high mortality rate comprises a large component of the perinatal mortality rate. The fact that anoxia is the factor most frequently responsible for fetal deaths points to the need for a better understanding of maternal-fetal oxygen relationships.

Research at the level of the capillary will help to reduce perinatal casualties due to hyaline-like membranes in the lung, fibrinoid degeneration in the placenta, arteriolar degeneration in toxemia

Dr. Corneliuson is director, Maternal and Child Health Division, Michigan Department of Health.

and petechial hemorrhages and edema in brain injury.

4. The fourth, and to us the most important, means of reducing perinatal casualties is further improvement in medical and hospital care of mothers and infants. One of the best means of improving care of mothers and newborn infants is the development of a hospital perinatal mortality study and, when feasible, a city or county-wide study. A perinatal mortality study involves the most critical and courageous self-evaluation for physicians. Physicians who engage in perinatal mortality studies are really to be commended for their courage and wholehearted interest in doing a better job. Every effort should be made to refrain from pointing a finger at anyone. The study should be conducted courteously with the strictest adherence to high principles of ethics. It is important that criteria for determining avoidable factors be based upon ideal conditions. Perinatal mortality studies are difficult but they are challenging, stimulating and they are rewarding in terms of improved standards of care. They are most effective educational tools—residents and interns are especially enthusiastic about them.

In order to promote the development of mortality and morbidity studies in Michigan, an act was passed by our legislature to safeguard the confidential character of research studies conducted by the Michigan Department of Health. This is Act No. 39, P.A. of 1957.

One of the most interesting studies with which we in the Michigan Department of Health have assisted is the city-wide perinatal mortality study in Saginaw. All four hospitals in Saginaw are participating in the study—Saginaw General, St. Luke's, St. Mary's, and Saginaw Osteopathic.

Although the first year and a half of the Saginaw study (July, 1956-December, 1957) has included the analysis of only 240 perinatal deaths, some interesting trends are evident. The perinatal mortality rate for the county in 1957 reached a new low of 25.3 per 1000 total births as compared with the 1956 rate of 31.9. Prematurity was a factor in 65 per cent of the deaths analyzed to date. Abnormal conditions in the placenta and/or cord were present in over 40 per cent of the fetal deaths and 30 per cent of the neonatal deaths, as demonstrated in other studies. It is also interesting to note that in the voting there has been an increasing tendency on the part of hospital staffs to designate deaths as preventable and a decreasing tendency to designate deaths as unavoidable disasters. The per cent of autopsies has varied from 38 to 68 per cent in the four hospitals with an average of 50 per cent. Records have improved greatly. One of the major gains has been the increased interest in both perinatal morbidity and mortality which the study has sparked on the part of practicing physicians, interns, residents, and nurses. As a nurse was preparing for discharge a premature infant who weighed 1 lb., 10 oz. at birth, she said, "This is one infant we saved from the perinatal mortality study." An unexpected gain was the ease with which a city-wide committee was set up to cope with problem of control of hospital infections—especially staphylococcus infections.

The American Medical Association is giving tremendous leadership in the attack on perinatal mortality and morbidity. Recently it completed "A Guide for the Study of Perinatal Mortality and Morbidity"[1] which will be made readily available to physicians throughout the country. This manual will be most helpful to members of hospital staffs interested in developing perinatal casualty studies. According to the American Medical Association, the broad objective of a perinatal casualty study is "to improve the production of normal human beings. The elimination of needless deaths and damage during the process of reproduction is the ideal for which we should strive."

Perinatal mortality is defined as those deaths of fetuses and newborn infants occurring before, during and after birth. Although there is not absolute agreement throughout the United States on the length and the end points of the perinatal period, the definition which is gaining in acceptance is that being used by the U. S. Children's Bureau[4] and recommended in the American Medical Association Guide as *Perinatal Period II*. It is the period between the twentieth week of gestation and the twenty-eighth day of life. Perinatal studies developed on this basis begin with fetal deaths of 501 gm. and include all newborn infant deaths that occur during the first twenty-eight days of life. For study purposes, it is advisable to divide fetal deaths into intermediate (twenty through twenty-seven weeks) and late fetal deaths (from twenty-eight weeks to term) and to divide neonatal deaths into those occurring during the first week of life and those occurring from the first week to the twenty-eighth day of life. This breakdown will

permit combinations for national or international comparisons.

The perinatal mortality rate is to be calculated on the basis of the total births in the perinatal period chosen for study. The following formula is used for calculating the rate for Perinatal Period II.

$$\frac{\text{Neonatal deaths and fetal deaths over 500 gm.}}{\text{Live births and fetal deaths over 500 gm.}} \times 1{,}000$$

Perinatal Period I is defined in the American Medical Association Guide as the period beginning with fetuses of twenty-eight weeks gestation and continuing throughout the first week of life. The mortality rate for the Perinatal Period I is calculated by the following formula:

$$\frac{\text{Deaths of infants under seven days of age and fetal deaths over 1,000 gm.}}{\text{Live births and fetal deaths over 1,000 gm.}} \times 1{,}000$$

Perinatal morbidity is defined as a pathologic condition occurring in the fetus or infant during the perinatal period. New study committees generally confine their activities to studies of mortality alone, but effective perinatal mortality studies always favorably influence the reduction of morbidity in the perinatal period as well.

Hospital Perinatal Mortality Study Committee

The specific purposes of a hospital perinatal mortality study committee as defined by the American Medical Association are to:

1. Improve the quality of patient care through the self-evaluation of services;
2. Point out deficiencies in care and management which might be avoided;
3. Institute measures for preventing deaths and damage during the perinatal period;
4. Improve quality and effectiveness of teaching;
5. Identify leads for further investigation and/or research.

The functions of the committee include:

1. Review and analysis of each perinatal death as soon as possible after occurrence;
2. Determination of avoidable factors;
3. Conduct of a perinatal mortality conference program within the hospital;
4. Encouraging staff members to examine and record the condition of all placentas;
5. Encouraging autopsies of all perinatal deaths by a competent pathologist, if possible.

Organization of the hospital committee should be sponsored by the hospital medical staff. It is generally agreed that the committee should include: obstetricians, pediatricians, general practitioners, pathologists, anesthesiologists and health department representatives. The American Medical Association recommends including nursing supervisors of the delivery unit, labor rooms, nursery, and obstetric floor; medical record librarians; and hospital administrators as indicated. The presence of residents and interns at these meetings has a distinct educational value.

In the operation of effective study, adequate and complete hospital records (both maternity and newborn) are a basic requirement. These records include (1) the prenatal record, (2) the labor and delivery record, (3) a maternal infant record and (4) the physician's record of the newborn infant. Many Michigan physicians have adopted the practice of preparing an extra copy of the prenatal record and taking it to the hospital two weeks before the expected date of delivery. This proves most helpful in caring for the mother and newborn infant. Hospitals that have developed a maternal infant record are most enthusiastic about it. This record is completed after each delivery and accompanies the baby to the nursery. It includes pertinent information regarding the mother's prenatal history, her delivery, as well as the care and condition of the newborn infant in the delivery room. The physician's record of the newborn infant should include a record of the initial examination of the infant as well as the discharge examination, the physician's orders and his progress notes kept up to date. Recommended sample records are included in the appendix of "The Michigan Department of Health Hospital Manual."[2]

The development and/or adoption of a perinatal mortality study form is one of the first steps in the organization of the study. In Michigan, we have learned much about forms from the perinatal mortality studies carried on first in Wayne County and more recently in Saginaw. After a year's experience with the perinatal mortality study form originally adopted in Saginaw, it was decided to make major revisions in it and then recommend it for statewide use. A committee, with representation from obstetricians, periatricians, and general practitioners, including an osteopath from Saginaw, assisted by public health physicians and statisticians from the Michigan Department of

Health and the Detroit City Health Department, prepared a form which follows the sequence usually found on Michigan maternity records and which can be completed primarily by checking. A working draft of the form was sent to leading pediatricians, obstetricians, general practitioners, pathologists, and anesthesiologists for their review before the form was printed. They made excellent suggestions which were incorporated into the form as printed and recommended for state-wide use. Although this new form may look formidable to some, physicians who have used it to date in Saginaw and Grand Rapids have been enthusiastic about it. However, we already have several ideas for improving it. For example, the next printing will use one color for fetal deaths and another color for neonatal deaths, making it possible to differentiate immediately between a fetal and a neonatal death when coding. In order to facilitate uniform interpretation of the items on the Michigan Perinatal Mortality Study form, the Saginaw group and the State Health Department have prepared a Perinatal Mortality Study Guide[5] to assist local committees in developing studies. Supplies of the form and copies of the Guide are available on request from the Michigan Department of Health.

Study Forms

The perinatal mortality study form should be carefully designed and should provide for the recording of the socio-economic history, the prenatal record, the preparatory medication, the type and application of anesthesia, the type and complications in delivery and the fetal or infant's history from the time of the mother's admission to the hospital until death, as well as the pathologist's findings. After completion, the form is submitted to the hospital perinatal study committee chairman.

Processing of Data

1. The perinatal mortality study committee should meet at frequent intervals to review the data and to classify each death as to cause, pertinent characteristics of the cause and possible avoidable factors.

2. Criteria for determining avoidable factors should be based upon ideal conditions.

3. The committee should make arrangements for the transfer of data to punch cards to facilitate statistical analysis.

Follow-up and Use of Findings

1. The perinatal mortality conference should be a regular periodic staff activity attended by all physicians who deliver and care for babies.

2. Selected case material and committee findings with appropriate anonymity should be used in pediatric and obstetric department meetings for the purpose of alerting physicians to the possibilities of improving care.

3. Special recommendations should be sent to the hospital executive medical staff, the administration or hospital policy board when improvements in hospital facilities and/or policies are considered necessary for improving the care of newborn infants.

Our experience with perinatal mortality studies has re-emphasized the importance of the accurate completion of birth and death certificates. It should be clearly understood by all physicians that vital statistics prepared by state and federal agencies can be only as accurate and complete as the records on which they are based.

The reduction in infant mortality beyond the first week of life is one of the most dramatic achievements of modern medicine and public health (especially by sanitation). Unfortunately, the number of deaths during the first week of life, especially the first two days, has not shown a corresponding decrease. Therefore, it is on this period that we must concentrate our efforts. Very special attention should be given to the preconceptional care of women who have had previous obstetric or non-obstetric complications because studies have shown that one fourth of such women are responsible for two thirds of the perinatal loss. Both physicians and hospital administration must continually be on the alert to institute every possible measure to prevent and to treat (1) prematurity, (2) anoxia, (3) birth injury and (4) congenital malformations, the four leading causes of perinatal mortality and morbidity.

Prematurity

Well over half of all perinatal deaths are due to prematurity, primarily or in part. Measures which should be given consideration in reducing these deaths include good preconceptional and prenatal care; meticulous care of maternal complications which might lead to early interruption of pregnancy; adequate preparation in the delivery room for the premature birth, including a heated

incubator and a qualified physician who can give his undivided attention to the infant; supervision and care by registered professional nurses specially trained in the care of premature infants; instruction of parents before discharge of the premature infant; and good public health nursing follow-up in the home. In addition to deaths from prematurity, we are concerned about the aftermath or continuum. It is a well-known fact that the incidence of cerebral palsy is significantly higher in premature infants and according to a survey made at the Southbury Training School, Southbury, Connecticut, prematurity was ten times as common among the mentally retarded children in this school as it is in the general population.

According to Nesbitt,[3] "Modern obstetric teaching emphasizes conservative techniques of management which have as their primary goal the avoidance of fetal anoxia and trauma." He stresses the importance of conservatism in obstetrics throughout his text. Conservatism includes the elimination of high forceps, the cautious use of version and extraction, the discriminate use of cesarean section, the judicious employment of sedatives and analgesics, restriction of the use of anesthetics to those experienced in their administration, and limiting the use of pitocin to cases which have complied with all its requisites and contraindications.

All physicians who deliver infants and care for newborn babies should be experts in resuscitation. They should have a thorough knowledge of the physiology of respiration and the etiology, pathology, prevention and treatment of asphyxia. The currently wide distribution of the excellent manual on resuscitation prepared by the American Academy of Pediatrics[6] and their placard for posting in hospital delivery suites, should help to reduce the number of deaths caused by anoxia and trauma, as well as the number of infants born with cerebral palsy, mental retardation and epilepsy. According to Doctor Nesbitt, support is growing for the "opinion that anoxia incurred perinatally is the most important cause of cerebral palsy and other neurologic sequelae."

Congenital malformations are the fourth leading cause of perinatal death. Here lies a challenge especially to research but also to medicine and public health. Why should Michigan rank among the states with the highest mortality rates from congenital malformations?[7] Is there a geographic reason? Hope for prevention is rising. Even in light of present medical knowledge, undoubtedly some cases of congenital malformation can be prevented by pre-conceptional advice especially in regard to nutrition, the correction of chronic diseases in the woman before she becomes pregnant, and the avoidance of exposure to acute infectious diseases in the early weeks of pregnancy.

We have been considering medical responsibility in reducing perinatal casualties but closely interrelated is the responsibility of the hospital where, in the United States, 95 per cent of all births take place (in Michigan, 99.28 per cent). In the hospital care of mothers and newborn infants major consideration should be given to:

1. Effective staff organization.
2. The development of policies for the obstetric department which are posted and enforced. (For suggested policies, see Michigan Department of Health Hospital Manual Exhibit No. 26.)[2]
3. Qualified nursing personnel in labor and delivery rooms, and nurseries to supervise and care for patients twenty-four hours a day, seven days a week.
4. Complete records which are an indispensable part of good patient care in the hospital.
5. Individual equipment for mothers and infants.
6. Rigid enforcement of sterile techniques.
7. Strict segregation of maternity patients.
8. Elimination of overcrowding of beds and bassinets to permit adequate spacing of both mothers and newborn infants.

Rapid advances in research and medical practice are constantly yielding new facts which contribute to the prevention of reproductive failure. Continuous postgraduate education in medicine is essential for all of us who are striving to reduce fetal and neonatal mortality and morbidity. We need teamwork in the care and treatment of mothers and infants, teamwork in postgraduate education and teamwork in research. The achievement of our goal—the production of normal human beings—can best be approached through the joint efforts of physicians, geneticists, research scientists and parents.

References

1. A Guide for the Study of Perinatal Mortality and Morbidity. Chicago: American Medical Association, 1959.

(Additional References on Page 1338)

Treatment of Acne Vulgaris with Polythionates Incorporated in a Vanishing Cream Vehicle

By J. R. Delaney, M.D., R. J. Ferrara, M.D., and I. Robarge, M.D.

Detroit, Michigan

DESPITE the fact that in recent years a rather wide variety of medicinal agents and therapeutic procedures have been recommended for the control of acne vulgaris, the topical application of sulfur is still one of the measures most frequently employed in treating this dermatologic problem. The continued popularity of sulfur as a local remedy is undoubtedly because of its inherent drying quality and its keratolytic property. Its antiseptic activity further extends its usefulness, especially in those instances in which infection is a prominent involvement.

Experimental studies have demonstrated that sulfur is therapeutically active only when it is in the form of polythionic acid, particularly pentathionic acid. The latter has been shown to possess both germicidal and fungicidal activity.[5] When elemental sulfur is applied to the skin, presumably certain microorganisms or epidermal cells effect a conversion to pentathionic acid.[5] The more finely subdivided the applied elemental sulfur, the more easily and rapidly this chemical change takes place. Hence, the preference for colloidal sulfur preparations when elemental sulfur is selected for topical administration. But the more logical approach would seem to be to apply polythionates directly to the affected area, rather than depend on their being produced at the site through a chemical conversion of the applied sulfur.

The fungicidal property of polythionates has been revealed by a number of investigators. The germicidal activity of polythionic acids was demonstrated by Moller and Pedersen.[7] Combes[2] pointed out that the polythionic acids, through their hygroscopic properties, bring about dehydration of the epidermis thereby hastening exfoliation. Chardon[1] also concluded that such forms of sulfur are satisfactory drying and exfoliating agents. He states that the polythionic acids, and their salts, the polythionates, are the active compounds of sulfur at the skin surfaces.

Polythionate preparations have been used extensively in European countries for a number of years. Moller and Lomholt[6] reported on 175 cases treated with a stabilized aqueous solution of polythionates over a period of a year and one-half. They noted the following advantages of such a product: "An aqueous solution which cannot be seen on the skin, is stable and economic to use." Chardon[1] published the results of a study designed to evaluate the usefulness of polythionates in the treatment of acne and came to the conclusion that polythionates in an absorption base "constitutes the most efficient and most rapid local therapy against the ordinary forms of acne."

Dermasulf®, a stabilized aqueous solution of polythionates, essentially pentathionate and tetrathionate, was clinically studied by Finnerud and Riddell.[4] These investigators reported that sixty-seven of ninty-two patients (73 per cent) with seborrheic dermatitis of the scalp benefited from Dermasulf therapy. Thirteen of twenty patients (65 per cent) who were treated with Dermasulf for seborrheic dermatitis of areas other than the scalp improved. Ninety of 141 acne cases (64 per cent) responded favorably to Dermasulf treatment. The authors concluded that Dermasulf was generally well tolerated, that its simplicity of usage was a definite advantage, that it is therapeutically equal or superior to other available preparations intended for the treatment of acne or seborrheic dermatitis.

Delaney and Mahood[3] reported that Dermasulf, 5 per cent strength, elicited a satisfactory response in fifty-eight of sixty-four patients (90 per cent) experiencing acne or seborrhea. They summarized:

"This product constitutes a very satisfactory medicament for use whenever topical sulfur is indicated. It possesses certain physical and chemical properties that offer an advantage over sulfur in other forms. Applica-

From the Department of Dermatology and Syphilology, Wayne University College of Medicine, Detroit, Loren W. Shaffer, M.D., Chairman.

tion is effected with ease, and no residual is in evidence once the liquid vehicle has evaporated. Its relatively low surface tension permits rapid penetration to the target tissue by the active sulfur components."

In the study herein reported, the purpose was to evaluate the clinical effectiveness of polythionates in a flesh-tinted, faintly perfumed vanishing cream base. Two preparations were tested. The first, Dermasulf,* offered a concentration of 2 per cent polythionates, equivalent to 1.2 per cent elemental sulfur. The second, Topisulph,* contained 1.5 per cent polythionates and a 1.5 per cent concentration of a quaternary ammonium complex of polythionates†—total elemental sulfur equivalent, 1.2 per cent. (This latter preparation was developed on the premise that the germicidal efficiency of the combination would be greater than that of the polythionates alone, because of the contributing bactericidal activity of the quaternary ammonium compound.)

TABLE I. TREATMENT OF ACNE VULGARIS WITH DERMASULF OR TOPISULPH IN VANISHING CREAM BASE

Test Preparation	Number of Cases	Age Range	Number Previously Treated	Duration of Disease	Duration of Treatment	Reactions	Results
Dermasulf	17 males 25 females	12 years to 35 years	23	3 months to 20 years	2 weeks to 15 months	None	10 excellent 19 good 10 fair 3 poor
Topisulph	9 males 21 females	11 years to 35 years	6	2 months to 14 years	2 weeks to 1 year	None	5 excellent 15 good 8 fair 2 poor

This capacity of polythionates to rapidly penetrate the skin and enter the underlying tissue has recently been demonstrated by the use of radioisotope techniques. Neesby, Koff and Pircio[8] devised a method for measuring the rate and amount of absorption of radioactive sulfur by the intact skin of the rat. Employing this procedure and a variation of same, Neesby, Pircio and Grattan[9] substantiated that sulfur in the form of the polythionates does indeed readily pass the skin barrier and reach the tissues beneath. Further, Scott[10] has reported the results of a clinical study designed to determine the absorption and fate of radioactive sulfur in normal skin, and to compare these data with the behavior of S^{35} in the presence of seborrheic dermatitis, acne vulgaris and psoriasis. He noted a distinctive difference in the pattern of localization and mode of distribution of the radioisotope for each of these dermatoses and that characteristic of normal skin. As the lesions underwent clinical improvement, the rate and depth of penetration of the tagged sulfur became similar to that observed for normal skin.

The inherent therapeutic advantages of Dermasulf are favorably complemented by its cosmetic features. It is odorless and colorless, a clear liquid which when applied leaves no visible deposit. Most patients with prominent skin blemishes are keenly sensitive about their situation. They are reluctant to use topical medications which draw further attention to the areas of involvement and serve but to add to their embarrassment. Hence, they rather readily cooperate in a Dermasulf treatment program. Notwithstanding, on occasions the physician might prefer that his acne patient be treated with polythionates in a suitable absorption base rather than in an aqueous vehicle.

Seventy-two cases of acne vulgaris (one having a coincidental seborrheic dermatitis) were treated with one or the other test preparation. The program included patients from private practice as well as those seen in the clinic. As might be anticipated, more females than males were studied. Selection of patients to receive either Dermasulf or Topisulph was made at random, although actually the series placed on the former was half again as large as the series treated with the latter. Approximately 40 per cent of the subjects had at some time been given other therapy for their condition. Ages ranged from eleven to thirty-five years, and the duration of the disease from as short a period of time as two months to as long as twenty years. Dermasulf or Topisulph was applied twice or three times daily depending upon the oiliness of the skin of the individual patient. Treatment periods varied in length from two weeks to fifteen months, contingent upon the severity of

*The Dermasulf® and Topisulph used in this study were furnished through the courtesy of the Carroll Dunham Smith Pharmacal Company, New Brunswick, N. J.

†Bis-(lauryltrimethylammonium) polythionate.

the condition treated and the response to therapy. Table I lists the descriptive data pertinent to this study.

Discussion

Each of the cases chosen for this study satisfied the familiar definition for acne vulgaris. All presented facial lesions to a greater or less extent. In some, the involvement extended to the presternal, scapular, shoulder or back areas. Comedones were prominent in a large percentage of the patients, milia, papules, pustules and cysts to a lesser degree. Skin oiliness was pronounced in a number of subjects. Genuine cooperation in the evaluation program was as readily achieved from those individuals with a long or relatively long history of the disease as from those seeking therapy for the first time.

In the treatment of acne vulgaris it is important to recognize that topical remedies are primarily directed toward control of the external manifestation of a disease originating within the body. Careful attention must be given to those factors which may markedly contribute to the progress of the condition. Dietary habits must be modified to circumvent an excessive intake of fat and carbohydrate. Frequently the withholding of chocolate and iodide-containing foods may be indicated. Supplementation with vitamins, particularly vitamin A, in large doses, may be necessary. In stubborn cases judicious use of x-ray therapy should be undertaken. Emotional and digestive disturbances should be corrected as possible, and the importance of personal hygiene stressed. The over-all treatment, of course, must be individualized, if satisfactory control of the respective case is to be anticipated. Thus, in this study daily administration of Dermasulf or Topisulph was adjuvant to the imposition of certain dietary restrictions, the ingestion of vitamin A supplements, the use of an acid pH skin cleanser, and x-ray therapy or surgical procedures when applicable.

Dermasulf and Topisulph in their vanishing cream vehicles elicited quite comparable responses. Their effectiveness was equally apparent in those patients receiving an initial course of therapy and in those who had undergone other therapies previously. Dermasulf yielded "good" or "excellent" results in 69 per cent of the subjects using it and "fair" results in 24 per cent. Topisulph produced "good" or "excellent" results in 67 per cent of the cases treated with it and "fair" results in 27 per cent. About 7 per cent of the patients in either group responded poorly to the polythionate preparations. In no instance were untoward reactions encountered, nor was rejection of the medication made for any reason by any of the participants in the study. Both preparations were found to be esthetically appealing. Their consistency made application a simple procedure, and with light massage the tinted base blended uniformly with the natural color of the skin. The female patients especially looked with favor upon these medicated creams, because cosmetics could be applied without reservation immediately following their use.

Conclusions

The findings of this clinical experiment again confirm that sulfur in the form of the polythionates is an effective local remedy for the control of acne vulgaris. Administered in the type of vanishing cream carrier employed in this study, the polythionates retain their full therapeutic activity. Both the Dermasulf cream and the Topisulph cream are exceptionally well tolerated and enjoy complete patient acceptance. Either would make a practical companion product to the Dermasulf liquid presently in use. The availability of Dermasulf in both liquid and cream vehicles would permit the physician to select for the individual acne patient that form most suited to his needs.

Summary

A clinical appraisal has been made of the therapeutic efficiency of Dermasulf and Topisulph in a vanishing cream vehicle. In a series comprising seventy-two male and female patients with mild acne to severe cystic acne it was found that these polythionate preparations produced good to excellent results in 67 to 69 per cent of the cases and fair results in 24 to 27 per cent of the remainder. In only 7 per cent of the subjects was a poor response observed. Both preparations were distinctly well tolerated, no incidence of sensitivity having been observed. Patient acceptance of either of the medicated creams was very favorable. Cosmetically, the female patients in particular found the medications quite to their satisfaction.

The outcome of this study further demonstrates that the polythionates are an effective topical adjunct in the control of acne vulgaris. It is suggested that Dermasulf in a vanishing cream base

(Continued on Page 1278)

Perforation of the Stomach in the Newborn

By E. Malcolm Field, M.D., Robert O. Northway, M.D., and John W. Manning III, M.D.

Saginaw, Michigan

AMONG the uncommon diseases of the newborn infant is that of gastric perforation; while first recognized at the mid point of the nineteenth century by the German physician Elaesser, it was not until 1950 that the first case of survival following operative intervention was reported. Since the first perforation was noted, fifty-nine more cases have appeared in the American and foreign literature. We should like to report briefly four more cases, with three survivals, bringing the total to sixty-three.



Fig. 1. Photomicrograph of section through site of perforation in Case 1. Note complete absence of muscular layers.

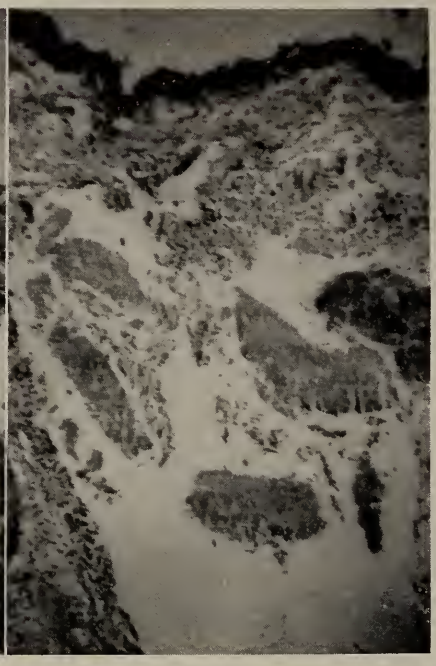


Fig. 2. Photomicrograph of section from greater curvature of stomach in Case 1 taken above site of perforation. Wall devoid of normal musculature layers, only a few muscle fascicles present.

Report of Cases

Case 1.—G. G., a seven-month premature Mexican girl, weighing 3 pounds 15 ounces, was born after a precipitous labor of twenty minutes on November 13, 1954. The child seemed to be doing well until 6:00 p.m. on the fourth day of life. At this time the patient became cyanotic and listless following an episode of regurgitation. The abdomen became distended, the pulse weak and bowel sounds hypoactive.

Upright and lateral films showed a massive pneumoperitoneum, and the child was scheduled for immediate laparotomy with a provisional diagnosis of a ruptured viscus. While a cut down was being started the patient's condition deteriorated rapidly and she died, four and one-half hours after the onset of symptoms.

Postmortem examination revealed a perforation two to three centimeters long in the pars media of the gastrium, extensive fibrinopurulent peritonitis, patchy pneumonitis and ureteral-ectasia without evidence of obstruction. Microscopic secretions made through areas of the stomach next to the perforation showed the wall to be thinned and almost devoid of muscular elements.

Presented at a meeting sponsored by the Regional Committee on Trauma and Nutrition of The American College of Surgeons, Ann Arbor, May 15, 1958.

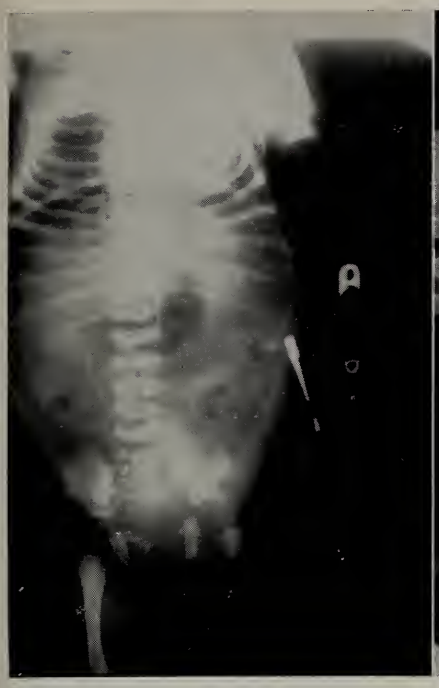


Fig. 3. X-ray of abdomen in Case 2 showing massive pneumoperitoneum.



Fig. 4. X-ray of abdomen in Case 3 showing free air below both leafs of diaphragm.



Fig. 5. X-ray of abdomen in Case 4 showing pneumoperitoneum and nasogastric tube passing into the pelvis.

Case 2.—C. T., a negro boy, weighing five pounds eight ounces, was born November 23, 1952, after a seven-hour labor with a spontaneous delivery. Progress was satisfactory until 5:00 a.m. on the third day of life when the child had a stool of dark blood. At 8:00 a.m. the infant was acutely ill, dyspenic and cyanotic. The abdomen was distended, silent and without percussable liver dullness or masses.

Plain x-ray studies of the abdomen showed considerable free air under the diaphragm.

With a preoperative diagnosis of ruptured viscus, the infant was operated upon about eight hours after the onset of symptoms. The peritoneal cavity contained a large amount of bile colored fluid and an opening two centimeters long was found in the greater curvature of the stomach midway between the cardia and pylorus. At the site of perforation, only mucosa and serosa seemed to be present. The rent was closed in two layers following which water was instilled through the nasogastric tube into the stomach. This passed freely into the duodenum, confirming the presence of only one perforation and the absence of duodenal atresia. The remainder of the gastrointestinal tract was inspected and found to be free of anomalies.

Postoperative progress was satisfactory and without complication. By the twenty-seventh postoperative day the infant weighed five pounds nine ounces, at which time he was discharged from the hospital.

Case 3.—C. E., a white male infant, was born on August 12, 1954, weighing seven pounds seven ounces. The neonatal period was uncomplicated until the early morning of the fourth day when the abdomen was found to be distended, silent and to have increased periumbilical erythema. A flat plate of the abdomen revealed a massive pneumoperitoneum. A cut down was started and the infant rehydrated with Ringer's solution. Following this, laparotomy was performed and a perforation found in the gastric end of the pylorus. This was closed with 000 chromicized catgut and sealed secondarily with a flap of omentum.

Postoperatively the child's condition was precarious for several days but finally responded to vigorous therapy. Because *Staphylococcus albus, E. Coli* and streptococcus were cultured from the peritoneal contaminant, parenteral antibiotic therapy was given. During the first six days the infant's weight dropped to six pounds but subsequently rose steadily until August 28, when the child was discharged.

Case 4.—J. B. was born on February 23, 1958, by cesarean section at eight months' gestation because of abruptio placenta. Progress was satisfactory until 2:00 a.m. on the third day when the child failed to eat well. At 6:00 a.m. the abdomen was first noted to be distended. The child was intubated and x-rays obtained showed a massive pneumoperitoneum with the polyethylene tube passing through the greater curvature into the pelvis. While waiting for the operating room to be readied, a cut down was started.

Upon opening the abdomen a perforation 4 to 5 cm. long was found in the greater curvature with the tube passing through it. At the site of the rent the musculature appeared to be completely lacking. The perforation was closed in layers following which sterile saline injected into the stomach via the nasogastric tube passed freely into the duodenum.

Postoperatively at the end of twenty-four hours oral feedings of glucose in water were started with subsequent progression to a full formula. By the fifth postoperative

day the child's weight had fallen to four pounds five ounces. It then gradually rose to 5 pounds 5 ounces on the eighteenth postoperative day when he was discharged.

Discussion

At present, there are four known etiologic factors operative in newborn gastric perforations. Listed in order of diminishing frequency they are: perforating gastric ulcer, hypoplasia or agenesis of portions of the gastric musculature, trauma (including nasogastric tubes) and sepsis.

In approximately 48 per cent of the cases reported, gastric ulcers resembling those in adults, have been found. Investigative studies have seemed to indicate two causes. Miller found that many newborn infants have a pH of gastric secretion reaching levels found in adults, at twenty-four to forty-eight hours of life with a subsequent diminution to low levels at five to six days of age. More recently, Hans Selye has drawn attention to the role of stress in peptic ulceration. Among the factors of stress is anoxia. Many infants who develop perforating ulcerations have had episodes of anoxia evidenced by fetal distress during or soon following delivery. Whether the incidence is statistically significant or not must wait until more cases are reported, giving the fetal status during labor and in the early neonatal period. Supposedly anoxia causes what Watson has referred to as diencephalic escape from cortical control with increased gastric stimulation by the vagus. This, combined with simultaneously increased steroid output by the adrenal cortices, sets the stage for autodigestion and possible perforation.

The first case of perforation secondary to thinning or absence of the muscular coats of the stomach was reported in 1943 by Herbut. Since that time several cases have been proven grossly and histologically to have muscular hypoplasia or aplasia. The most frequent site is along the greater curvature. At present there is no embryological explanation for such an anomaly.

Just how often trauma plays a part in perforation is not exactly known. Many infants are intubated without any untoward effects. But many of those who have perforated have had a nasogastric tube passed. Usually these have been a small caliber beveled polyethylene tube and at the time of operative repair or roentgen examination the tube has been found through a rent in the gastric wall. However, even in these cases the opening may be three to four centimeters long, a rent which it is hard to believe could be caused by the single passage of such a small tube.

Russell has suggested that perforation in some cases may be due to pressure on the abdomen at the time of delivery with amnionic fluid or air "trapped" behind meconium in the upper small bowel. Before accepting this hypothesis, it should be recalled that air does not exist in the neonatal gastrointestinal tract at birth. Furthermore, no cases where this has unquestionably been proven have been recorded. Two cases have been reported where perforation occurred in the immediate neonatal period, unassociated with ulcer or musculature defect, but with duodenal atresia which would lend some support to this hypothesis. Finally, four of the reported cases have been seen in infants with overwhelming sepsis.

The clinical picture of gastric perforation is that of an infant, often premature, who, following birth seems to be doing satisfactorily, taking formula and having normal meconium stools. Then there is a dramatic episode, resembling that in the adult, when the child's respirations become labored with intermittent periods of cyanosis, regurgitation of blood tinged formula and bloody stools. The abdomen quite suddenly becomes distended. Bowel sounds may still be present but soon disappear as peritonitis with adynamic ileus develops. The diaphragm is elevated and often there is no percussable liver dullness. Frequently there is edema of the skin with erythema which may be mistaken by the clinician as a cellulitis associated with omphalitis. Occasionally subcutaneous emphysema with distinct crepitus develops in the abdominal wall. In these cases cultures have been negative for clostridia. It is thought that air passes retrograde along the umbilical cord to the superficial layers of the abdominal wall. Dehydration may be marked and associated with a rapid pulse and other evidence of peripheral vascular collapse.

Roentgen evidence of massive pneumoperitoneum is almost always present and is the most important diagnostic sign for rupture of a hollow viscus. If gastric intubation has been carried out prior to obtaining a flat plate, the tube may be found to pass through the rent in the stomach, thus localizing definitely the site of perforation.

One variation in this pattern of events is seen when perforation occurs into the lesser peritoneal sac through the posterior gastric wall. Free air may not be seen under the diaphragm but rather

a mass may be found in the mid upper abdomen from gastric contents in the lesser sac extending down between the layers of the omental apron which as yet are not fused.

As soon as the diagnosis of a ruptured viscus has been established, immediate laparotomy is indicated. There is no place for conservative management. Preoperatively a cut down should be started to correct the fluid and electrolyte status and a soft nasogastric tube passed.

Usually local anesthesia is adequate and is certainly preferable in an already critically ill infant. Either a transrectus or a midline incision may be used, the latter giving better exposure for a thorough exploration to rule out multiple perforations or associated anomalies. By far the greatest number of perforations will be found on the greater curvature below the short gastric vessels. But a careful search along the posterior wall, cardia, and lesser curve should be made.

Closure of the rent is adequately carried out with two layers of sutures after debridement of the necrotic edges has been performed, the first layer a running lock suture of chromicized catgut and the second an inverting seromuscular layer. To assure a good closure, and at the same time detect other perforations, sterile saline may be instilled through the gastric tube.

Postoperative care consists of parenteral fluid and electrolyte therapy and low gastric suction for twenty-four to forty-eight hours or until peristalsis has returned. Antibiotics are of questionable value unless positive cultures have been obtained from the peritoneal contaminant.

In many of the reported cases, other anomalies have been present. These include: renal agenesis, ureteral and urethral obstruction, duodenal atresia, tracheo-esophageal fistula and Mongolism. The latter very serious abnormality has been noted in five of the sixty reported cases, an incidence which far exceeds the usual ratio of two Mongols per 1000 live births.

Summary

To the present time, a total of sixty-three cases of gastric perforation have been recorded. In this group thirty have been repaired surgically, the remainder having succumbed from peritonitis with a perforation either unsuspected or before laparotomy, giving an over-all mortality rate of 80 per cent.

Of those reported, gastric ulcer accounts for about 48 per cent and congenital muscular defects for many more than was formerly supposed. The latter is a condition occurring within the first twelve to fourteen days of life, more frequently in premature infants, and the diagnosis is not difficult to make if kept in mind. Delay between the onset of symptoms and repair carries a very high mortality rate. The only hope for survival is prompt diagnosis and surgical intervention.

THE SENIOR CITIZEN

(Continued from Page 1232)

recognition of their needs by younger members of their families.

Fauri and several other experts at the conference agreed that the U.S. is fast approaching a crossroad on financing medical care for the elderly.

"Because the costs of this care are substantially greater for the elderly than for the rest of the population, and because their financial resources available for this purpose are considerably less, some sort of subsidy will have to be provided," Fauri said. "Voluntary insurance programs like Blue Cross are trying to meet this need by spreading part of the costs incurred by the elderly over all their policy holders. Only four out of ten elderly persons have some type of health insurance. The question now is whether to wait for voluntary insurance to become more widespread among the aged or whether it will be necessary to develop some form of government subsidy for this purpose."

Dr. Basil C. MacLean, president of the National Blue Cross Association, told an earlier Conference session:

"About three-fifths of all persons sixty-five years or older had less than $1,000 income in 1958, and another one-fifth received from $1,000 to $2,000. It should be obvious from these figures that such low incomes for the great majority of our older citizens can hardly support anything but the most incidental of health expenses.

"Yet the health care needs of this population group are far from incidental. Those over sixty-five use about two and one-half times as much general hospital care as the rest of the population. It is a time of life characterized by long-term, chronic diseases and repeated admissions to the hospitals."

EDITOR'S NOTE: This argument predominated at the conference and points to a positive need for voluntary solution, else government medicine.

Roentgen Findings in Histoplasmin-Positive School Children

By Walter M. Whitehouse, M.D.,
Winthrop N. Davey, M.D., Otto K. Engelke, M.D.
and John F. Holt, M.D.
Ann Arbor, Michigan

As a result of the increasing use of skin testing as a differential diagnostic tool and also as a result of the increasing number of pulmonary resections for undiagnosed pulmonary lesions, physicians in all branches of medicine are becoming increasingly aware of the necessity for the consideration of histoplasmosis in the differential diagnosis of intrathoracic lesions.

In hospital practice we have come into contact with several groups of patients with histoplasmosis:

1. Those with multiple pulmonary calcifications which most observers consider to be more characteristic of histoplasmosis than of tuberculosis.
2. Patients with solitary pulmonary nodules in whom thoracotomy and histopathologic study is necessary to exclude neoplasm, with histoplasmosis subsequently demonstrated in the microscopic slides of the specimen.
3. The patient with acute clinical illness with extensive nodular infiltrative disease in the lungs which may gradually clear or resolve itself into diffuse nodular calcification.
4. More rarely, the patient with masses of mediastinal nodes who come to resection in order to establish a diagnosis.
5. Patients with disseminated pulmonary and visceral histoplasmosis.
6. Patients with cavitary disease which mimics perfectly far advanced pulmonary tuberculosis.

These repeated encounters with this disease call our attention again and again to the fact that there are important gaps in our knowledge of histoplasmosis. One of these gaps is in the early phase dealing with the intrathoracic pathology which occurs with the initial infection and the subsequent natural history of the disease. We have recently had the opportunity of adding to our experience in this particular phase of the disease, and the data presented here constitutes a preliminary report of what we hope will be a continuing study of this and similar groups of patients.

TABLE I. RESULTS OF SKIN TESTING

Locale	Total No. Tested	Tuberculin+		Histoplasmin+	
		No.	Per Cent	No.	Per Cent
Ann Arbor	2754	41	1.5	216	7.8
Milan	1329	16	1.2	817	61.5
Lincoln	1101	16	1.5	73	6.6
Ypsilanti	2035	32	1.6	217	10.7
Willow Run	1267	25	2.0	123	9.7
Chelsea	607	5	0.8	15	2.5

As a part of the Southeastern Michigan Tuberculosis Detection Project in the spring of 1958, a thorough skin testing program was carried out in selected schools of Washtenaw County. As a matter of interest, both tuberculin and histoplasmin testing were carried out, with incidental testing of teachers and other school personnel with whom students were in contact.

The total number of individuals tested was 9400, of whom 9073 were children. The results of the skin testing, tabulated according to location are shown in Table I.

The striking finding is the extremely high incidence of positive histoplasmin reactings in the village of Milan in comparison to the surrounding communities. This is demonstrated to better advantage when plotted on a bar graph as seen in Chart 1.

The next facet of interest is the age of the school children relative to the acquisition of histoplasmin sensitivity. This is demonstrated in Chart 2 for both Milan and the remaining communities.

So we have near at hand a community in which nearly 90 per cent of the school children have acquired a positive histoplasmin skin reaction by the time they have reached the age of fourteen. These findings were sufficiently striking to warrant filming of the positive reactors. A total of 770

From the Department of Radiology and Medical Tuberculosis Unit of The University Hospital, and the Washtenaw County Health Department, Ann Arbor, Michigan.

x-ray examinations were carried out in the group of 805 positive histoplasmin reactors in the Milan schools.

The findings in this group of films provide further data concerning the intra-thoracic pathology present in these children as they acquire their initial histoplasmin sensitivity and subsequently. Of the 770 films, fourteen were technically unsatisfactory. Of the remaining 756, no abnormality was seen on 570 films, giving an incidence of negative findings of 75 per cent. One hundred and eighty-six cases remained for study. The findings were tabulated according to the code in Table II, and the findings listed with their frequency in Table III.

To be noted is that lesions having progressed

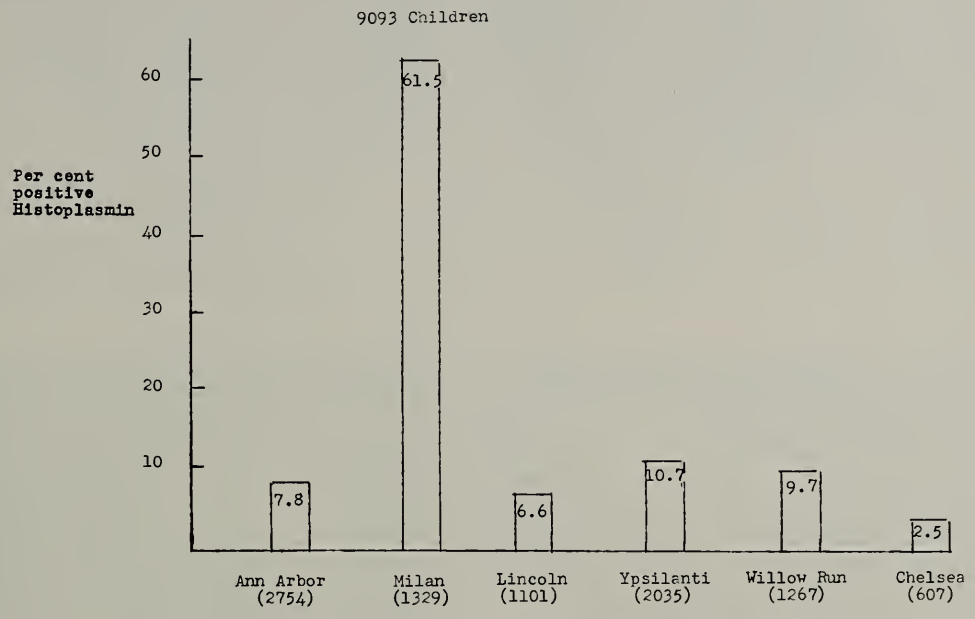


Chart 1. Incidence of positive histoplasmin reaction by locality.

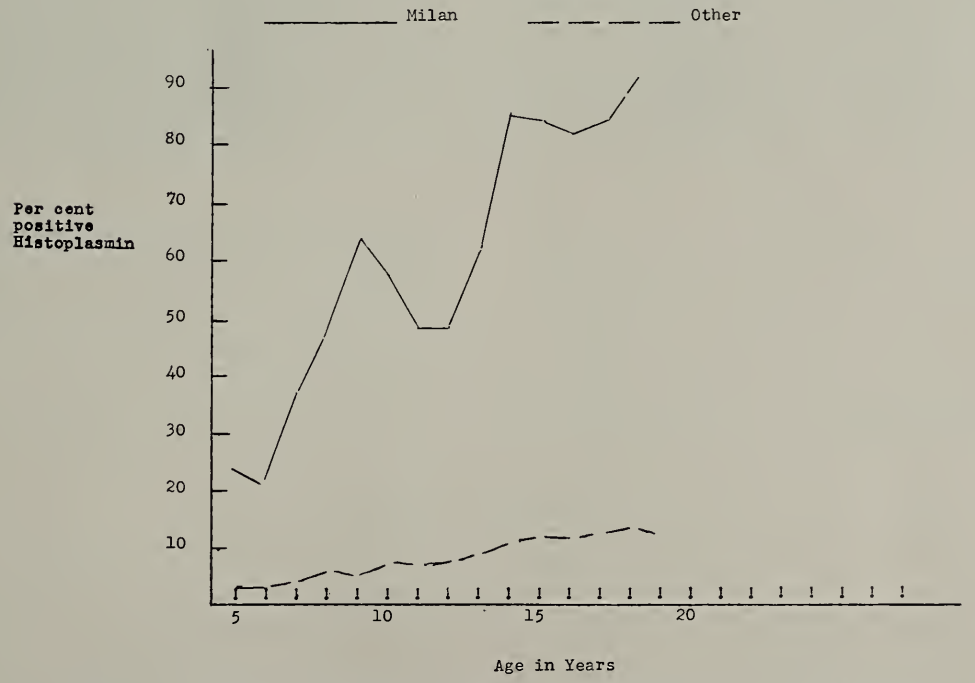


Chart 2. Incidence of positive histoplasmin reaction according to age groups.

to calcification constitute the majority of the cases having positive findings (that is, 124 of 186 or 66 per cent). Additional findings of interest include unilateral hilar calcification as the most

TABLE II. CODE FOR FILM FINDINGS IN HISTOPLASMIN SURVEY

0—Negative Chest.
1—Parenchymal calcification, solitary.
2—Parenchymal calcification, multiple.
  a—unilateral
  b—bilateral
3—Hilar calcification.
  a—unilateral
  b—bilateral
4—Uncalcified nodular lesion, solitary.
5—Uncalcified nodular lesion, multiple.
  a—unilateral
  b—bilateral
6—Hilar adenopathy, uncalcified.
  a—unilateral
  b—bilateral
7—Parenchymal lesion, infiltrative.
8—Pleural thickening.
9—Pleural effusion.
10—Paratracheal adenopathy, calcified.
11—Mediastinal adenopathy.
12—Atelectasis secondary to adenopathy.
13—Paratracheal adenopathy, uncalcified.
14—Other.

frequent abnormality seen, with slightly lower incidence of solitary parenchymal calcification, and a combination of these findings. Multiple parenchymal calcifications occurred less commonly than the solitary calcification. Of the earlier uncalcified lesions, hilar adenopathy, nodular lesions and infiltrative lesions are found in roughly equal incidence. Any combination of the calcified and the uncalcified lesions may occur. Pleural involvement is relatively minor and was infrequently seen.

Illustrative cases demonstrating the various lesions seen in this group are shown in the accompanying films, including right hilar and parenchymal calcification (Fig. 1), and uncalcified nodular lesion in the right lung (Fig. 2), and infiltrative parenchymal lesion in the left mid-lung (Fig. 3), left hilar adenopathy (Fig. 4), right hilar and paratracheal adenopathy (Fig. 5), and right hilar adenopathy with segmental atelectasis (Fig. 6).

The southern part of the lower peninsula of Michigan has been included in the area thought to have a 10 to 20 per cent incidence of histoplasmin sensitivity in previously published composite data reports.[2] The current concept of the epidemiology of histoplasmosis is summarized in a recent article by Furculow[3] as follows:

"The present theory is that the fungus H. capsulatum appears to be limited to its present geographic zone by conditions of temperature and humidity. The fungus is spread throughout this and adjacent areas by the prevailing winds and, occasionally, by tornadoes. It grows in localized places when the microclimatic conditions of temperature and humidity are satisfactory and not in any generalized manner. Finally, it appears to infect people who come to these localized sites and inhale the spores growing there."

It is apparent that such optimum microclimatic conditions are prevalent in at least one area in southern Michigan, and it is entirely possible that others may be found if intensive skin testing is carried out.

TABLE III. POSITIVE ROENTGEN FINDINGS IN 186 CASES

Unilateral hilar calcification	40
Solitary parenchymal calcification	30
Unilateral hilar plus solitary parenchymal calcification	30
Bilateral hilar calcification	3
Multiple parenchymal calcifications	8
Calcified paratracheal adenopathy	2
Uncalcified solitary nodular lesion	14
Uncalcified hilar adenopathy	17
Infiltrative parenchymal lesion	13
Pleural thickening	6
Uncalcified paratracheal adenopathy	2
Uncalcified mediastinal adenopathy	1
Atelectasis secondary to adenopathy	1
Combinations of above lesions	17

These endemic areas will provide valuable material for further studies in the epidemiology of histoplasmosis in Michigan. These studies will give us further insight into the roentgen changes in the apparently asymptomatic schoolchild with a positive histoplasmin skin test as contrasted with the symptomatic adults with more clinically significant forms of the disease.

Summary

1. An endemic area of histoplasmosis has been discovered in southeastern Michigan, providing an opportunity for study of early roentgen findings.

2. Negative chest films were found in 75 per cent of histoplasmin positive and tuberculin negative school children.

3. Two-thirds of school children showing positive x-ray findings showed the process already progressed to a stage of parenchymal or nodal calcification or both.

4. Unilateral hilar calcification is the most frequent abnormality seen, with slightly lower incidence of solitary parenchymal calcification, and a combination of these findings.

5. Multiple parenchymal calcifications occurred less commonly than the solitary calcification.

6. Of the earlier uncalcified lesions, hilar adenopathy, nodular lesions and infiltrative lesions are found in roughly equal incidence.

7. Any combination of the calcified and the uncalcified lesions may occur.

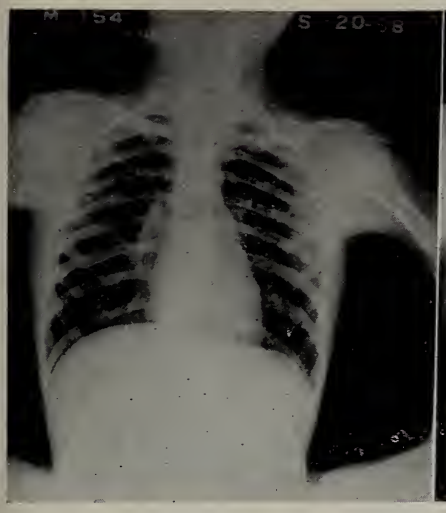


Fig. 1.

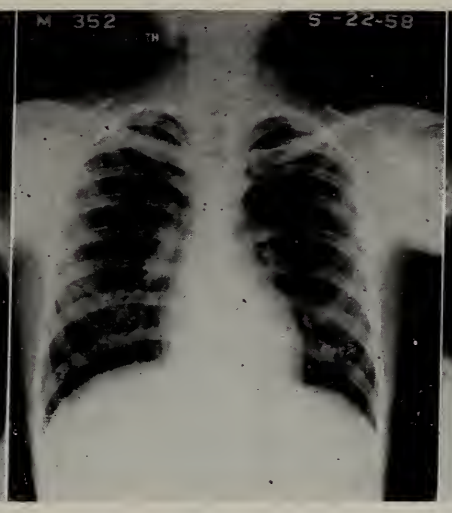


Fig. 2.

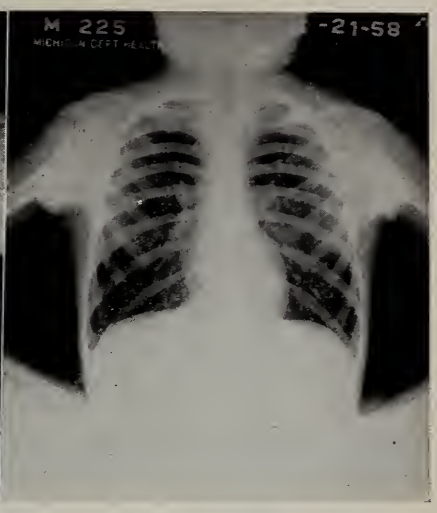


Fig. 3.

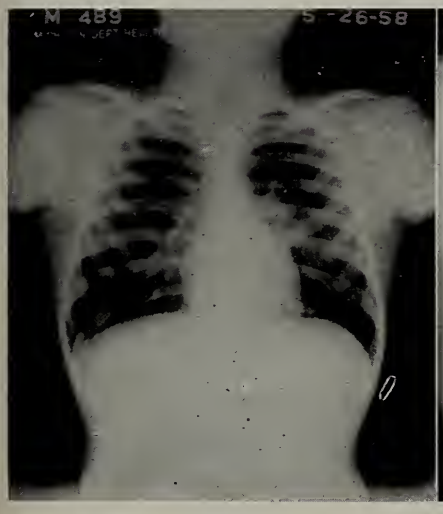


Fig. 4.



Fig. 5.

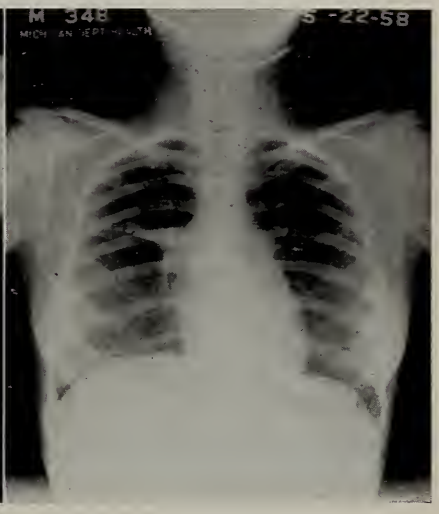


Fig. 6.

8. Pleural involvement is relatively minor and is infrequently seen.

9. It is hoped that continued opportunity for observation of children in this area will be afforded for additional evaluation of this problem, and associated problems in the epidemiology of histoplasmosis.

References

1. Baum, G. L., and Schwarz, J.: Pulmonary histoplasmosis. New England J. Med., 258:677-684 (Apr. 3) 1958.
2. Furculow, M. L.: On the usefulness of the tuberculin skin test. Am. J. Public Health, 49:1064-1073 (Sept.) 1956.
3. Furculow, M. L.: Recent studies on the epidemiology of histoplasmosis. Ann. New York Acad. Sci., 72: 127-164, 1958.

CARE OF THE CANCER PATIENT

(Continued from Page 1238)

dividualization of care for the patient is often within the bosom of his family.

The Detroit Home Care Demonstration Program has made available to the private practitioner in the care of his patients such services as bedside nursing, physical therapy, occupational therapy, diet therapy, home aid service and social case work. There is no place like home in many instances for the comfort, happiness and encouragement of the patient with a long term illness.

For the past eight years the Southeastern Michigan Division of the American Cancer Society has given financial assistance to the Visiting Nurses Association in the form of an annual grant.

In return for this support, the VNA provides skilled nursing service on a continuing basis to indigent cancer patients and a planning visit to any cancer patient referred by the Cancer Society or the doctor.

Effect of Operative Procedure on Gastric Acidity of Anesthetized Children

By Manuel Fernandez, M.D.
Highland Park, Michigan

MUCH has been written lately on the relationship between the adrenal cortex and the gastric secretory function, but there has been no uniformity of opinion as to the results both in man and experimental animals. Some investigators support the view that the adrenal corticosteroids are essential for the secretory response of the parietal cells,[12] that they increase the secretion of HCl and pepsin by 200 per cent,[5] and that they will increase gastric secretion after vagii are cut and with the antrum resected,[10] while other authors do not believe that ACTH or cortisone are sufficiently significant in the stimulation of gastric secretion to be effective in the production of peptic ulcer.[3] Dragstedt[3] has found that the trauma of operation does not stimulate the secretion of gastric juice in the vagotomized stomach. Nevertheless, that stress (both non-surgical and surgical) is associated with increased gastric secretion is supported by most investigators. It has been found[3] that the fasting secretion the night before operation is greatly increased. Drye[4] found that the gastric acidity in the immediate postoperative period was increased. The mechanism by which gastric secretion and acidity is influenced by the hypothalamus-anterior-pituitary-adrenal system is under current investigation. Stimulation of the anterior hypophysis has been reported to decrease the pH of gastric juice.[14] It has also been shown, that in Addisson's disease, achlorhydria is the rule and it has been reported that in these cases the administration of cortisone followed by histamine will stimulate the production of free acid by the gastric mucosa while histamine alone will not.[12] On the other hand, the gastric hypersecretion seen in Cushing's syndrome has been linked to the excessive production of steroids by the adrenal for it is abolished by adrenalectomy.[14]

From the Department of Surgery, Highland Park General Hospital, Highland Park and The Childrens Hospital of Michigan, Detroit.

Read at the meeting of the Detroit Surgical Association, March 24, 1959.

In the past decade, the increase in plasma 17-hydroxycorticosteroids as a criterion of adrenal activity during and after surgery and in non-surgical stress is well documented.[7,9,13] Since it has been shown that anesthesia alone increases the level of 17-hydroxycorticosteroids above pre-induction levels and that these same levels rise further during the operative procedure,[9] we have intended to investigate the possible parallelism between the response of the 17-hydroxycorticosteroids to the operative procedure (as shown by others) with that of gastric acidity in anesthetized children.

TABLE I. AGE DISTRIBUTION

AGE	NO. OF CASES
0 - 1 Mo.	1
2 - 3 Mo.	3
4 - 12 Mo.	3
13 Mo. - 2 Yrs.	3
25 Mo. - 4 Yrs.	2
Over 4 Yrs.	1
TOTAL	13

TABLE II. TYPE OF OPERATION

Herniorrhaphy	4
Pyloromyotomy	2
Pull-through	1
T.E.F. Repair	1
Exc. Choledochal Cyst	1
Craniotomy	1
Exc. Thenar Cyst	1
Skin Graft	1
Recession	1

Material and Methods

Thirteen consecutive cases scheduled for elective operation were used for this study. The age group and the type of operation performed are shown in Tables I and II respectively. The age ranged from three and one half hours to nine years; the weight ranged from 4 pounds to 96 pounds with an average of 24.5 pounds. The routine premedication used consisted of morphine, nembutal and scopolamine in all but two of the cases. This was given one hour before operation. No oral feedings were given for at least four hours before anesthesia. The anesthesia consisted of nitrous oxide,

oxygen, cyclopropane and ether which was always administered by the same members of the Department and in all cases through an endotracheal tube.

of gastric juice to pH 2.9 (the end point of Topfer's reagent). The latter is the amount necessary to bring the reaction to pH 8.3 (the end point of phenolphthalein). Because no anesthetic is ad-

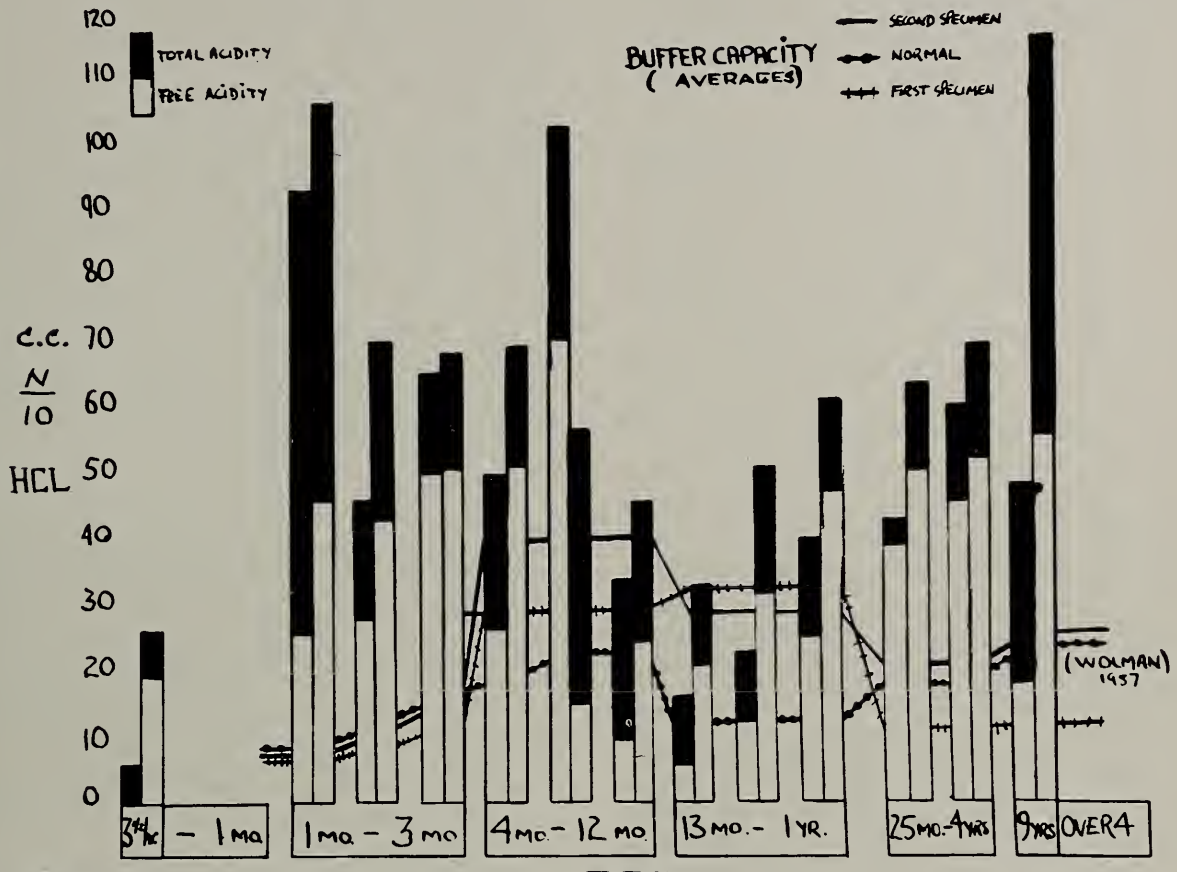


FIG. I

After the patient was anesthetized and before the skin incision was made, a gastric tube was passed and the gastric contents aspirated and collected into clean tubes and marked "first specimen." When the skin wound was completely closed and before the level of anesthesia was permitted to change, the gastric contents were again aspirated and collected in the same manner. This was marked "second specimen." The average operation time was one hour and eighteen minutes and all cases were done in the early hours of the morning. The analysis was done upon collection by titrating the specimen against 0.1 N sodium hydroxide delivered from a microburette using Topfer's reagent and phenolphthalein as indicators. The values obtained were expressed in the conventional way as degrees of free and total acidity. The former is defined as the number of 100 cc.

ministered to a patient with a hemoglobin below ten grams, the reported relation between a gastric secretory deficiency and the so-called nutritional anemia was eliminated.[2]

Results

The free acidity values of the first specimen ranged from 0 to 70 with an average of 26 degrees and free acidity values in the second specimen ranged from 15 to 55 with an average of 37 degrees. The total acidity values ranged from 5 to 103 with an average of 39 degrees in the first specimen and from 25 to 116 with an average of 63 degrees in the second specimen. Our youngest patient (three and one-half hours) showed an increase in free acidity from 0 during anesthesia to 19 at the completion of surgery, while our oldest (nine years) increased from 19 to 55, re-

spectively. No correlation was found between age, type and duration of operation and the differences between the gastric response. In only one instance was the acidity higher during anesthesia and before the skin incision was made. In this case, the anesthetic level of the patient became difficult to control and the excitatory phase was allowed to occur before the first specimen was collected.

Discussion

Determinations of the normal values of free and total gastric acidity from fasting specimens between the neonatal period and the first month of life have been made in the past.[6] Cutler[2] states that he found free acid up to ten cc. during the first eighteen hours. Smith[11] mentions 0 to 17 cc. of total acidity up to the first month of life. Similar studies from one month to adolescence are not available except for those using histamine as the stimulator and in those studies it has been found that in general there is a linear increase of acidity from childhood to adolescence.[2] We have used the results reported by Wolman[15] after histamine and expressed as the amount of buffer capacity (obtained by substracting the free acidity value from the total acidity) and compared them with our results in the same units (Fig. 1). The average buffer capacity of our first specimen (anesthesia) and of the second specimen (operative procedure) parallels somewhat the levels obtained by histamine. In some instances, the anesthesia levels are higher than those expected and decidedly higher in those obtained during the surgical stress. Since histamine stimulates the secretory function to near maximal capacity, our results seem to indicate that the surgical procedure increases it also.

On the other hand, recent studies are available which show the effect of anesthesia and surgical stress on the preinduction levels of plasma 17-hydroxycorticosteroids.[9,13] These studies have shown that elevation is not noted with the apprehension of the approaching surgical procedure, nor with the various types of premedication used, nor with the underlying clinical condition. Controlled studies of gastric acidity values under normal conditions of premedication are lacking, but the possible role of emotional stress under these circumstances is minimal. Following the induction of anesthesia, the 17-hydroxycorticosteroids increased significantly in a majority of cases. On the other hand, it has been shown[13] that during the operative procedure, the level of plasma 17-hydroxycorticosteroids are significantly and uniformly elevated both in experimental animals and humans. It has been reported that in the dog, the gastric acidity is increased immediately following a skin incision and remains increased throughout an operation.[8] Furthermore, it has been the experience of others[1] and our own experience that the volume of gastric secretion diminishes considerably during anesthesia and surgical stress, a fact which Hardy[7] attributes to increased adrenocortical activity as evidenced by a fall in the eosinophil count.

Although our series is small and lacks controlled studies, our results are apparently significant and timely in the current investigations of the relation between the hypothalamus-anterior-pituitary-adrenal system and the gastric secretory activity. Simultaneous gastric analysis and plasma 17-hydroxycorticosteroid determinations would have made this study more complete.

References

1. Austin, S.: Personal communication.
2. Cutler, R. D.: Normal gastric secretions of infants and small children following stimulation with histamine. J. Pediat., 12:1, 1938.
3. Dragstedt, L. R.: The etiology of peptic ulcer. J.A.M.A., 169:203-209, 1959.
4. Drye, J. C., Schoen, A. M., and Schuster, G.: Gastric secretion in the immediate postoperative period. A.M.A. Arch. Surg., 67:469, 1953.
5. Gray, S. J., Ramsey, C., Reifenstein, R. W., and Benson, J. A.: The significance of hormonal factors in the pathogenesis of peptic ulcer. Gastroenterology, 25:156, 1953.
6. Griswold, C., and Sholhl, A. T.: Gastric secretion in newborn infants. Am. J. Dis. Child., 30:541, 1925.
7. Hardy, J. D.: The adrenal cortex and postoperative gastrointestinal secretions. Surgery, 29:517, 1951.
8. Howe, C. W., Wigglesworth, W. C., and Porell, W. J.: Gastric secretory responses to surgical stress and infection. Surg. Forum. 38th Congress. p. 546. 1952.
9. Samberg, A. A., Risten, E., Samuels, L. T., and Tyler, F. H.: The effects of surgery on the blood levels and metabolism of 17-hydroxycorticosteroids in man. J. Clin. Invest., 33:1509, 1954.
10. Shay, H.: Stress and gastric secretion. Gastroenterology, 26:316, 1954.
11. Smith, C. A.: The physiology of the newborn infant. P. 174. Springfield: Charles C Thomas, 1946.
12. Stempien, S. J., and Dagradi, A.: The histamine response of the gastric mucosa in the patient with adrenal insufficiency. Gastroenterology, 27:358, 1954.
13. Virtue, W. V., Helnreich, M. L., and Gainza, E.: The adrenal cortical response to surgery. Effect of anesthesia on plasma 17-hydroxycorticosteroids. Surgery, 41:549, 1957.
14. Welbourn, R. B.: The influence of the adrenal cortex on gastric secretion in man. Lancet, 270:664, 1956.
15. Wolman, I. J.: Laboratory applications in clinical pediatrics. p. 664. New York: MacGraw-Hill, 1957.

Endotracheal Anesthesia in Pediatric Plastic Surgery

Special Problems and Their Management

By Raymond D. Sphire, M.D.
Detroit, Michigan

COOPERATION is the common denominator which produces the successful results so necessary in the handling of the pediatric surgical patient. This is even more important in the field of plastic and reconstructive surgery where a child is more likely to require repeated surgical exposure.

This article presents methods and techniques which have been developed at our institution for the handling of these young people.

This approach to anesthesia and surgery is applicable in the other surgical units that involve infants and children. For the purpose of this discussion, however, we are limiting ourselves to the subject of anesthesia in plastic and reconstructive surgery.

The basis of this report is experience involving 395 cases from the Plastic Surgery Service at The Grace Hospital over a four-year period. The ages of the patients in this series range from two weeks to nine years of age. All types of plastic surgical procedures are included. All patients received some form of general anesthesia. Of the total number of patients in this series, 148 cases received a muscle relaxant following induction. The relaxant, succinylcholine chloride, is a short acting drug which produces optimal relaxation for endotracheal intubation. Regional or local anesthesia, in the main, has little place in this area by virtue of the age of the patients and the need for optimal operative conditions.

There have been no operative fatalities in this group nor has there been any postoperative morbidity related to anesthesia, (that is, atelectasis, bronchopneumonia, laryngeal edema, and so forth).

Much has been written on the subject of pediatric surgery,[1,2] however, since so much is at stake in these young people, perhaps this presentation will be of value to others who may be faced with problems similar to those which we have encountered in this field.

Premedication

Aims.

1. Reduce fear and apprehension.
2. Reduce bothersome secretions in the tracheobronchial tree.
3. Reduce noxious reflex activity.
4. Reduce metabolic activity.

To achieve the above aims, each child is preoperatively premedicated on a weight basis. The weight factor being considered the more valid basis for establishing dosage. In general, the child receives a barbiturate in rectal suppository form, one and one-half to two hours preoperatively. This is followed by a hypodermic injection of a narcotic plus a belladonna derivative. The latter is given forty-five minutes to one hour before surgery. This combination of drugs generally fulfills the aims of premedication.

The above drug schedule applies to children whose weight exceeds 20 pounds. No narcotics or barbiturates are given to children under six months of age.

The child arrives in the operating suite only moderately sedated, not unconscious.

It would be well to state emphatically at this point, that it is with the premedication of the child that the anesthesia really begins. Ventilation that is adequate and full alveolar ventilation is essential to the proper conduct of any anesthesia. Depressing respiration with any drug, initiates a chain of events that can produce metabolic and endocrine disturbances of such magnitude that the high incidence of cardiac arrest in children is readily understandable.[3]

With the dosage schedule given in Table I, the children are not depressed, so the anesthsia induction time as well as the emergence time is not prolonged.

From the Section of Anesthesia, The Grace Hospital, Detroit, Michigan.

Presented at the Seventh Annual Meeting of the Michigan Chapter of the American College of Surgeons, Detroit, March 10, 1959.

Table I is a guide to be followed only for average, well-developed patients. Atropine is to be given to all patients who are to receive anesthesia. Patients who are to receive rectal Pentothal should have atropine, but *no morphine, Demerol* or *other rectal barbiturate*. All other patients should have morphine or Demerol and atropine plus suppository Nembutal or Seconal. No morphine or barbiturate is to be given to patients under six months of age. Rectal suppositories of Nembutal or Seconal are to be given *ninety minutes* before operation. Demerol or morphine and atropine are to be given hypodermically *sixty minutes* before operation.

TABLE I. PREOPERATIVE MEDICATION FOR INFANTS AND CHILDREN

Age	Average Weight	Rectal Seconal or Nembutal		Morphine		Atropine		Scopolamine		Demerol
	Lbs.	mgm.	gr.	mgm.	gr.	mgm.	gr.	mgm.	gr.	mgm.
Newborn	7	—	—	—	—	0.1	1/600	—	—	—
6 months	16	30	½	—	—	0.2	1/300	—	—	—
1 year	21	50	1	1.0	1/60	0.2	1/300	0.1	1/600	10
2 years	27	60	1	1.5	1/40	0.3	1/200	0.2	1/300	20
4 years	35	90	2	3.0	1/20	0.4	1/150	0.2	1/300	25
6 years	45	100	2	4.0	1/16	0.4	1/150	0.2	1/300	40
8 years	55	120	2	5.0	1/12	0.4	1/150	0.3	1/300	45
10 years	65	150	3	6.0	1/10	0.4	1/150	0.3	1/300	50
12 years	80	200	3	8.0	1/8	0.4	1/150	0.4	1/150	50

It has been stated that except for the few cases of overdosage, drug idiosyncrasy and reflex phenomena, cardiac arrest during anesthesia stems primarily from extreme deviations of respiratory physiology.[4] Here is one of the differences between the child and the adult. Even though the child possesses a resilient cardiovascular system, there is less margin for error. Careless techniques and methods that are tolerated by the adult produce catastrophe in the child.

Anesthesia Techniques

Several excellent articles[5,6,7] point out the fact that most anesthesia equipment and most anesthesia methods are intended for adults. Children are an altogether different entity, they are not just small adults. As a consequence some techniques which are highly satisfactory in adults are extremely dangerous in children.[8]

In the field of plastic and reconstructive surgery, there is often a need for the anesthetist to abandon his traditional position at the head of the table in favor of the surgeon. There should never be any compromise of the child's safety to meet these needs.

Therefore, factors to be considered in determining the anesthetic methods and techniques used are:

1. Size of the infant or child.
2. The location of the operative site (there may be more than one, as in the case of skin grafting procedures).
3. The position of the patient.
4. The anticipated duration of operation.

The size of the child is important in determining the type of anesthetic apparatus to be used. It cannot be bulky or cumbersome, and in many cases by virtue of the operative procedures, certain techniques cannot be employed because of the space required for their operation.

The operative site is most certainly a deciding factor in the anesthetic approach. Intraoral surgery indicates either an insufflation or endotracheal technique.

The position of the patient influences choice of technique, in that the prone position almost always demands endotracheal methods.

The duration of operation may indicate endotracheal anesthesia, because of the greater control and efficiency afforded the anesthetist.

Anesthetic Agents

For induction of anesthesia, vinethene dropped on a four layer gauze mask, with 300 to 500 cc. of oxygen flowed under the mask via a catheter is the method of choice. This is quickly followed by ether and intubation if indicated.

In the older child of two years and more, if there is an accessible vein, an intravenous Pentothal induction is performed. Usually 30 to 60 mg. is sufficient to produce sleep, and this is followed immediately by 10 to 30 mg. of succinylcholine (short-acting muscle relaxant) through the same needle. The child is ventilated with 100 per cent oxygen and then intubated. If intubation is

not indicated, the Pentothal is followed by open drop ether or an insufflation technique.

Our experience has been that if a child of four or five years of age has had in his anesthesia history both an open drop or mask induction and a pentothal induction, he will on return for additional surgery, invariably ask for the "shot" to put him to sleep. Usually this request is made with one hand firmly clamped over his nose.

We think that in evaluating the psychic trauma associated with the mask methods of inducing anesthesia as compared to the intravenous type, that the latter is far ahead and the more desirable in producing a minimal disturbance in the child's approach to surgery. This is particularly true when the child knows he is returning in the future for more surgery.

For maintenance of anesthesia, ether with high concentrations of oxygen is the agent of choice. Open drop ether with supplemental flow of oxygen under the mask, insufflation, and non-rebreathing endotracheal are the primary methods of choice. Ether is preferred because of its high index of safety, the minute to minute control afforded the anesthetist, and the simplicity of techniques it allows.

Two types of anesthesia machines are used, the Foregger Copper Kettle unit and a personal modification of the Richardson Bottle device. Both insure adequate vaporization of ether at a high flow of gases.

A reservoir bag is always incorporated into the endotracheal technique, to afford the anesthetist immediate control of respiration if needed.

Experience has shown on numerous occasions that an endotracheal tube is the difference between a smooth, uneventful operation and a nightmare of blood, bucking, coughing and upset tempers. The advantages of an endotracheal technique far outweigh the disadvantages. There is an immediate reduction in the dead space, there is a constant patent airway, and the anesthetist can assist ventilation or even assume full control of respiration if the need arises.

The above points are very important in those cases where the anesthetist is away from the patient as in the repair of a cleft palate. Here the surgeon needs full freedom of movement, and it is in a situation such as this that teamwork is important. The assistant keeps the pharynx clear of blood by proper use of the suction apparatus. The surgeon notes such items as changes in the color of the blood, quantity of blood loss, and in this instance he will be the first to note a return of the swallowing reflex, indicating a lightening of anesthesia.

A point to be stressed here concerns the use of pharyngeal packs. Some foolproof system should be established whereby any and all such packs or sponges are removed at the completion of surgery. Tragic accidents can result if such a procedure is not followed.

Briefly, as pointed out by Smith,[9] the successful conduct of endotracheal anesthesia depends on certain prime factors:

1. Use of properly cleaned endotracheal equipment.
2. Use of tubes of the proper size.
3. Avoidance of forceful or hurried intubations.
4. Avoidance of excessive motion of the tube by proper fixation.
5. Use of properly designed laryngoscopes, as opposed to the large heavy instruments used in adults.

Strict adherence to the above principles will insure trouble-free endotracheal techniques in pediatric anesthesia.

Recently, much has been made of the need for various types of electronic apparatus to monitor the action of the heart during anesthesia. In all of our pediatric patients, it is mandatory that a stethoscope, equipped with extra-long tubing, be taped to the lateral anterior precordium. In this manner, not only are the heart sounds heard throughout surgery, but also the breath sounds of respiration. This method has proved to be of invaluable merit. With brief experience the anesthetist soon learns to correlate changes in what he hears and such occurrences as surgical blood loss, lightening of anesthesia, accumulation of secretions,[10] and so forth. Changes in rhythm are immediately detected and if a failure in circulation occurs, there is no delay in establishing the presence or absence of a heart beat.

Postoperative Care

In those cases, for example, palatorrhaphy, cheiloplasty, it is our practice to put down an appropriate sized feeding tube at the completion of surgery. This extra step facilitates postoperative

(Continued on Page 1320)

Experiences of the University of Michigan Poison Information and Therapy Center During the Year 1958

By George H. Lowrey, M.D.
Ann Arbor, Michigan

DURING the past three decades in the United States, accidents have led all other causes of death among children between the ages of one and sixteen years. Poisoning, as a cause of accidental death among children is one of the most important, and in frequency is exceeded only by automobile accidents, burns, and drowning. It is estimated that in the United States, approximately 500 children are poisoned to death each year and that at least 200,000 children require some medical treatment for the ingestion of a potentially poisonous material in this same period of time. One of the major problems is the fact that most household products sold to the public are so poorly labeled that the nature of their ingredients remains unknown except to the manufacturer. Because of this real and potential threat, many states, cities, and hospitals have formed poison centers. The primary purpose of these is to give information rapidly to physicians and lay people concerning the contents of various commercial products and to recommend specific therapy where this is available. A secondary but equally important purpose is to acquire data and knowledge of the distribution, type and toxicity of various poisons and to act as a source of information for the prevention of poisonings through better education of medical and lay personnel. Such a center was put into operation late in 1957 at the Medical Center of the University of Michigan and the present report details the experience from January 1, 1958 to January 1, 1959.

The Poison Center is located in the Emergency Suite of the Outpatient Building of the Medical Center. At least one resident physician is available at all times to answer telephone calls requesting information and to treat any patients that may enter the hospital who have ingested or who have been exposed to poisonous material. Each resident is carefully oriented concerning his duties before serving in this capacity. A large library of information is kept in the center. Of perhaps greatest usefulness is the availability of a list of commercial products indexed by their trade names, their manufacturer, as well as by their contents. The toxicity of the various ingredients are indicated and the therapy for these when they are toxic. The several bound volumes which are in the library are supplemented by a card index supplied from the National Clearinghouse for Poison Control Centers in Washington, D. C. At approximately three- to four-month intervals, new cards are mailed to the center supplying a list of recently marketed commercial products, their contents, and the therapy indicated for ingestion of any of these products. The resident in addition has available for advice a list of senior consultants from the Departments of Pediatrics, Pharmacology, Internal Medicine and Industrial Medicine. Three of the nation's largest chemical manufacturers have also been very co-operative and have supplied a list of personnel who may be consulted.* These individuals are particularly interested in the problems of poisoning and have been most helpful when called upon for information. Finally, the Department of Botany of the University of Michigan has given valuable assistance in the identification of plants that children have eaten.

When a telephone call comes to the Poison Center, it is immediately directed to the attention of the resident on call. If a lay person is making the call, he is given information for emergency treatment only and is then directed to contact his physician. If a physician calls, which is the case about 70 per cent of the time, he is given more

From the Department of Pediatrics and Communicable Diseases, University Medical Center, Ann Arbor, Michigan.

*The Dow Chemical Company, Midland, Michigan.
E. I. DuPont DeNemours and Company, Wilmington, Delaware.
Eastman Kodak Company, Rochester, New York.

complete information regarding the toxicity of a product which may have been ingested as well as symptoms and suggested treatment for the situation as it exists at that time.

TABLE I. CALLS REQUESTING INFORMATION CONCERNING POISONING

	0-1 Years	1-3 Years	3-6 Years	6-15 Years	Adult	Total*
Medications	4	58	14	3	13	109
Cleaning and polishing agents	5	43	3	0	3	57
Cosmetics	5	29	2	0	0	39
Pesticides	2	17	5	0	2	28
Hydrocarbons and related products	1	12	7	1	0	24
Plants	0	12	5	0	0	19
Miscellaneous	7	35	5	3	6	69
Totals	24	206	41	7	24	345

*Age was not indicated in a few instances so total is greater than for separate age groups.

During the year 1958, the Poison Center received a total of 345 telephone calls requesting information concerning poisoning. In addition to these, there were a large number of calls by individuals requesting information of a more general type but not concerned with actual poisoning. Examples of these latter calls are: the method of identification of poisonous mushrooms and plants, the advisability of using certain pesticides on vegetables and fruits, and a request regarding the advisability of using certain ingredients in industrial manufacture. Table I shows the breakdown of the 345 calls including the age of the person and the major classifications of the products involved.

In addition to the telephone calls, a total of forty patients were treated in the Poison Center for the ingestion of poisonous or potentially poisonous substances. It is of interest to note that out of the large number of calls, only twenty-four required making contact with the manufacturer of a specific product for further information regarding its contents. Eleven of these twenty-four calls were concerning cosmetics and nine concerned cleaning agents. These figures undoubtedly reflect the frequency with which new products in these categories are sold to the public and about which the Poison Center had not received complete information up to that time. A new index card is made for all such calls regarding new products, and a copy of this is then sent to the Clearinghouse in Washington, D. C., so that this information may then be forwarded to other poison centers throughout the country.

A breakdown of some of the general classifications follows:

Commonest medications:
- salicylates—26
- sedatives—18
- cathartics—4
- vermifuges—4
- thyroid—4

Commonest hydrocarbons and related products:
- kerosene—6
- turpentine—5
- lighter fluid—4
- gasoline—4

Commonest among the miscellany:
- pencils, crayons, ink—8
- paints—8
- thermometer fluid—6
- paste and cements—5

Although all calls were not routinely followed as to the eventual outcome, only one death is known to have occurred. This was due to poison mushroom ingestion by a child in which the Poison Center was not informed until approximately 12 hours after symptoms had been present.

The center was consulted six times regarding suicide attempts by adults using sedatives or tranquilizers. None of these resulted in a fatal outcome.

An analysis of the figures collected during 1958 confirms the finding of other poison centers and reports by the National Clearinghouse for Poison Control Centers.[1] Medicines were by far the most numerous offenders. It was a disconcerting finding that a disproportionately high percentage of the number involved were children of physicians. Within this large group, salicylates continued to be the major item. One of the most critically ill infants had been given an overdosage of aspirin as a result of confusing instructions by the doctor who was consulted by telephone. According to the mother of this patient, she was not told the proper dosage and had used 5-grain tablets repeatedly during the night for fever in her ten-month-old girl. The second most common classification of poisonings was the large group of cleaning and polishing agents. As with medications, the majority of these poisonings occurred in the home and usually because the substance was easily available to the young child. Although cosmetics seldom contain very toxic agents, they did constitute the third most frequently encountered group of substances ingested.

The age group most frequently involved in all types of poisoning was from one to three years. It should be emphasized that this is the age span which is the most difficult to educate. It is also

the group which is the most uncritically inquisitive, and not only examines things by sight and touch but also instinctively by taste.

These facts point out some important preventive measures that can be brought to the attention of the public. Since a very high percentage of poisonings occur in the preschool child, the physician who cares for this age group is in an advantageous position to act as a source of education to parents. This can best be accomplished by constant repetition of certain principles and should be as important a part of prophylaxis as immunizations against the preventable infectious diseases and may start at the same time. Some of the more important principles are listed as they might be presented to parents.

1. Keep all drugs, known poisons and other chemicals out of reach of children, or locked up.

2. Discard old medicines and other chemicals in such a manner that they cannot be reached by children or pets.

3. Read all labels and carefully follow directions.

4. Do not store potentially poisonous substances in food or beverage containers.

5. Do not take or give medicines in the dark.

6. Give medications only with the direction of a doctor and make sure specific instructions are obtained from him. (Although this is true at all ages, it is particularly true in the child where overdosage is a greater threat.)

7. Remember that many apparently harmless substances such as aspirin, sleeping pills, metal polishes, and other cleansing agents, may not be labelled sufficiently to indicate their potential danger. Therefore, all such items should be kept in safe storage.

8. When using cleaning fluids adequate ventilation is important, and when using pesticides care must be exercised to avoid contaminating food as well as avoiding inhalation or excessive contact on the skin.

Summary

The experiences of the University of Michigan Poison Information and Therapy Center for 1958 are outlined. The data collected emphasize the commonness of accidental poisonings in children and that in many instances the agent ingested was not considered by the parents to have any potential danger. Some principles to follow to prevent poisonings are given with the hope that they will serve as a useful tool and a reminder to all physicians to keep the problem constantly before the public.

Reference

1. Cann, H. M., Neyman, D. S. and Verhulst, H. L.: Control of accidental poisoning—a progress report. J.A.M.A., 168:717, 1958.

TREATMENT OF ACNE VULGARIS

(Continued from Page 1261)

provides the physician with an alternate dosage form to Dermasulf liquid which should logically extend the clinical usefulness of this product.

References

1. Chardon, R.: Treatment of acne by means of polythionate solution in a penetrating base. Theraplix, Paris (Jan. 6) 1950.
2. Combes, Frank C.: Colloidal sulfur: Some pharmacodynamic considerations and their therapeutic applications in "seborrheic dermatoses." New York State J. Med., 46:401 (Feb. 15) 1946.
3. Delaney, James R. and Mahood, John J.: Clinical evaluation of polythionates in dermatology. J. Michigan M. Soc., 50:1236 (Nov.) 1951.
4. Finnerud, Clark W. and Riddell, J. Murray: Polythionic acid in the therapy of acne vulgaris and seborrheic dermatitis. Arch. Derm. & Syphil., 65:373 (March) 1951.
5. Goodman, L. and Gilman, A.: The pharmacological basis of therapeutics, 2nd. Ed., page 1118. New York: The Macmillan Company, 1955.
6. Moller, Poul and Lomholt, Svend: Effects of sulfur on the skin. Clinical and experimental observations with an aqueous solution of polythionic acids ("Polythiosol"). Acta Dermat., 26:169, 1945.
7. Moller, Poul and Pedersen, Arne: The bactericidal and growth-inhibiting effect of polythiosul and euthiosul on *Staphylococcus aureus*. Acta path. et microbiol. scandinav., 21:596, 1944.
8. Neesby, Torben E., Koff, Arnold and Pircio, Anthony W.: A preliminary note on the absorption of sulfur and the polythionates into intact skin. J. Am. Pharm. A., Sci. Ed., 44:383 (June) 1955.
9. Neesby, Torben E., Pircio, Anthony W. and Grattan, Jerome F.: The absorption of sulfur compounds from externally deposited polythionates by the skin of the rat. J. Am. Pharm. A., Sci. Ed., 46:263 (April) 1957.
10. Scott, A.: The behavior of radioactive sulfur after its external application to the skin. Brit. J. Dermat., 69:39 (Feb.) 1957.

A Close Look at Partial Blindness

By R. T. Blackhurst, M.D.
Midland, Michigan

THERE are 400,000 three- and four-year-old children in Michigan who are two years from kindergarten and their first eye examination. By that time, 15,000 of them will be partially blind, and this in many cases will be a permanent situation.

These are the facts and the reasons are simple. Most preschool children are never seen by an ophthalmologist. If the pediatrician or general practitioner who cares for them neglects to check eyes, most serious eye defects will go undetected until a technician or teacher discovers them during routine school screening.

Most of you are familiar with vision screening as it is carried on in the school system. More recently, however, screening of three- and four-year-olds has been done in Michigan and several other states. Facts indicate that nearly all such children can be adequately and easily screened using the illiterate E. They further demonstrate that 5 or 6 per cent of the children in this age group fail the test and require a more complete ocular examination. In carefully controlled surveys it is further shown that about 90 per cent of those who obtain a professional eye examination actually need eye care.

Duplication of Effort

Five per cent doesn't seem to be a large number, particularly when compared with the thousands of dollars being spent by government agencies to foster a screening program. However, 15,000 partially blind preschool children represent a more formidable group. This is particularly so if we think of them as students whose ability to study and learn has been sharply reduced, or as adults who will not be industrially employable or acceptable to the Armed Services, and who will not be able to hold many technical and professional positions. Yes, 15,000 partially blind three- and four-year-old Michigan children represent a problem worth thinking about.

The Michigan State Health Department, and more particularly the Vision Section, has done a tremendous job in establishing and promoting school vision screening and more recently preschool vision screening. They have demonstrated, and are continuing to demonstrate, that the problem of partial blindness exists in a frightening number of children. Even the most ardent anti-socialist can no longer deny the great benefit Michigan school children have received from vision screening in the past five years. Nonetheless, screening is actually an expensive duplication of effort.

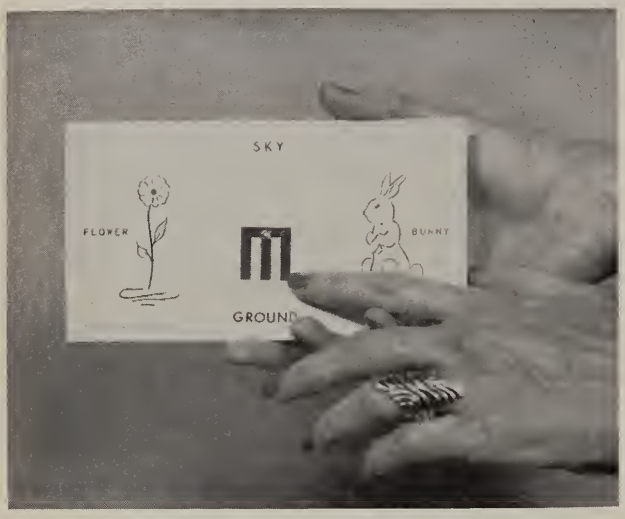
Now that the need for early visual examination is obvious, I would like to feel that the general practitioners and pediatricians will be "screening" preschool eyes as a routine and essential part of the physical examination. Perhaps large scale vision screening may then be remembered as a "vigilante" movement that worked well though expensively until "law and order" could be established in the physician's office.

Preschool screening is difficult on a large scale. These children do not represent a captive group. There is no one common meeting place for children of this age. For this reason alone, I believe it will fail as a long term program. Very similar is the mass non-industrial glaucoma screening which is certainly doomed unless the efforts of interested and energetic groups are able to persuade the general practitioner to use the tonometer.

Both of these procedures are proper and vitally important segments of a complete examination. Vision should be checked early in life, and tonometry should be routine on all persons over forty years of age. Careful attention to either procedure will yield more pathology in a year's time than constant use of the stethescope.

The people from the State Health Department work tirelessly to train technicians, carry on screening programs, and gather data. The data collected is carefully studied, reviewed and compared with information gathered from other similar screening programs. Most of the work is done with a dual purpose in mind. Certainly there is a profound interest in preventing partial blindness

by discovering eye defects early, but just as sincere is the interest in bringing the facts before the medical profession. It is the wish of all who participate in screening that we, as practicing physicians, recognize the problem and begin checking eyes in our offices. I believe, as they do, that once a doctor begins checking vision the results will shortly justify permanent continuation of the program.



Above is shown the home teaching device which the Vision Section of the Michigan State Health Department uses in screening three- and four-year-old children. The card has a movable E in the middle with four directions indicated: sky, flower, bunny, and ground. The object is to have the child become familiar with words that will help him tell the direction the E points. Directions for use of the card are printed on the back. It has been a great help in preschool screening, and the cards are available to physicians on request.

Examination Not Time Consuming

We don't feel that preschool vision testing should represent an insurmountable task to any general practitioner or pediatrician. A moment's observation and a comparative evaluation of vision in each eye will cover the essentials.

I should ask that each of you do a complete ocular examination on every child. This to include a careful history, a thorough check of ocular motility in the cardinal positions, a cover test, and a measurement of near point of convergence. If this examination were then to include a careful funduscopic examination using a cycloplegic, no Michigan children would enter the school system with undetected partial blindness. Such is the procedure you were taught in medical school. This was to be an essential portion of the children's examination. Yet many of you have since fallen away from the ideal. Many of you have not retained even the most simple form of ocular examination as a routine procedure.

Let's be practical about this. I am a private practitioner as are most of you. We all cut some corners and I am certain that most of you do not do a complete and ideal ophthalmological examination. However, I hope that none of you completely disregard the eyes of preschool children. I hope that all of you will find time to follow a simple formula for prevention of partial blindness.

We know that certain familial conditions affect the eyes, and that certain eye diseases are inherited. All are aware that many cross-eyed parents have cross-eyed children, and that farsighted or nearsighted parents are prone to have farsighted or nearsighted children. It would seem therefore, that a history of eye problems or related diseases should be elicited from every parent of a preschool child. This need not be lengthy.

It requires only a moment to observe a child for sign of obvious eye defects and to have the youngster follow a pocket flashlight into the cardinal positions of gaze. If a crossed eye of any type or degree, whether constant or intermittent, is noted, the child should be immediately referred to an ophthalmologist. No amount of crossing is normal in a child of any age. We know these children don't get well by themselves—they all need treatment.

Next let's check the vision in each eye. This is most easily accomplished using the E chart. Handy E pads*, in prescription pad form, with a 20/200 E on each sheet are available through nearly all supply houses. One such sheet can be given to each mother just as you would give a prescription. We find it best to give such an E to the mother of a three-year-old and ask her to teach the child the E game before coming back to the office for the next scheduled examination or "booster shot." Once the child has learned the game, you or your office assistant can quickly determine the presence or absence of normal and equal vision in each eye. If the child readily sees the 20/40 E with each eye the examination may be terminated. There is little to be gained by attempting to have the three- or four-year-old demonstrate 20/20 vision. If each eye sees 20/40 readily, you may rest assured that amblyopia is not present and you

(Continued on Page 1363)

*Manufactured by Ophthalmix, LaGrange, Illinois. Available through most optical or surgical supply houses.

Revision of Cause of Death Classification for Neonatal Deaths

By Joseph G. Molner, M.D., James T. Oliver and Charles P. Anderson, M.D.

Detroit, Michigan

OVER 75 per cent of our current neonatal deaths are inadequately explained. Terminal causes are given to explain these deaths; and, since an adequate system of classification was not available, no attempt has been made to elicit the "morbid condition which initiated the train of events ultimately resulting in death."[1] Such vague categories as immaturity, postnatal asphyxia and atelectasis, and birth injuries therefore become the convenient wastebasket categories into which three-fourths of our neonatal deaths are routed.

TABLE I. CAUSES OF NEONATAL DEATHS OCCURRING IN DETROIT

Cause	1956		1957		Explanation
	No.	Per Cent	No.	Per Cent	
Immaturity	528	42.5	502	37.7	In 1956, 76.6% and in 1957, 75.5% of all neonatal deaths were inadequately explained.
Asphyxia and atelectasis	323	26.0	333	25.0	
Birth injuries	101	8.1	170	12.8	
All others	291	23.4	425	24.5	
Total	1,243	100.0	1,330	100.0	

Diseases of early infancy have been among the ten leading causes of death for a number of years and ranked third among the causes of death occurring in Detroit during 1957. Over 80 per cent of the deaths due to these causes occurred among neonatals—infants under twenty-eight days of life at time of death. The largest group of causes of these diseases of early infancy are those discussed above. Table I and Figure 1 clearly illustrate the problem.

The underlying causes of neonatal death may be attributed to three basic conditions or any combination of the three. These conditions are:

1. Genetic or developmental, which the physician records as being due to congenital malformaring postnatally in otherwise viable or normal newborns. These conditions are usually indicated as due to some infection, to accident, or other cause.

2. Abnormalities of pregnancy or delivery, resulting in deaths attributed to postnatal asphyxia and atelectasis, birth injuries, or immature birth.

3. Environmental stresses or accidents occurtions, to hemolytic disease of newborn, and so forth.

The classification system now in use satisfactorily explains the genetic or developmental and postnatal forces, but is inadequate in explaining abnormalities of pregnancy or delivery as an underlying cause of neonatal death. Abnormalities of pregnancy or delivery as a cause of stillbirth are fairly well described in the "Supplementary Classifications for Special Admissions, Livebirths, and Stillbirths" of the *International Classification of Diseases.* Classification of the causes of stillbirth are shown in Appendix I.

A great deal of attention has been focused on the factors surrounding the deaths of neonatals during the first week of life and deaths in utero of apparently viable fetuses. Careful scrutiny of reasons given for perinatal deaths and attempts to get comparability between deaths of liveborn infants and those lying *in utero,* emphasized the *inadequacies of neonatal death classifications.* Perinatal mortality studies from death and stillbirth certificates at the present time have only one area of comparison—the genetic or developmental pa-

Dr. Molner is Commissioner of the Detroit Department of Health and Registrar for the City of Detroit. Mr. Oliver is Principal Statistician of the Detroit Department of Health. Dr. Anderson is Deputy Commissioner, Medical Services, of the Detroit Department of Health.

INFANT DEATHS OCCURRING IN DETROIT DURING 1957 (PROVISIONAL)

Age at Time of Death

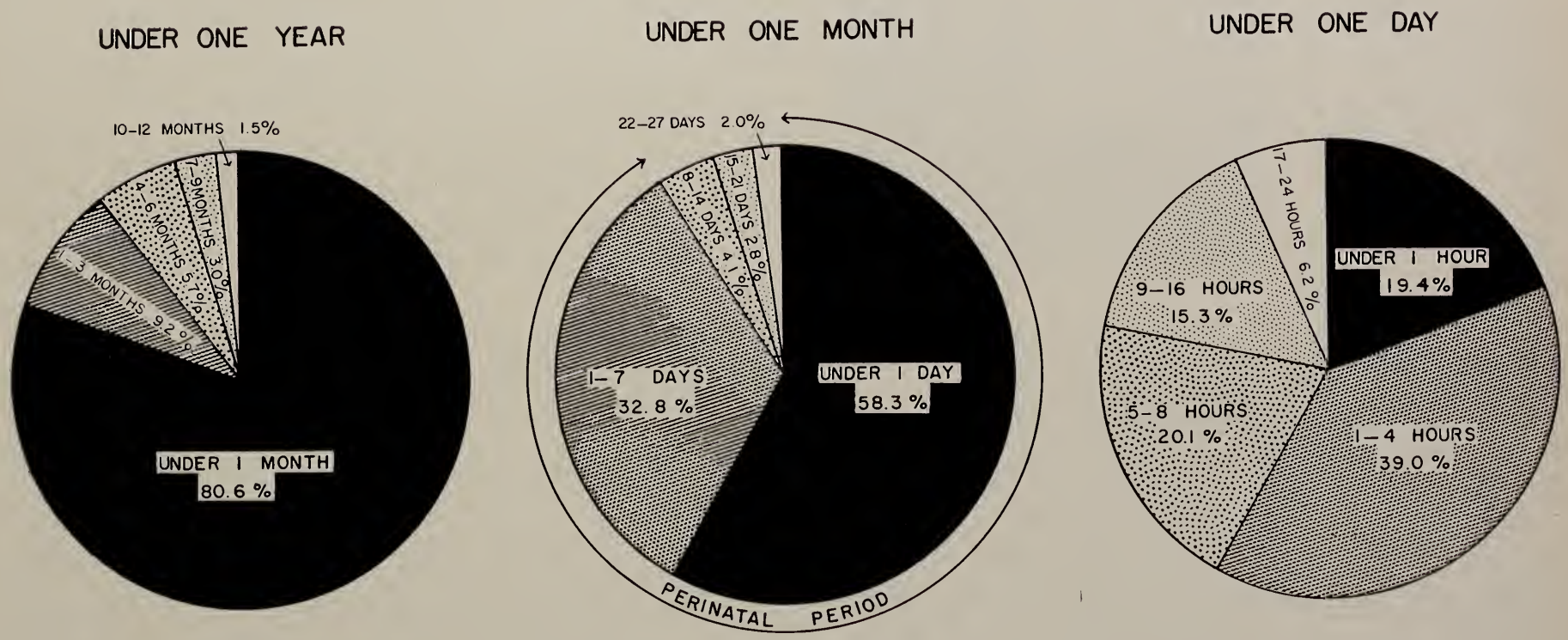


Fig. 1

thologies leading to death. Maternal pathology, used to describe the cause of intra uterine death is not available for comparison with early neonatal deaths. Environmental stresses or accidents as causes of neonatal death cannot apply to fetal death.

The Detroit Department of Health will initiate a new classification system for all neonatal deaths occurring after December 31, 1958. The new classification, it is hoped, will markedly reduce the number of unexplained neonatal deaths and will provide two major areas of comparison with causes of fetal death. The proposed change in classification is in no way a radical one. No drastic revision or inclusion of new non-comparable data is anticipated. The only change that will be made is to incorporate into the existing classifications maternal factors responsible for those terminal states which are now being used to explain fetal deaths. At present these classifications are used to describe the conditions with only one sub-classification; namely, with or without mention of immaturity. These will be replaced by sub-classifications from data now used to explain fetal deaths. The changes would assume the form shown in Appendix II.

Two complications of the underlying cause of death and two associated conditions are at present being routinely incorporated into punched cards by the Detroit Department of Health. More detailed descriptions of maternal causes responsible for birth injuries, asphyxia and atelectasis, and immaturity will be taken from the classification of stillbirths and recorded as a complication or associated condition. A number of physicians are now recording on neonatal death certificates maternal problems which may aid in explaining the death of the newborn. While such material has not been adequately used in the past, with the new classification this type of recording will be invaluable. All physicians are urgently requested to record, whenever known, such complications of pregnancy or labor the physician feels might help in explaining the conditions leading to the death of the infant.

It is realized that many neonatal deaths cannot be adequately explained. The physician is not expected to record an explanation for a death if he does not know the cause. In many instances, however, such information is available or may be obtained in a review of the case history. Deaths due to postnatal asphyxia, birth injuries, and immaturity unqualified, not otherwise explained, will be queried. It is hoped that physicians so queried will endeavor to obtain such additional data as may reasonably explain the terminal causes described.

Reference

1. Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955 Revision, Volume 1. World Health Organization, 1957.

APPENDIX I. CAUSES OF STILLBIRTH

Chronic disease in mother
- Syphilis
- Tuberculosis (any form)
- Diabetes mellitus
- Chronic disease of circulatory system
- Chronic disease of genito-urinary system
- Other chronic disease

Acute disease in mother
- Typhoid fever
- Influenza
- Pneumonia (any form)
- Other acute respiratory disease
- Other acute disease or condition

Diseases and conditions of pregnancy and childbirth
- Pregnancy interrupted by self or other person for non-therapeutic purposes
- Ectopic gestation
- Hemorrhage without mention of placental condition
- Toxemia with convulsions during pregnancy or labor (eclampsia)
- Other toxemias of pregnancy
- Infection (ante- and intra-partum)

Absorption of toxic substance from mother
- Narcotic
- Quinine
- Other toxic substance

Difficulties in labor
- Difficult labor with abnormality of bones of pelvis
- Difficult labor with disproportion, but no mention of abnormality, of pelvis
- Difficult labor with malposition of fetus
- Difficult labor with abnormality of forces of labor
- Difficult labor with operative delivery
- Difficult labor with abnormality of organs or tissues of pelvis
- Difficult labor without mention of underlying condition

Other causes in mother
- Fall
- Other accident or violence
- Overexertion
- Other and ill-defined causes in mother

Placental and cord conditions
- Cord condition without mention of placental abnormality
- Placenta previa
- Premature separation of normally implanted placenta
- Placenta previa with cord abnormality
- Premature separation of normally implanted placenta with cord abnormality
- Placental infarct
- Other abnormality of placenta and cord

Birth injury
- Birth injury with abnormality of bones of pelvis
- Birth injury with abnormality of organs or tissues of pelvis
- Birth injury with disproportion but no mention of abnormality of pelvis
- Birth injury with malposition of fetus
- Birth injury with abnormality of forces of labor
- Operation causing mutilation of fetus
- Other operation for delivery
- Birth injury with difficult labor but without mention of underlying condition
- Birth injury due to other unspecified cause

Congenital malformation of fetus
- Anencephalus
- Hydrocephalus
- Spina bifida
- Other malformation of the central nervous system
- Malformation of the cardiovascular system
- Malformation of other specified system or part
- Monster
- Other and unspecified malformations

Diseases of fetus, and ill-defined causes
- Syphilis
- Infection other than syphilis
- Erythroblastosis
- Other cause originated in the fetus
- Maceration, cause not specified
- Other ill-defined cause
- Cause unspecified

[1]Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955 Revision, Volume 1, World Health Organization, 1957.

APPENDIX II. PROPOSED REVISION OF NEONATAL DEATH CAUSE CLASSIFICATION FOR SELECTED CAUSES

Present Classification of Deaths Due to Birth Injury, Asphyxia and Atelectasis and Immaturity[1]

Intracranial and spinal injury at birth
- Without mention of immaturity
- With immaturity

Other birth injury
- Without mention of immaturity
- With immaturity

Postnatal asphyxia and atelectasis
- Without mention of immaturity
- With immaturity

Proposed Change

Intracranial and spinal injury at birth
- Due to chronic disease in mother
- Due to acute disease in mother
- Due to diseases and conditions of pregnancy and childbirth
- Absorption of toxic substance from mother, trauma, or overexertion (including deaths due to analgesia or anesthesia given to mother)
- Difficult or abnormal labor
- Cephalo-pelvic disproportion or malposition
- Cord condition
- Placental condition with or without mention of cord
- With mention of operative procedure
- Not otherwise stated or "with immaturity" as only explanation

Other birth injury
- Due to chronic disease in mother
- Due to acute disease in mother
- Due to diseases and conditions of pregnancy and childbirth
- Absorption of toxic substance from mother, trauma, or overexertion (including deaths due to analgesia or anesthesia given to mother)
- Difficult or abnormal labor
- Cephalo-pelvic disproportion or malposition
- Cord condition
- Placental condition with or without mention of cord
- With mention of operative procedure
- Not otherwise stated or "with immaturity" as only explanation

Postnatal asphyxia and atelectasis
- Due to chronic disease in mother
- Due to acute disease in mother
- Due to diseases and conditions of pregnancy and childbirth
- Absorption of toxic substance from mother, trauma, or overexertion (including deaths due to analgesia or anesthesia given to mother)
- Difficult or abnormal labor
- Cephalo-pelvic disproportion or malposition
- Cord condition
- Placental condition with or without mention of cord
- Birth injury or mention of operative procedure
- Not otherwise stated or "with immaturity" as only explanation

Immaturity, unqualified
- Due to chronic disease in mother
- Due to acute disease in mother
- Due to diseases and conditions of pregnancy and childbirth
- Absorption of toxic substance from mother, trauma, or overexertion (including deaths due to analgesia or anesthesia given to mother)
- Difficult or abnormal labor
- Cephalo-pelvic disproportion or malposition
- Cord condition
- Placental condition with or without mention of cord
- Birth injury or mention of operative procedure
- Not otherwise stated.

[1]Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 1955 Revision, Volume 1. World Health Organization, 1957.

Effect of Antiperistaltic Gut Segments on Intestinal Emptying Time

By J. M. Hammer, M.D., P. H. Seay, Ph.D., R. L. Johnston, D.V.M., E. J. Hill, M.D., F. Prust, M.D., and R. Campbell, M.D.

Kalamazoo, Michigan

IT HAS long been considered that reversal of an intestinal segment is fatal to animals. Studies by the authors, however, have failed to confirm this. They have shown that the entire duodenum in animals could be reversed and not necessarily be fatal. In this study, they have shown that under certain circumstances a reversed segment of bowel may actually be beneficial to the animal. This paper deals with the beneficial effects produced under certain conditions by a reversed segment of bowel.

Six series of animals have been operated upon: three animals in which two-thirds of the small bowel was removed, no segment was reversed, and the animals fed an ordinary laboratory diet; three animals in which 75 per cent of the small bowel was removed, no segment was reversed, and the animals fed an ordinary laboratory diet; three animals in which 80 per cent of the small bowel was removed, no segment was reversed, and the animals fed an ordinary laboratory diet; six animals in which 80 per cent of the small bowel was removed, no segment was reversed, and Pamine (epoxytropine tropate methylbromide) was added to the diet as a drug control; six animals in which 80 per cent of the small bowel was removed, a short segment was reversed, and the animals fed an ordinary laboratory diet; six animals in which 90 per cent of the small bowel was removed, a segment reversed, and the animals fed an ordinary diet.

In the series in which two-thirds of the small intestine was removed, the animals all survived. The animals with 75 and 80 per cent of the small intestine removed and no segment reversed all died within three months of cachexia. In the drug control series in which 80 per cent of the small intestine was removed and Pamine added to the diet, four of the six animals survived, but proved difficult to maintain because of side effects from large doses of the drug. In the two series in which 80 and 90 per cent of the small intestine was removed and the distal inch of the remaining small bowel was reversed and reinserted in an antiperistaltic manner, nine of the twelve animals have survived for two years and maintained weight.

Apparently this short segment of distal intestine inserted into the intestinal tract in an antiperistaltic manner acts as a valve and produces a marked delay in the emptying time of the intestine, with an accompanying marked hypertrophy and dilatation shown on x-ray and at autopsy. The hypertrophy and dilatation permits the digestion of food to a degree that enables the animal to absorb enough of the digested food to maintain himself. Blood chemistry remains normal.

It is of interest to note the possibilities of such a procedure in human mesenteric thrombosis, trauma, regional ileitis, tumors, adhesions and fistulae. Some of these mesenteric thromboses involve 80 to 90 per cent of the small bowel and often part of the large bowel. Such patients, even if they survive their definitive surgery, usually die within a matter of months of diarrhea, starvation and cachexia. Conceivably, a reversed segment in such patients might produce a delay in the emptying time of the human intestine as it has in dogs. With intact digestive enzymes in the stomach, liver, and pancreas and the delayed emptying time, maintenance of weight might be achieved.

Conclusions

Animals with 80 to 90 per cent of the small bowel removed survive and maintain weight if one to two inches of the distal segment of remaining bowel is reversed and reinserted into the gut in an antiperistaltic manner.

Presented at the seventh annual meeting of the Michigan Chapter of the American College of Surgeons, Detroit, March 10, 1959.

100 Maple Street (Dr. Hammer)
Parchment, Michigan

Detroit Surgical Association

Meeting of November 25, 1958

EXPERIMENTAL STUDIES WITH LOW OXYGEN FLOW RATES IN THE BUBBLE OXYGENATOR*

By Luis A. Tomatis, M.D., Rodman E. Taber, M.D., F.A.C.S., Conrad R. Lam, M.D., F.A.C.S. and Edward W. Green, MD.

Division of Thoracic Surgery and Pediatric Cardiology, Henry Ford Hospital
Detroit, Michigan

An oxygen-blood flow ratio of 10:1 was originally employed with the bubble oxygenator. There has recently developed an interest in the avoidance of excessive intra-arterial oxygen tensions due to over-oxygenation of the blood. Extracorporeal oxygenation which produces such a situation, is unphysiologic and may constitute a hazard to the perfused subject. Arterial and venous oxygen. carbon dioxide and pH determinations were done with various perfusion and oxygen flow rates in this series of experimental cardio-pulmonary bypasses. These studies demonstrate that entirely satisfactory oxygenation can be obtained with oxygen-blood flow ratios as low as 2:1 at 70 cc. per kilogram perfusion rate. Although higher oxygen flow rates are capable of delivering more oxygen to the perfused subject, there is no further increase in oxygen utilization. Carbon dioxide removal appears to be adequate with these low oxygen flow rates. Debubbling of blood oxygenated in this manner is simplified, thereby resulting in greater perfusion capacity of the equipment. This low oxygen flow method has been applied to clinical perfusions with satisfactory results.

*Supported by a grant from the Michigan Heart Association.

Meeting of January 27, 1959

METHYLENE BLUE AS A DIAGNOSTIC AGENT IN THE STUDY OF MYOCARDIAL METABOLISM

By Alexander Zuckerbraun, Ph.D., M.D., L. Moggi, M.D., Prescott Jordan, M.D., and Lyle Jacobson, M.D.

Surgery on the aortic valve has been handicappd in the past by the fact that the coronary artery ostia were exposed to the air resulting in air embolism. This could be prevented by stopping the heart with any of the cardioplegic agents. However, open surgery on the aortic valve usually required more time than could be tolerated safely by the heart even at standstill. It has been shown that perfusion of the coronary system was possible by retroperfusing through the coronary sinus. This permitted blood to flow out of the coronary artery ostia thus preventing air embolism. The question of supplying nutrition to the myocardium remained to be evaluated. Perfusion studies in normal direction and in a retrograde manner were performed and a 5 mg % drop in blood glucose was found to occur but less than in the usual direction. Since blood glucose is variable and the experimental error is close to the measured difference, we decided to use a more delicate method. Methylene blue was diluted in saline and the maximum absorption in the ultra violet was measured. Catheters were placed in the left coronary artery ostium and the coronary sinus of isolated fresh dog hearts. Methylene blue was perfused and the absorption was measured of the solution from the low side. After oxidation the absorption was remeasured. A rise in absorption proved the existence of reduced methylene blue and hence the ability of the heart to use same. With this technique it was shown that there is greater reduction of methylene blue by retrograde perfusion as compared to the normal direction.

Meeting of February 24, 1959

PROGNOSIS IN CARCINOMA OF THE THYROID: A CLINICO-PATHOLOGIC STUDY OF ONE HUNDRED CASES

By Charles Kouchy, M.D., Klaus Hergt, M.D., O. A. Brines, M.D. and C. J. France, M.D.

One hundred cases of carcinoma of the thyroid from seven Detroit area hospitals have been reviewed to determine the role of histologic type. age and sex in relation to prognosis. In view of statements in the literature as to the relatively benign course of the papillary forms, particular attention was given in histologic grading as to degree of papillary change. Forty-three per cent of cases presented some degree of papillary involvement, forty-seven per cent were of follicular and 10 per cent undifferentiated pattern. Females predominated in a ratio of 2:1 in all forms except the undifferentiated, in which this ratio was reversed. Only 60 per cent of patients under the age of forty were found to have papillary carcinoma, the remainder having the more malignant follicular carcinoma.

Evaluation of end results reveals that in the patients under forty years of age the disease process was not surgically curable in 13.5 per cent with papillary carcinoma and 44 per cent with follicular

carcinoma, whereas in patients over forty the surgical failure rate was 38 per cent in papillary, 77 per cent in follicular and 100 per cent in undifferentiated carcinoma. It is concluded that, although papillary carcinoma carries a better prognosis that the follicular and undifferentiated forms, the disease does have significant lethal potential. It is further pointed out that the younger age groups are not immune to non-curable cancer of the thyroid. A plea is made for earlier and more aggressive surgical management of carcinoma of the thyroid and its nodular disease precursors.

Meeting of March 24, 1959

EFFECT OF OPERATIVE PROCEDURE ON THE GASTRIC ACIDITY OF ANESTHETIZED CHILDREN

By Manuel Fernandez, M.D.

The relation between the adrenal cortex and the gastric secretory activity is not entirely clear. That stress, both non-surgical and surgical increases the plasma levels of 17-hydroxycorticosteroids is well documented. On the other hand, the effect of anesthesia and the operative procedure on gastric acidity is not known.

The possible parallelism between the known effects of anesthesia and surgery on the 17-hydroxycorticosteroids and the response of the gastic acidity under these conditions was investigated in children. Thirteen cases were used, the children ranging in age from three and one-half hours to nine years. Gastric aspirations were done: first during anesthesia and before the incision was made and second, after the skin was closed. The results as expressed in terms of buffer capacity and compared with the known standards of normal (using histamine) showed higher values of acidity after anesthesia than expected in the majority of cases and uniformly higher after surgery.

Although the series is small and lacks controlled studies, the results seem significant and timely in the current investigation of these hormonal relationships.

TRANSVENTRICULAR APPROACH TO AORTIC STENOSIS WITH A METHOD FOR CONTROLLING THE AORTIC PRESSURE

By Morris Asa, M.D., and James B. Blodgett, M.D.

The pathology and clinical course of aortic stenosis are reviewed. Average life expectancy is of twenty-three, nine, six and four months respectively in the last four of the five clinical stages.

Seventeen consecutive cases treated surgically at Grace Hospital, Detroit, fell respectively: eleven in Stage III; five in Stage IV; one in Stage V.

Ventricular Commissurotomies have been performed with the following adjunctive measures. A grooved perforator has been employed to make an oblique channel through the ventricular wall and facilitate passage of the dilator. Second, a tape threaded around the descending thoracic aorta and attached to a Rummel tourniquet has been found extremely useful in controlling aortic pressure during transient hypotension.

Among Stage III cases there has been one operative mortality due to cardiac hemorrhage, and one postoperative fatality due to fibrillation. In Stages IV and V, one postoperative death due to fibrillation and two operative deaths. In these two the guide wire failed to find the valvular orifice and a blind dilatation had to be carried out. Extensive calcification and deformity were found at autopsy.

The late results have been satisfactory in that survival and working capacity have been markedly increased.

Meeting of April 28, 1959

OPERATIVE CHOLANGIOGRAPHY

By Alfred N. Gerein, M.D. and Alfred M. Large, M.D.

In a series of 100 consecutive cases of operative cholangiograms, the common bile duct was explored in fifty-two. In forty-eight cases, the common bile duct was not explored. However, in eleven of the forty-eight cases, an indication for common duct exploration was present, but since the operative cholangiograms were normal, choledochotomy was avoided. In thirty-six of the fifty-two cases in which the common bile duct was explored, stones were removed. In ten of the thirty-six cases, a "T"-tube operative cholangiogram revealed a filling defect. On re-exploration of the duct system, additional stones were removed. In two cases, stones in the common bile duct were not suspected at the time of cholecystectomy, but an operative cholangiogram through the cystic duct revealed filling defects which proved to be stones.

Our experience indicates that operative cholangiography is a helpful procedure in biliary tract surgery and should be more widely used particularly in cases where the common bile duct is explored for stones.

RALPH W. SHOOK

As the page proofs for this August number were being edited, word was received of the death of Ralph W. Shook, M.D., of Kalamazoo, at his summer home near Traverse City on Sunday, August 9, 1959. Dr. Shook was Councillor from the Fourth District and Chairman of the Finance Committee of the Michigan State Medical Society.

HUMAN FLAILING

President's Page





President

Michigan State Medical Society

A lot of doctors have been doing a lot of talking about a lot of doctors in a lot of newspapers.

Self inspection, inventory, annual analysis, evaluations and audits are all desirable and necessary. Self castigation in public is not.

I have noticed that if one goes about publicly blaming himself for not being perfect and accrediting himself with not having solved problems (which may not have been his in the first place), one usually finds lots of people who will agree with him. They'll go further and point out a few things he did wrong which he might have forgotten to mention.

Patent it is that Medicine and its practitioners are not perfect, but few can question that Medicine is a swiftly advancing science supplying better care each day to more people. That isn't bad for a starter in life's sweepstakes.

Part of a definition of a profession which appeared recently read: "A profession . . . limits its services, and its claims to credit, to its own area of competence."

Example: The doctors of medicine should increase life expectancy—but it is not our medical responsibility to assure good housing for the aged. To abuse ourselves because we have not so assured is silly.

We should supply all manner of information to help people stay healthy but we needn't hang our medical heads in shame if the education of the people does not cause all of them to use *all* of our advices.

Let's admit purposefully to ourselves our human failings. Let's not exhibit, *publicly*, masochistic tendencies by indulging in human flailings.

Editorial

EDITORIAL POLICY

We are publishing a letter from the Michigan Society of Internal Medicine which we received as we were starting for the American Medical Association meeting in Atlantic City. Parts having to do with affairs of the Society have been deleted but we have retained the comments on State Society affairs. This letter suggests that THE JOURNAL of the Michigan State Medical Society be opened as a forum for expression of opinion on the Blue Cross-Blue Shield program and other controversial matters. It claims that our editorial policy has all been in favor of Blue Shield.

During the past eight or ten years, we have published papers, reports, comments on surveys, and other items which contain constructive criticism of Blue Shield, suggestions for liberalization, different coverage, and many other matters. For ten or twelve years we have devoted the June number to Blue Shield, publishing detailed reports of the operation. Editorial comments were included and we have also published letters to the Editor.

The editorial policy of THE JOURNAL has been justly favorable rather than destructive and has suggested many items which have ultimately been accomplished in the nature of constructive changes. In considering our editorial policy, we must remember apprehensions of future socializing activities almost universally expressed at the House of Delegates and the reference committees of the American Medical Association this year and for the past couple of years.

Blue Shield in Michigan (Michigan Medical Service) is an integral part of the State Medical Society. The House of Delegates plus the members of the Board of Directors is the corporate body which votes in the annual corporation meeting. That House of Delegates at the same general session of the Society also elects the Council of the State Medical Society. The two have the same basic status.

Michigan Medical Service was conceived and created by the Michigan State Medical Society to do a fundamental job of making medical and surgical care possible to our patients. At first, that was limited to $2,500 income which covered approximately 80 per cent of the population of the state. Primarily, the incentive was to benefit people who found difficulty in meeting medical and hospital expenses.

The California Physicians Service Board of Trustees is elected by the House of Delegates as is also Massachusetts, but neither of them is as closely coordinated as Michigan. Most other states have a requirement of a number of doctors of medicine on the board. In some areas, the sponsoring organization is private and, in a number of states, an effort is now being made to recapture or restore control of Blue Shield to the Medical Society. Wisconsin and Connecticut have been through that process. New York has a particularly difficult problem because of attempting to co-ordinate five different organizations. This "medical incentive and sponsoring" background extends very much around the nation.

The editorial policy of THE JOURNAL has always been constructive, to endorse and support our own activities, and programs have occasionally been suggested to remedy some of the faults and some of the misuses. Growing out of comments, reports, articles—the Michigan Blue Shield in the past two or three years has liberalized its services in many ways including out-patient and office surgery, consultations, diagnosis, laboratory and many others. In fact, the experience since the very first years has been one of liberalization to the point that the rates had to be raised. Committees have practically rewritten our Michigan program and expanded it, but those committees worked through the organization. By pointing out needed or suggested changes, by constructive work and criticism, they have accomplished and produced a program which has been held up throughout the United States as an example.

Now, other committees and other groups are criticizing. There are features in their suggestions which are constructive and areas where changes or modifications are needed. The history of Michigan Blue Shield has been one of suggestions of one sort and another, working together, and gradually building for a better structure. This is a human structure—a completely new feature in the philo-

sophy and mechanism of caring for our patients—it will probably never satisfy everyone completely, nor will it ever be 100 per cent perfect. It has been demonstrated time and again throughout the short history of Michigan Medical Service that constructive work and co-operative effort can and have contributed to a better vehicle of which the state of Michigan should be proud.

The communication in the "Letter to the Editor" column also reports an election and a resolution which could have serious portent. A small group (and this is not too small) of determined men with a predetermined voting policy could wreck what it has taken the State Medical Society thirty years to build. Repeated attention has been drawn to the fact that a relatively few determined people are required to accomplish a "coup"—as demonstrated by the several conquests in recent years accredited to the nazis, fascists, and more recently, the communists.

Our editorial policy always has been shaped upon the concept of supporting the Michigan State Medical Society and its objectives. In an attempt to do this, all editorials are put in preliminary form and copies sent to about seventeen persons well informed in affairs of the Society, with requests for suggestions, comments or corrections—after which the editorials are placed in final form. The Editor and the Publication Committee have confidence they are expressing the fixed policy of the Society. Those receiving preliminary copies of the editorials include all members of the Publication Committee, the President, President-elect, immediate Past President, Secretary, Speaker of the House, Council Chairman, Executive Director, Public Relations Counsel, the President and Executive Vice President of Michigan Medical Service, the State Medical Society Legal Counsel and any other member or committee chairman who may be of help because of his familiarity with the particular topic being discussed.

The editorials in THE JOURNAL actually do express, as far as possible, the official Michigan State Medical Society opinion. We have never turned down, and in fact have always welcomed, letters to the Editor. Many have been published including some very controversial ones. In such cases, however, we reserve the right to seek another letter expressing the other side, and that one exchange closes the controversy. The Editor would be glad to receive letters; he enjoys reading them and believes our members would, too.

HISTORY REPEATS

The apparent disaffection which has developed with the new Michigan Medical Service M-75 program is a repetition of conditions that have gone before. When Michigan Medical Service was first established, the primary objective of the Michigan State Medical Society was complete coverage in the home, office and hospital. It just happened that the first policy sold to Ford Motor Company involving about 70,000 subscribers was surgery in the hospital. The reason has been explained before. The Ford Motor Company was investing $1.00 a month for each employe and could get hospitalization for 60 cents, leaving 40 cents over. Michigan Medical Service thought it could cover surgery in the hospital for that 40 cents. That was a start. Soon thereafter, the second contract was sold to the Michigan Highway Department. It was the original "mutual health" concept for complete coverage on estimated rates (which proved far too low). The Highway Department was supposed to contract for medical service for two-thirds of its membership in order to make an insurance level. Actually, only a small percentage of subscribers were secured, and they probably should have been rejected.

Michigan Medical Service serviced this contract for a year and put the fund a half million dollars in the red. Complete coverage was then cancelled and only surgery continued. Through the years, there was constant demand for more liberalization, from subscribers and from doctors. The very first contract sold did not meet complete approval of the doctors and three counties and one large group in another refused to co-operate. They ultimately all serviced the program with reservations.

About twelve years ago, it was suggested that riders be written on the basic contract which would offer extended services even to the extent of full coverage in home, office and hospital, and these were prepared. Many riders were sold but not the one for full coverage. Changes, improvements and extensions came gradually. Groups here and there made suggestions, worked on committees and offered proposals which were ultimately incorporated. Through the years the Blue Shield program has been vastly modified from the original concept. For the last few years, committees in several areas of the State have been studying Blue Cross and Blue Shield programs, making requests

and suggestions. In September, 1956, The Council appointed a special committee known as the "Slagle Committee," and the House of Delegates appointed a special committee known as the "Owen Committee" to make a special study and to bring in a report to the House at the September 1957 session. These two reports, together with committee work in Detroit and elsewhere, resulted in a special session of the House of Delegates in April, 1957, which authorized an extensive opinion survey of the public and of the profession. The rest is history—recent history. Dedicated workers thought they had arrived at an ideal solution and so did the House of Delegates. The M-75 policy had some features which proved unworkable and some which were unpopular, but it had an inbuilt method to cure these defects. This program has now been sold, to approximately one and a third million people, but the older policies will probably have to be continued under new ratings until the new one can be readjusted. Work within the group will accomplish this; some is already accomplished.

Pre-instructed, non-co-operating factions and an unwilling attitude could bring about in Michigan just the situation for which the socializers have hoped. The British example would be followed and the American medical profession unwillingly would be nationalized through their own belief that "It Cannot Happen Here."

But it CAN!!!

THE JENKINS-KEOGH BILL

We presume all of our readers understand that the Jenkins-Keogh Bill will allow self-employed persons (doctors of medicine, lawyers, dentists, architects, engineers, etc.) to set aside (tax free) up to 10 per cent of their income not to exceed $2,500 annually or $50,000 in a lifetime, to establish a retirement fund. This would be taxable as used after the age of sixty-five. This Bill has passed the House of Representatives and is in the Senate. Observers predict it will die there because the Internal Revenue Department claims it will have a loss of $360 million income, should this Bill pass. We all know the passage of this Bill will cut down some income to the Federal Government immediately, but the percentage of loss is so infinitesimal that this excuse seems ridiculous. This Bill is pure and simple justice to self-employed persons. Their friends in industry are benefiting through a kindred program of setting up non-taxable retirement funds which provide handsome retirement incomes for key personnel in industry and for practically all salaried personnel.

The amount the government loses by not receiving income tax on fabulous retirement funds from industry can scarcely be estimated in comparison to the paltry $360 million attributable to this Keogh Bill. It is our firm belief in fact there will not be a loss of $360 million. People in this self-employed category are practically all in the income bracket of 50 per cent a year or above. The possibility of setting aside a few extra thousand dollars without tax would undoubtedly stimulate a great majority to work a little harder. Many of them would pay enough income tax to overbalance the loss the government would take in their specific case.

Let us consider a doctor or lawyer earning $32,000 who, under the Keogh Bill, would be allowed to set aside tax free, $2,500 a year for twenty years. He is entering the 50 per cent income tax section. He could earn and pay tax on an extra $3,200 before his present tax would be increased. The Senate has been denying a professional or self-employed person the right to provide for his future as his friends in industry are doing or as is being done for them. When the professional group wakes up to this fact, how soon will it be before they protest more vigorously by their balloting at the polls? The professional men are asking only for equal privilege. Many of them believe that if this privilege were granted, the government would increase its income tax revenue rather than lose $360 million.

THE 1959 ISSUES

By L. J. Bailey
Assistant Editor

A grievous question has been raised by the vote in Wayne County, as a result of which a virtually completely new set of delegates will be returned to the House in September. Great confusion will result in the House this Fall if the issues about M-75 are not clear.

Here in Wayne County, it was plain from a pre-convention study in 1958 that all the objections raised against the Principles could be boiled down to six. They were:

1. The method of payment of fees to non-participating physicians
2. The new income limits for service benefits
3. The uniform scale of fees which ignores the value

of unusual training and experience

4. The change in method of determining subscriber income

5. The extension of benefits to laboratory, diagnostic and radio-therapeutic procedures without adequate control of proper usage

6. The fees paid for individual service

At that time, a postcard poll had already registered general disaffection with M-75 with 411 replies in favor and 1,240 opposed to the plan. This result was widely quoted as a mandate to the Wayne delegates to repeal the Principles and evolve a new plan.

It is history that the 1958 House refused to do this. Even the Rereference Committee of the pre-convention Wayne caucus had not recommended this action. The upheaval in the election of the Wayne delegation reflects the sentiment, generally held in Wayne County, that the delegates should have obeyed the implied dictates of the postcard poll and gone to the 1958 House instructed to repeal the Principles.

The issues have become befuddled by the discussion which has ensued since this historic event. One editorial in the *Detroit Medical News* compared the situation in Wayne with the political issues debated at the time of Washington, Hamilton and Jefferson. But the parties of Washington and Hamilton were not irresponsive to the wishes of their electors. At that time, the issue was whether the *electors* would be comprised of a small group or of all the people.

We have no issue as to whom we shall permit to be electors. We do not even have the issue of reponsiveness to the electors. It was beautifully expressed by a *Detroit News* editorial writer in comments on the poll of Michigan citizens about the present plans for increased taxation. He said:

"The Governor and Legislature must, of course, give heavy weight to how the people feel about it; that's part of their responsibility. But part of it, as well, is to exercise their own good judgment on what best serves all Michigan, and to act accordingly. If they are not dictators, neither should they be puppets."

This point of view was held by this writer when he circulated his report called "That Blue Shield Affair" last September. And it was held by those others who stood out against the repeal of the Principles. It is, therefore, with no regret that he and, he is sure, those others who failed of re-election see themselves replaced in the 1959 House.

So the issue is not responsiveness to the will of the profession. Like any loyal opposition, the pro-M-75ers in this Society will conform to the wishes of the majority.

The issues are those enumerated above. They could have been resolved by submitting them to the orderly processes set up in the M-75 plan itself. Unwilling and impatient forces have dictated otherwise and it becomes clear that perhaps the real issue which will emerge will be whether Blue Shield shall become a pure indemnity plan or remain as it was intended—a service plan—with its present make-up of service to a certain income limit and indemnity at income limits beyond.

The delegates, statewide, are asked to enter the deliberations at Grand Rapids with the issues clearly in mind: service, indemnity, or combined. If service, what should be: the methods of payment; the income limits; the payment to specialists; the family income; the kind of benefits; the fee schedule.

To reinvestigate these questions may require that the road be retraced which all our committees have already laboriously traveled. Sooner or later, the issue will be met, not alone what the doctors want, but whether what the doctors want will meet the needs of the people.

The doctors will work under the plan evolved; the Delegates will be responsibe to the people for it.

BLUE SHIELD AND THE SERVICE IDEAL

Most Blue Shield Plans were born in the years 1938-43. Now, as many of them reach their twentieth birthdays, it is appropriate to recall why our profession created Blue Shield, and to find out where we seem to be going with it.

Medicine built Blue Shield *not* because the profession wanted to get into the insurance business. Certainly not! Medicine is in the business of providing medical care, and the profession had learned, twenty years ago, that it had to do something to help people pay for the unpredictable and unbudgetable costs of medical care.

So the profession created Blue Shield for the sole purpose of helping people to prepay for the medical services they will eventually need. Through Blue Shield medicine has carried its mission of service into the field of medical economics.

Because Blue Shield is primarily a public service, three out of four Blue Shield Plans provide most

of their benefits in terms of fully paid professional services, through the voluntary co-operation of their local Participating Physicians. These physicians have agreed to accept the Plan's payment as full payment for covered services whenever the income of the patient's family is within an agreed "income limit."

Even in the relatively few Blue Shield Plan areas where the physicians have made no such formal agreements with their local Plans, the Blue Shield payment schedules have usually been formulated by the local physicians through their professional societies, and many if not most of the doctors accept the Plan payment as full payment when the patient is in the moderate or lower income brackets.

Thus the service tradition of medicine is exemplified in Blue Shield, to the great credit of the profession. Patients like the "service benefit" idea because it gives them a dependable assurance that their Blue Shield subscription payments will actually cover the full costs of the services that are "covered" by their contracts.

Blue Shield is the most important element in prepaid medical care; and the service idea (based on the service tradition of medicine) is the heart of Blue Shield.

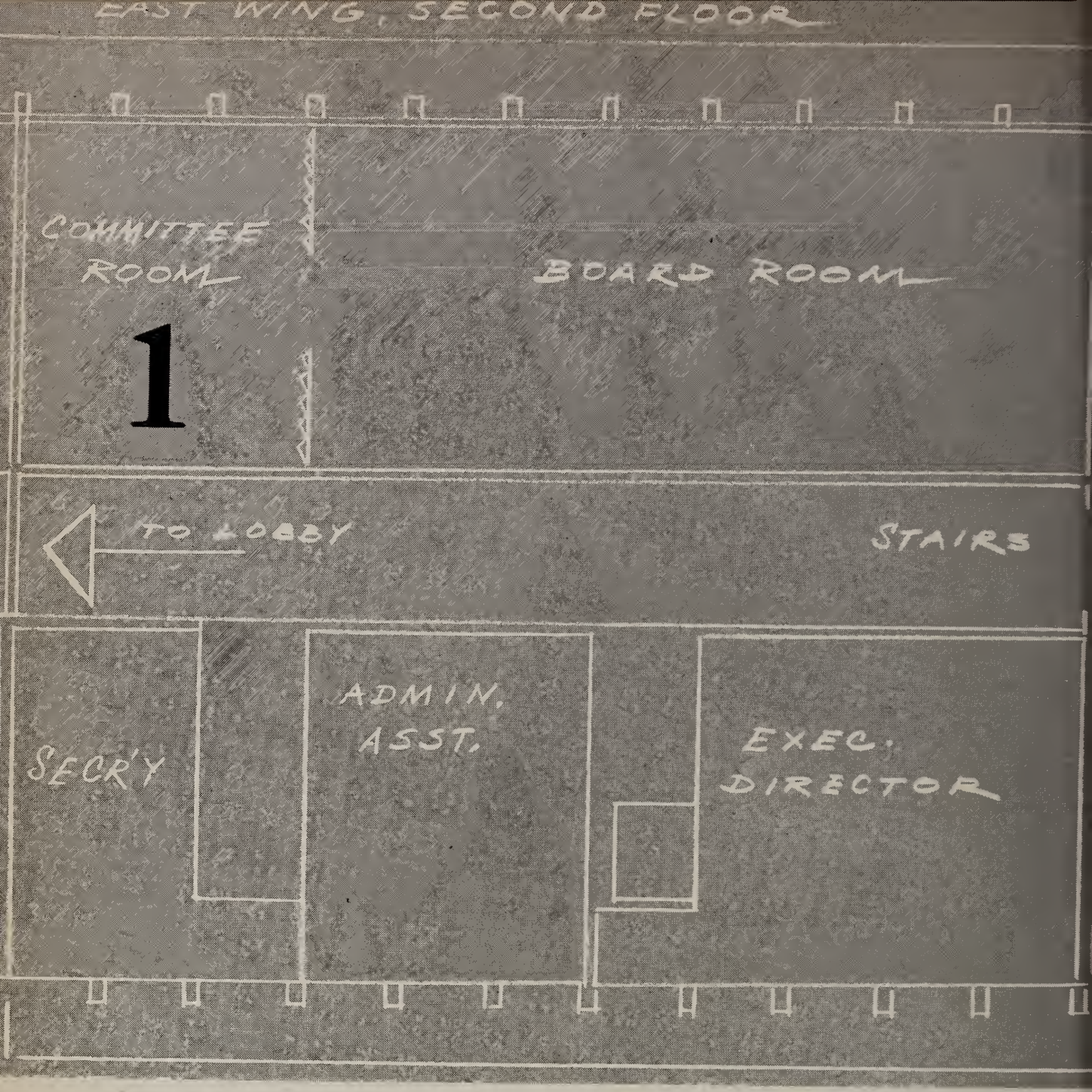
MICHIGAN'S SENIOR CONTRIBUTORY BENEFIT CERTIFICATE

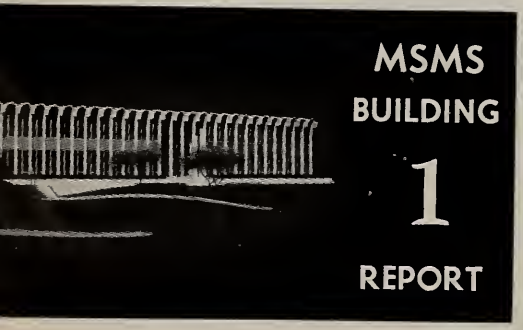
This new certificate, available individually to persons over sixty-five, was developed and tentatively approved by the Michigan Medical Service Board of Directors, by the Council of the Michigan State Medical Society, and by the Insurance Commissioner at meetings and conferences in June and July. It has now been approved completely and has some very interesting and favorably presented benefits both for the patient and for the doctor.

Following the December, 1958, resolution of the AMA with respect to the development of special reduced rate contracts for the population over age sixty-five, both the Michigan State Medical Society and the Board of Directors of Michigan Medical Service passed directive resolutions. The MCIC Committee of the Michigan State Medical Society was instructed to study and develop such a program. This program is now formalized and the new certificate known as Senior Contributory Benefit Certificate "age sixty-five and over": SCBC 68 17-74 M 75 6 has been developed and a monthly premium rate at $3.24 per individual has been established. This rate contemplates the use of the present M 75 plan "A" "Schedule of Fees." This new certificate will be announced to the public and will be on sale in September 1959. The certificate may be purchased by anyone over age sixty-five, and contains certain essential restrictions: "any surgical and medical service rendered for conditions existing on the date of membership becomes effective hereunder after six months of membership and whether or not the member was aware of it."

This is an income not certified contract which means the income is not determined at the time of enrollment but is subject to determination by the doctor and the patient at the time of service. Benefits will be full payment for persons with incomes up to $2,500 a year. Service benefit eligibility is determined on the basis of the annual income from all sources of the principal contributor to the support of the household in which the subscriber resides. Above that level it is an indemnity contract and carries the same provisions as the other new M 75 contracts, that is, deductibles for Class 2 services.

This certificate will be accompanied by a new Michigan Hospital Service certificate of thirty-day limitation and at a cost of $5.23 per month per individual, making a total of $8.47 for both certificates. All contracts of this type will be individual contracts. If both husband and wife are over sixty-five, they will both take separate contracts. The original resolution of the American Medical Association in December 1958, suggested that the doctors establish reduced payment benefits. Conferences called under direction of the AMA Council on Medical Service and other groups released information that the new Senior Citizen Certificates would represent approximately 30 per cent discount from the regular charges being made by doctors to their patients. In Michigan this projection is not true. The new Senior Contributory Benefit Certificate will pay the doctors according to the schedule being established for the M 75 contracts and based ultimately on the Michigan Relative Value Scale now in development. For all persons with incomes over $2,500, it is an indemnity policy.





Beginning with this issue the MSMS Committee on Big Look presents its first monthly Building Report.

looking AHEAD...

1

LEFT, the floor plan of the second floor, east wing, of the new MSMS Headquarters; BELOW, an artist's drawing of the Committee Room, looking towards the Board Room.



The propensity of doctors for meetings is reflected in the interior design of the new MSMS headquarters.

For the first time, meeting space has been provided in the MSMS office.

As the floor plan (facing page) indicates, two rooms are provided, one for small meetings and another for larger meetings. These may be opened into one large room for special purposes such as large meetings of The Council or its Executive Committee.

The number of decisions made by committees is awesome, but no more impressive than the list of committees itself.

To indicate the wide area of interest, here are a few MSMS Committees: Postgraduate Medical Education; Preventive Medicine; Rheumatic Fever Control; Maternal Health; Venereal Disease Control; Tuberculosis; Mental Health; Child Welfare; Iodized Salt; Geriatrics; Public Relations; Ethics; Legislative; Scientific Radio; Study of Prevention of Highway Accidents. Last year, eighty-three meetings of MSMS Committees and committees of The Council were held. This year, even more were scheduled, for an average of two meetings per week.

Each of these meetings was provided secretarial coverage by MSMS staff members. Staff people prepared the minutes for the chairman's approval. Corrected minutes were presented to The Council or its Executive Committee. The approved recommendations were carried out and finally, mimeographed copies of the minutes were distributed to members of the committee.

All in all, a lot of office routine in connection with every meeting. But, all of it important.

"Doctors expect the best available service from their State Society—and they deserve it," states Big Look Committee Chairman William S. Jones, M.D. "In its work in planning for the new MSMS headquarters, this Committee has weighed every decision in terms of ultimate service to the individual member and his county medical society."

the BEGINNING



On May 18, the Granger Construction Company unleashed work crews on the MSMS building site. Forty-one working days later, the construction had progressed ahead of schedule. The accompanying photographs were taken on July 13, 1959.







The Grand Old Men of Medicine

In Grand Rapids, on September 28, the MSMS House of Delegates will present Fifty-Year Awards to doctors of medicine who have been nominated by their respective county medical societies.

Since the Fifty-Year Award for senior doctors was inaugurated twelve years ago, 276 Michigan doctors of medicine have been so honored by their colleagues. Membership requirements are that the physician must have practiced medicine for half a century—a status far easier to honor than it is to achieve.

Following is a listing of every Fifty-Year Awardee through September, 1958, with the year of induction:

*C. D. Aaron, M.D., Detroit, 1947
*William F. Acker, M.D., Monroe, 1951
*Emil Amberg, M.D., Detroit, 1947
Bruce Anderson, M.D., Pontiac, 1950
*J. H. Andries, M.D., Detroit, 1947
*A. B. Armsbury, M.D., Marine City, 1947
*Noah E. Aronstam, M.D., Detroit, 1947
*J. A. Attridge, M.D., Port Huron, 1947
George Baert, M.D., Grand Rapids, 1947
*J. A. Baird, M.D., Flint, 1947
A. J. Baker, M.D., Grand Rapids, 1957
*W. R. Ballard, M.D., Bay City, 1947
*J. W. Barnabee, M.D., Kalamazoo, 1951
*Wm. E. Barstow, M.D., St. Louis, 1955
*C. M. Baskerville, M.D., Mt. Pleasant, 1948
*George Bates, M.D., Kingston, 1947
*Robert Beattie, M.D., Detroit, 1953
*Henri Belanger, M.D., River Rouge, 1947
E. G. Bellinger, M.D., Lansing, 1956
*Albert E. Bernstein, M.D., Detroit, 1954
*Alexander W. Blain, M.D., Detroit, 1956
Wm. E. Blodgett, M.D., Detroit, 1954
Franz L. Blumenthal, M.D., Detroit, 1953
W. P. Bope, M.D., Decatur, 1947
F. R. Boet, M.D., Grand Rapids, 1957
*A. O. Boulton, M.D., Gladwin, 1947
Phillip D. Bourland, M.D., Calumet, 1956
George H. Boyce, M.D., Iron Mountain, 1954
*C. W. Brayman, M.D., Cedar Springs, 1957
George F. Brewington, M.D., Mohawk, 1947
*H. B. Britton, M.D., Ypsilanti, 1948
Wm. H. Brock, M.D., Saginaw, 1951
*Jacob D. Brook, M.D., Grandville, 1953
*Clark D. Brooks, M.D., Detroit, 1955
*F. W. Brown, M.D., Watervliet, 1949
*D. H. Burley, M.D., Almont, 1947
*L. J. Burch, M.D., Mt. Pleasant, 1947
H. W. Cadieux, M.D., Detroit, 1947
*A. L. Callery, M.D., Port Huron, 1947
*A. M. Campbell, M.D., Grand Rapids, 1947
Duncan A. Campbell, M.D., Detroit, 1948
*W. J. Cassidy, M.D., Detroit, 1958
C. D. Chapin, M.D., Columbiaville, 1954
*W. E. Chapman, M.D., Cheboygan, 1947
*J. H. Charters, M.D., Flint, 1947
*Nancy R. Chenoweth, M.D., Escanaba, 1947
*W. R. Chittick, M.D., Spring Valley, Calif., 1947
*S. W. Church, M.D., Marshall, 1947
*G. E. Clark, M.D., Detroit, 1947
R. B. Clement, M.D., Detroit, 1957
Julius C. Clippert, M.D., Dearborn, 1951
W. A. Cochrane, M.D., Jackson, 1958
*W. E. Colbath, M.D., Adrian, 1949
F. H. Cole, M.D., Detroit, 1958
G. C. Conkle, M.D., Boyne City, 1951
*G. A. Conrad, M.D., Sault Ste. Marie, 1951
*J. E. Cooper, M.D., Battle Creek, 1952
B. R. Corbus, M.D., Grand Rapids, 1957
*W. J. Cree, M.D., Detroit, 1947
*Alexander Cruikshank, M.D., Detroit, 1947
J. E. Curlett, M.D., Roseville, 1951
M. E. Danforth, M.D., Detroit, 1952
*James D. Davis, M.D., Detroit, 1948
*T. E. DeGurse, M.D., Marine City, 1947
*William DeKleine, M.D., Lansing, 1956
*A. J. DeNike, M.D., Detroit, 1953
John C. Dodds, M.D., Detroit, 1953
*C. P. Doyle, M.D., Lansing, 1947
W. M. Drake, M.D., Breckenridge, 1952
F. J. Drolett, M.D., Lansing, 1957
*Karl Dubpernell, M.D., Detroit, 1947
*F. C. Dunn, M.D., Lansing, 1949
*S. V. Dusseau, M.D., Erie, 1947
Herman C. Emmert, M.D., Detroit, 1954
*Bert U. Estabrook, M.D., Detroit, 1953
C. J. Ettinger, M.D., Detroit, 1958
Lucius A. Farnham, M.D., Pontiac, 1956
Carl Fettig, M.D., Detroit, 1949
*Walter D. Ford, M.D., Detroit, 1949
*G. H. Frace, M.D., St. Johns, 1948
B. L. Franklin, M.D., Remus, 1952
*G. E. Frothingham, M.D., Detroit, 1947
C. B. Fulkerson, M.D., Kalamazoo, 1953
*Cyrus B. Gardner, M.D., Lansing, 1955
*H. G. Garner, M.D., Detroit, 1947
Nathaniel Gates, M.D., Detroit, 1955
J. W. Gethings, M.D., Battle Creek, 1951
*James C. Gibson, M.D., Detroit, 1947
*John R. Giffen, M.D., Bangor, 1947
Clarence Gillette, M.D., Niles, 1957
*R. W. Gillman, M.D., Detroit, 1947
Samuel Glassman, M.D., Detroit, 1958
*J. E. Gleason, M.D., Detroit, 1953
B. H. Glenn, M.D., Fowlerville, 1958
Benjamin T. Goodfellow, M.D., Flint, 1955
*C. S. Gorsline, M.D., Battle Creek, 1951
F. E. Grant, M.D., Kalmazoo, 1947
W. A. Grant, M.D., Milford, 1952
Frank A. Grawn, M.D., Ypsilanti, 1949
*Newton H. Greenman, M.D., Decatur, 1949
*W. T. S. Gregg, M.D., Calumet, 1947
*A. J. Griffith, M.D., Detroit, 1957
*Arthur Griggs, Sr., M.D., Saginaw, 1947
*J. C. Grosjean, M.D., Bay City, 1951
*B. C. Hall, M.D., Pompeii, 1947
*Joshua Hanser, M.D., Detroit, 1956
*L. J. Harris, M.D., Jackson, 1947
*Hugh Harrison, M.D., Detroit, 1947
L. L. Harrison, M.D., Niles, 1956
*Clarence L. Hathaway, M.D., Lake Orin, 1954
Wilfrid Haughey, M.D., Battle Creek, 1956
*James Henry, M.D., Grand Rapids, 1950
*H. A. Herzer, M.D., Albion, 1952
*A. B. Hewes, M.D., Adrian, 1953
L. J. Hirschman, M.D., Detroit, 1949
*Fred J. Hohn, M.D., Saginaw, 1955
*Augustus Holm, M.D., LeRoy, 1951
*W. H. Honor, M.D., Wyandotte, 1953
G. B. Hoops, M.D., Detroit, 1951
*James L. Houston, M.D., Swartz Creek, 1951
L. W. Howe, M.D., Marquette, 1958
*Edward V. Howlett, M.D., Pontiac, 1956

*Deceased

*W. F. Hoyt, M.D., Paw Paw, 1947
E. C. Hughes, M.D., Bay City, 1947
*A. Milton Humber, M.D., Detroit, 1948
*A. M. Hume, M.D., Owosso, 1947
*W. G. Hutchinson, M.D., Bloomfield Hills, 1949
W. J. Jend, M.D., Detroit, 1952
Ralph S. Jiroch, M.D., Saginaw, 1955
*J. M. Jones, M.D., Bay City, 1947
George Kamperman, M.D., Detroit, 1957
*W. E. Keane, M.D., Detroit, 1952
*J. A. Keho, M.D., Bay City, 1947
*John Kemp, M.D., Saginaw, 1947
*William Kerr, M.D., Bay City, 1947
*Wm. T. King, M.D., Ahmeek, 1951
J. R. W. Kirton, M.D., Calumet, 1948
Charles W. Knaags, M.D., Detroit, 1953
*Herbert W. Landon, M.D., Monroe, 1948
*Clarence P. Lathrop, M.D., Hastings, 1947
*W. W. Lathrop, M.D., Jackson, 1947
*H. H. Learmont, M.D., Croswell, 1950
*Abraham Leenhouts, M.D., Holland, 1948
*Simeon LeRoy, M.D., Grand Rapids, 1948
Simon Levin, M.D., Houghton, 1951
L. A. Lewis, M.D., Manistee, 1947
*David Littlejohn, M.D., Dearborn, 1947
*George W. Logan, M.D., Flushing, 1951
*Horace H. Loveland, M.D., Tecumseh, 1951
*Henry A. Luce, M.D., Detroit, 1955
Frank E. Luton, M.D., St. Johns, 1951
*Richard C. Lyle, M.D., Bridgeport, 1955
*A. E. MacGregor, M.D., Battle Creek, 1951
*Donald MacIntyre, M.D., Big Rapids, 1947
*Donald K. MacQueen, M.D., Larium, 1947
Mark Marshall, M.D., Ann Arbor, 1958
E. A. Martin, M.D., Detroit, 1957
*E. A. Martindale, M.D., Hillsdale, 1949
*Reuben Maurits, M.D., Grand Rapids, 1947
*J. C. Maxwell, M.D., Paw Paw, 1947
D. J. McColl, M.D., Port Huron, 1947
Allan McDonald, M.D., Detroit, 1953
J. E. McIntyre, M.D., Lansing, 1958
O. W. McKenna, M.D., Flint, 1947
Harriet E. McLane, M.D., Detroit, 1958
*W. E. McNamara, M.D., Lansing, 1953
*Donald H. McRae, M.D., Detroit, 1955
*Richard E. Mercer, M.D., Detroit, 1948
*C. M. Mercer, M.D., Battle Creek, 1957
*H. G. Merz, M.D., Lapeer, 1947
Henry Meyer, M.D., Saginaw, 1947
A. H. Miller, M.D., Gladstone, 1955
*G. W. Moll, M.D., Escanaba, 1947
*Willard Monfort, M.D., Highland Park, 1949
*G. W. Moore, M.D., Bay City, 1951
*Esli T. Morden, M.D., Adrian, 1951
E. T. Morris, M.D., Nashville, 1952
John B. Morton, M.D., Detroit, 1948
*L. P. Munger, M.D., Hart, 1947
C. D. Munro, M.D., Jackson, 1947
J. E. Munro, M.D., Jackson, 1953
*Dean W. Myers, M.D., Ann Arbor, 1949
*J. H. Nicholson, M.D., Hart, 1947
*Albert Noordewier, M.D., Grand Rapids, 1951
*A. K. Northrop, M.D., Detroit, 1947
Charles S. Norton, M.D., Detroit, 1954
*Charles Norton, M.D., Detroit, 1950
D. J. O'Brien, M.D., Lapeer, 1958
*David H. O'Donnell, M.D., Detroit, 1947
L. W. Oliphant, M.D., Ann Arbor, 1949
*W. R. Olmsted, M.D., Detroit, 1953
John W. Orr, M.D., Fenton, 1956
F. W. Ostrander, M.D., Freeland, 1951
*Gertrude O'Sullivan, M.D., Mason, 1947
*Robert J. Palmer, M.D., Detroit, 1949
*E. J. Panzer, M.D., Detroit, 1947
*B. Morgan Parker, M.D., Utica, 1951
*W. R. Parker, M.D., Detroit, 1947
*W. T. Parker, M.D., Owosso, 1951
*Marion F. Parrish, M.D., Sturgis, 1947
Christopher G. Parnall, M.D., Ann Arbor, 1955
*Louis K. Peck, M.D., Lake City, 1947
R. L. Pfeiffer, M.D., Detroit, 1953
*Frank Poole, M.D., Saginaw, 1947
*Lunette I. Powers, M.D., Muskegon, 1947
George R. Pray, M.D., Jackson, 1950
*Edward B. Ramsey, M.D., Detroit, 1950
*H. E. Randall, M.D., Flint, 1947
G. P. Raynale, M.D., Birmingham, 1952
F. L. Rector, M.D., Portland, Oregon, 1957
*G. L. Renaud, M.D., Detroit, 1947
*R. Milton Richards, M.D., Detroit, 1948
J. W. Rigterink, M.D., Grand Rapids, 1951
J. M. Robb, M.D., Detroit, 1958
*Arthur J. Roberts, M.D., Jackson, 1947
*F. A. Roberts, M.D., Flint, 1957
*Melvin D. Roberts, M.D., Hancock, 1956
*Mortimer Roberts, M.D., Grand Rapids, 1947
*A. L. Robinson, M.D., Burr Oak, 1952
*Michael Ryan, M.D., Saginaw, 1947
E. D. Sage, M.D., Kalamazoo, 1951
Edward O. Sage, M.D., Detroit, 1950
Susanne M. Sanderson, M.D., Detroit, 1958
*Thomas M. Sanford, M.D., Lansing, 1947
*Edward Sawbridge, M.D., Stephenson, 1947
*R. L. Schorr, M.D., Detroit, 1947
Alvin H. Seibert, M.D., Grosse Pointe Park, 1955
*H. T. Sethney, M.D., Menominee, 1955
*DeWitt L. Sherwood, M.D., Detroit, 1954
*B. R. Shurly, M.D., Detroit, 1947
*C. E. Simpson, M.D., Detroit, 1953
Frank J. Sladen, M.D., Detroit, 1956
L. K. Slote, M.D., St. Joseph, 1958
Claude A. Smith, M.D., Dearborn, 1956
*W. J. Smith, M.D., Cadillac, 1955
*Jeanne C. Solis, M.D., Ann Arbor, 1947
*I. L. Spalding, M.D., Hudson, 1949
Wm. J. Stapleton, Jr., Detroit, 1950
Clarence T. Starker, M.D., Pontiac, 1956
Thomas C. Starrs, M.D., Detroit, 1956
Lewis L. Stewart, M.D., Jackson, 1950
G. J. Stuart, M.D., Grand Rapids, 1957
A. L. Swinton, M.D., Marquette, 1958
S. W. Thieme, M.D., Ravenna, 1957
E. L. Thirlby, M.D., Traverse City, 1953
*J. O. Thomas, M.D., North Branch, 1947
*A. B. Thompson, Sr., M.D., Grand Rapids, 1947
*H. E. Thompson, M.D., Detroit, 1957
*Alexander Thomson, M.D., Detroit, 1947
*Otto Toepel, M.D., Detroit, 1947
*M. I. Uloth, M.D., Ortonville, 1952
H. L. Ulbrich, M.D., Grosse Pointe Woods, 1958
*L. N. Upjohn, M.D., Kalamazoo, 1951
C. A. Van Dusen, M.D., Blissfield, 1957
Paul Van Riper, M.D., Champion, 1958
*Thomas Van Urk, M.D., Kalamazoo, 1948
John Ver Meulen, M.D., Grand Rapids, 1957
*J. E. G. Waddington, M.D., Detroit, 1947
*E. C. Warren, M.D., Bay City, 1947
A. V. Wenger, M.D., Grand Rapids, 1957
*J. A. Wessinger, M.D., Ann Arbor, 1947
*J. B. Whinery, M.D., Grand Rapids, 1947
*W. G. Wight, M.D., Yale, 1947
E. P. Wilbur, M.D., Kalamazoo, 1947
U. J. Wile, M.D., Ann Arbor, 1957
*Herbert H. Wiley, M.D., Algonac, 1951
*Clayton Willison, M.D., Sault Ste. Marie, 1947
Leslie L. Willoughby, M.D., Flint, 1955
*H. R. Wilson, M.D., Saginaw, 1951
*W. J. Wilson, Sr., M.D., Detroit, 1947
W. H. Winchester, M.D., Flint, 1951
G. E. Winter, M.D., Jackson, 1947
Robert A. C. Wollenberg, M.D., Detroit, 1955
W. J. Wright, M.D., Ypsilanti, 1949
A. S. Youngs, M.D., Kalamazoo, 1947
Aloysius J. Zaremba, M.D., Bay City, 1955

*Deceased.





JAMES KOLKOWSKI AND ORCHESTRA — With one of the most capable bands in Michigan, Mr. Kolkowski has played for years at conventions and shows.

PRYDE AND DAY—*(left)* This talented couple offers unusual routines and comedy capers, featuring juggling, unicycle riding and acrobatics.

You Are Invited

MSMS ANNUAL SESSION

State Society Night

Pantlind Hotel, Grand Rapids, October 1

Your Lady Is Invited



TERSHAY—*(above)* Known also as "That Pocket-Pilfering Turkish Delight," Tershay triumphs in trickery.

JACK MARSHALL—*(right)* A favorite emcee at Desert Inn, Las Vegas, Mr. Marshall not only gets laughs with his timing and delivery of gags, but also with his "educated trombone."



MSMS Annual Session

Meetings of Special Societies

CLINICAL SOCIETY, MICHIGAN DIABETES ASSOCIATION, INC.

Pantlind Hotel, Grand Rapids
Friday, October 2, 1959

Afternoon Session

Presiding—RALPH L. FITTS, M.D.

P.M.

2:00 "Early Diagnosis of Diabetes"—STEFAN S. FAJANS, M.D., Associate Professor of Internal Medicine, University of Michigan, Ann Arbor.

2:20 "Eye Complications of Diabetes"—JOHN B. BRYAN, M.D., Associate Physician, Henry Ford Hospital, Detroit.

2:40 "Neurological Complications of Diabetes"—JOHN STERLING MEYERS, M.D., Professor and Chairman Department of Neurology, Wayne State University, College of Medicine, Detroit.

Intermission

3:10 "Planning the Diabetic Diet"
"Prescription"—KEATS L. VINING, JR., M.D., Attending Physician, Blodgett Hospital, Grand Rapids.

3:20 "Calculating the Diet"—MARY M. HARRINGTON, M.A., Director of Dietetics, Harper Hospital, Detroit.

3:40 "Practical Use of Hypoglycemic Agents"—FRANK S. PERKIN, M.D., President, Michigan Diabetes Association, Clinical Associate Professor of Medicine, Wayne State University; Physician Harper Hospital, Detroit.

4:00 PANEL: "Problems in the Practical Management of Diabetes"
Moderator—L. F. SEGAR, M.D., Clinical Associated Professor of Medicine, Wayne State University; Physician Harper Hospital, Detroit.
WILLIAM L. LOWRIE, M.D., Physician in charge, Division of Department of Metabolic Diseases, Henry Ford Hospital, Detroit.
GEORGE C. THOSTESON, M.D., Assistant Clinical Professor, Wayne State University; Physician, Harper Hospital, Detroit.
STEFAN S. FAJANS, M.D., Associate Professor of Internal Medicine, University of Michigan, Ann Arbor.
FRANKLIN W. BASKE, M.D., Consultant in Metabolism—Hurley Hospital, McLaren Hospital, St. Joseph Hospital, Flint.

6:30 Cocktails

7:00 Dinner

Evening Session

FRANK S. PERKIN, M.D., President, Michigan Diabetes Association, Inc.
"What the Physician Can Expect in the Future for the Treatment of Diabetes"
WILLIAM R. KIRTLEY, M.D., Lilly Research Laboratories, Indianapolis, Indiana.

All physicians interested in Diabetes and Metabolic problems are cordially invited to attend both the afternoon and dinner meetings. Membership in the Michigan Diabetes Association, Inc., is not necessary.

Tickets for the dinner meeting may be purchased at the afternoon meeting of the Michigan Diabetes Association, Inc., on October 2, 1959.

MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Tenth Annual Convention
Manger-Rowe Hotel, Grand Rapids
September 30, October 1, 1959

Program

Tuesday, September 29, 1959

P.M.

7:00 Hospitality Room—Welcoming Committee—Mezzanine
Hostess: Kent County Medical Assistants Society

Wednesday, September 30, 1959

A.M.

9:00 Registration—Mezzanine
Chairman: MRS. FLORENCE GRIFFIN

10:00 "Welcome"—MISS DONNA HISLOP, President MSMAS—English Room
Business Meeting—Sargent at Arms—CECIL RUTAN, HELEN LAITY
Movies for non-members—DR. KEMME, Zeeland "Trip around the world" assisted by Joyce Blauwkamp

P.M.

12:30 Luncheon—Louis XV Room
Hostess: MRS. MARIE NIELSON
Speaker: WILLIAM CREASON, D.D.S., Mayor of Grand Haven
"Professional people in local government"

2:00 JOHN PEDDEN, M.D.—"Hypnosis and the Medical Assistant"—English Room
Question and answer period.

3:00 Movie—"Origin of Penicillin"—Parke Davis—English Room

4:00 View Exhibits at Civic Auditorium

6:30 Social Hour—Courtesy of Medical-Dental Bureau—Mezzanine and English Room
Hostesses: MISS DONNA HISLOP, MISS CATHY LAPRES, MRS. VIVIAN BRANYAN, MRS. MARION HORNING
Hawaiian Holiday—Phil Osterhouse dancers to teach you how to do the Hula.

7:30 Banquet—Hostess: MRS. VIVIAN BRANYAN—Louis XV Room
Music by Hawaiian School of Music
Master of Ceremonies: ROBERT J. SAMP, M.D., Assistant Professor Tumor Clinic University of Wisconsin—"The Facts of Life for a Medical Assistant."

Thursday, October 1, 1959

A.M.

9:00 Registration—Mezzanine

10:00 E. H. JOHNSON, M.D.—Radiologist—"Effect of Ionizing Radiation—Physical and Mental Aspects"—English Room

11:00 RALPH M. SHEEHAN—Director of Civil Defense for the State of Michigan—"Civil Defense is Government"—English Room

P.M.

12:30 President's Luncheon—Louis XV Room
Honoring all ten-year MSMAS members and Presidents of each component society.
Hostess: MRS. MARION HORNING
Installation of officers: MRS. LORINE LUPLOW
Skit—"You, the Medical Assistant"—Kalamazoo Medical Assistant Society—HELEN LAITY, narrator.

4:00 View Exhibits at Civic Auditorium

Annual Reports

ANNUAL REPORT OF THE COUNCIL

1958-59

The Council held three sessions totalling six days, and the Executive Committee of The Council convened eight times (prior to September 27, 1959, the date of the 1959 Annual Session). All matters studied (over 1,000 items), and recommendations made by The Council's forty-three committees as well as by the Society's twenty-one committees. and all business of the Society were referred to The Council or its Executive Committee for consideration and action.

Membership

Membership as of June 30, and as of December 31, from 1935 to 1959 is indicated in the following chart:

	1935	1945	1955	1957	1958	1959
June 30	3,410	4,425	5,503	6,104	6,175	6,461
December 31	3,543	4,686	6,109	6,504	6,638	

The 1959 figures include 5,605 Active Members, 320 Life Members, 96 Retired Members, 438 Associate and Military Members, and 2 Non-Resident Members.

The Scientific Side

The scientific achievements of the Michigan State Medical Society are its greatest service to the public and its most valuable benefit to its members. Briefly, they can be measured in five major activities:

(a) The superb program of the MSMS Annual Session which in September, 1958 was held in Detroit and attracted a registration of 4,103. The new format (Tuesday noon through Friday), earned the approval of our members.

(b) The Michigan Clinical Institute, our spring refresher course, gained greater acclaim through a stellar program last March. Attendance reached 2,988. Especially productive in good public relations was the public color television program sponsored through the cooperation of Smith, Kline & French Laboratories of Philadelphia.

(c) The extra-mural postgraduate programs sponsored by MSMS, the University of Michigan Medical School, and Wayne State University College of Medicine still maintain their high scientific standing. The creditable percentage of attendance is the best indication of the profession's approval.

(d) The Journal of the Michigan State Medical Society holds its position as a leader in the state journal field. Constant improvement is the order of the publication, month after month. Our membership has reason to be proud of its outstanding scientific house organ.

(e) Local scientific programs. The repeated congratulations of MSMS go to the county medical societies of Michigan that, in addition to their regular meetings, hold special clinic days featuring outstanding speakers who bring to their members the latest information in medical advancement.

The most rewarding and satisfying activity of MSMS and its 55 components is the effective advancement of the science of medicine in Michigan.

Finance

The first item of new business on the monthly agenda of The Council or its Executive Committee is "Study of Monthly Financial Report." Therefore, every thirty days, the Society's financial picture is reviewed and governing policies established. In addition, the Finance Committee meets periodically to study and to advise The Council on particular fiscal matters. The Auditor's report for 1958 plus the budgets of the Society for 1959 were published in JMSMS, March Number beginning Page 436. Members are invited to acquaint themselves with the financial status of their State Medical Society and to offer suggestions; these always are appreciated.

As of June 30, 1959, 5,605 members paid Society dues amounting to $150,963.75. This was on the basis of $27.00 per member allocated to the General Fund as established by The Council in January 1959 and includes some payments by new members for portions of the year. Also, $8,386.88 accrued to the Public Education Reserve account, $51,844.53 accrued to the Public Education account, $25,160.62 accrued to the Public Service account, and $34,956.48 accrued to the Professional Relations account for current activities as directed by The Council in January 1959. The sum of $55,923.66 was set aside in a New Headquarters Fund. A brief financial résumé of each of the MSMS activities as of June 30, 1959 is presented in the accompanying table.

ACCOUNT	On Hand 12/1/58	Income to 7/1/59	Expenses to 7/1/59	Balance on Hand 7/1/59
General Fund	$175,021.34	$158,830.13	$103,487.76	$230,363.71
Annual Session	—o—	31,430.00	5,365.96	26,064.04
Michigan Clinical Institute	—o—	13,585.00	15,675.69	2,090.69 cr.
The Journal	—o—	91,915.46	75,148.52	16,766.94
Public Education	17,677.72	51,844.53	32,518.72	37,003.53
Public Service	5,409.09 cr.	25,160.62	16,159.46	3,592.07
Professional Relations	2,463.45 cr.	34,956.48	26,969.03	5,524.00
Public Education Reserve	91,165.25	8,386.88	—o—	99,552.13
Rheumatic Fever Control	1,879.18	4,950.00	3,384.85	3,444.33
Surplus from Dues	53,614.34	—o—	—o—	53,614.34
Building Fund	22,195.41	—o—	2,320.33	19,875.08
MSMS Headquarters Fund	85,373.04	55,923.66	33,534.69	107,762.01
TOTALS	$439,053.74	$476,982.76	$314,565.01	$601,471.49

The AMA dues collected by county medical societies, forwarded to MSMS, then mailed to the American Medical Association during the seven months to June 30, 1959, totalled $137,937.50. The very high percentage of AMA dues being paid by MSMS members (98.4 per cent) is most commendatory. A résumé of the financial condition of the Michigan State Medical Society as of August 31, 1959 will be presented to the House of Delegates at its opening session of September 27, as a part of The Council's Supplemental Report.

Thus far in 1959, $60,000.00 of the funds of the Michigan State Medical Society have been invested in short-term securities. These funds are invested during the early part of the year when income resulting from dues payments is high to earn interest for the commercial account. These securities mature later in the year when income is low and expenses continue at the regular rate. The funds from any maturing securities which are not immediately required will be reinvested upon the advice of the Finance Committee. Interest Income from securi-

ties held by the Michigan State Medical Society has accrued during the first seven months of 1959 in the amount of $4,475.31.

The Journal

The JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY was established in October 1902 by the Secretary, Andrew P. Biddle, M.D., under direction of The Council and its Publication Committee. Medical journalism was a new adventure. The Michigan State Medical Society had published annually, a book "The Transactions" containing the papers read at the Annual Session. A tremendous change in medical organization was being accomplished. Doctors were interested in new things, they were not satisfied with the scant material and postgraduate work available to them. The reorganized Society established a monthly medical Journal to present to its members the papers read at the annual meetings plus other items and news available. The real object in establishing THE JOURNAL was to carry to the members of the State Society each month, a token of togetherness, education, organization, ethics, and any other projects of the Society.

Andrew Biddle fundamentally was a medical educator, completely engrossed with the State Medical Society and its future greatness. He built a good Journal. During the 57 years which have followed, it has not missed a single issue and the September 1959 Number is number 684. As the Society grew and new policies were developed, THE JOURNAL expressed them editorially, with news items and special articles. It has attempted to keep the membership posted on its accomplishments and the new political and economic aspects in relation to the practice of medicine and to the activity of the members. Many of the worthwhile accomplishments of the medical profession of which Michigan is well proud were presented in THE JOURNAL in reports of the House of Delegates, of The Council, of committees, and by independent workers. THE JOURNAL has always been ready and anxious to carry to the membership these reports, functions and accomplishments.

For the past two or three decades, the medical profession has been fighting for principles and against controls. Nationally it opposed legislation which tended toward government medicine. About sixteen or seventeen years ago the Michigan Society determined to be "for" something. The editorial pages have followed that trend, taking a socio-economic form instead of being purely scientific. At that time THE JOURNAL began assigning special issues to particular functions of the Society; a committee, a field of medicine, or some integral part of the Society. It memorialized the two medical schools, scientific advancements. It assigned certain numbers to county medical societies to use in presenting their historical and scientific accomplishments. This policy has grown until for the last several years, every single number of THE JOURNAL has been assigned to some particular topic or function. The December numbers have been assigned to the Michigan Clinical Institute since that was inaugurated; July has been assigned to the Annual Session to present programs, committee reports and various materials necessary for the session. June has been devoted to Michigan Medical Service. Michigan is unique in that Michigan Medical Service is an integral part of the State Medical Society, members of its House of Delegates being the corporate body of Blue Shield and electing the Board of Directors.

During the current year THE JOURNAL has continued special activities and special covers. The January number appeared in two sections: one devoted to Heart as it has been for many years; the other section contained the proceedings, minutes and reports of the House of Delegates at the 93rd Annual Session, September 26-30, 1958. In February, it was "The Doctor as a Citizen." The March issue was devoted to Washtenaw County Medical Society, and the cover featured "6,400 hospital beds" in that county. The April number was again Cancer with a slogan "Every physical examination—a detection procedure." The May issue was the Beaumont Number and a four-color reproduction of Dean Cornwell's painting, "Beaumont and St. Martin" graced the cover. June again featured Michigan Medical Service emphasizing the slogan "Toward a Common Goal."

The July number contained the Annual Session program with the cover illustrating the new MSMS headquarters building now being built. Pediatrics and Child Welfare articles filled the August number, sponsored by the MSMS Child Welfare Committee. September is the Geriatrics number, with current information on this important subject contributed by the MSMS Geriatrics Committee.

With the many intricate problems facing the medical profession, THE JOURNAL has necessarily increased in size. For several years, the Directory has been published as a section to one issue of THE JOURNAL—usually September, and it has almost always delayed that issue from two to three weeks. It has now been determined and arranged that this Directory Number be published as a special number which can be mailed separately.

The minutes and reports of the Annual Session held in September has grown to such an extent that the January number of THE JOURNAL would be over 200 pages, too many for one binding. The Council has authorized that this material also be published as a special issue. In October, it is planned to publish another special issue which will list all the officers, committees, county society officers, Council, Board of Directors of Michigan Medical Service, Board of Directors of Michigan Foundation for Medical and Health Education, and the Beaumont Foundation. Other state groups, such as the Health Department and Crippled Children Commission, could be included, making this volume a very valuable reference item. This will amount to three extra issues.

The editorial pages have carried reports of the trends which are manifest in Washington, Michigan and elsewhere. The editorials largely have been of a socio-economic nature; an attempt has been made to present the policy and program of the Society as it has been established by the House of Delegates and elaborated by The Council.

The Editor is happy to report that he has found the executive officers always willing, kind and helpful. He especially wishes to express his appreciation of the close association of L. Fernald Foster, M.D., during his editorial tenure. During this same period, Dr. Foster was one of the administrative officers of the State Medical Journal Advertising Bureau. Our contacts could not have been closer or more genuinely friendly and helpful. We also wish to thank the Publication Committee, and its chairman, Bradley M. Harris, M.D., and the Assistant Editor, Louis J. Bailey, M.D., for valued suggestions.

Organization

1. *L. Fernald Foster, M.D.*—The Michigan State Medical Society lost its chief organizational genius in the passing of Dr. Foster on May 27, 1959, after many months' illness. Words to describe this great loss remain inadequate; however, The Council's Resolution to Dr. Foster's memory attempts to express our feelings for a great personality who for twenty-three years breathed vital life into his greatest enthusiasm, the Michigan State Medical Society:

RESOLUTION IN MEMORY OF
L. FERNALD FOSTER, M.D.

WHEREAS, at best our personal knowledge is meager and our memories short, and

WHEREAS, we have had with us a man of great depth of character, high scientific attainment, and blessed with broad administrative abilities, and

WHEREAS, his accomplishments have not always carried his name for he was always one to forsake personal credit in favor of project success, and

WHEREAS, to attempt to list herein his contributions to the organization and advancement of his chosen profession would be endangered by our inability to surely complete such a task, and

WHEREAS, for his twenty-three years as Secretary of the Michigan State Medical Society, for serving as its President, and as the President of Michigan Medical Service he deserves rewards far in excess of any he received while on this earth or any that we can now offer; therefore, be it

RESOLVED: That we, severally and as a body, do hereby make permanent record of our admiration and respect for L. Fernald Foster, M.D.; that we note with sorrow his untimely passing; and that we do recognize with thanks to his memory and his family the unparalleled contribution he made to the medical profession over the quarter-century that he served as an officer and leader of his beloved Michigan State Medical Society, and be it further

RESOLVED: That a copy of this resolution be prepared in appropriate form, made a part of the minutes of this meeting, and forwarded to the many members of Doctor Foster's family.

2. Besides the 93rd MSMS Annual Session held in Detroit last September and the Michigan Clinical Institute held in Detroit last March (both previously reported), the State Society's annual County Secretaries-Public Relations Seminar, held in Detroit on January 31-February 1, 1959, proved again to be an important means of disseminating valuable information on socio-economic matters to the elected leaders of county societies.

3. The executive secretaries of eight component societies met with the MSMS staff in Detroit on February 2, 1959, to discuss matters of organizational import on both the state and county level. This annual gathering is important and should be continued.

4. Another valuable conference for a special group, the residents-interns-senior medical students of the State, was held in Detroit on March 12, 1959. In addition, the State Society continues to follow the instructions of the House of Delegates by inviting twelve students from Michigan's two medical schools to attend the MSMS House of Delegates Sessions. as well as encouraging attendance at their own Student AMA convention which in 1959 was held in Chicago.

5. The Testimonial Luncheon of March 12 was held in Detroit to recognize national medical leaders from Michigan who have performed outstanding service to their profession, including: J. Edward Berk, M.D., Detroit, President of American Gastroscopic Society; C. Leslie Mitchell, M.D., Detroit, President of American Orthopedic Association; Herman K. B. Pinkus, M.D., Monroe, President of the Society for Investigative Dermatology; John W. Rebuck, M.D., Detroit, President of the International Reticulo-Endothelial Society; Lawrence Reynolds, M.D., Detroit, President of American College of Radiology; W. H. Steffensen, M.D., Grand Rapids, President of the American Society of Plastic and Reconstructive Surgery; John M. Wellman, M.D., Lansing, President of Frederick A. Coller Surgical Society, and Fred J. Drolett, M.D., Lansing, Michigan's Foremost Family Physician for 1958.

6. On the national scale our AMA Delegates continue to be recognized as progressive leaders in formulation of medical policy. High thanks are due these men, our important representatives to the AMA House of Delegates.

During 1959, MSMS gained another—its seventh—delegate to the AMA.

7. The IBM history questionnaires were distributed during the past year and it is gratifying to report that some 3,067 biographies have been returned to us by members as of July 1, 1959. Again, the cooperation of all members in executing these IBM history questionnaires is earnestly invited.

8. Larger space in the David Whitney House, Detroit, for MSMS activities was necessarily acquired during the past year, thanks to the fine cooperation of the Wayne County Medical Society's House Committee.

9. D. Bruce Wiley, M.D., Utica, was elected Secretary to serve the unexpired term of the late Doctor Foster; A. E. Schiller, M.D., Detroit, was chosen Chairman of The Council for the unexpired term of the Chairman.

10. The fifty-five component societies, which encompass all eighty-three counties of the State, conducted vital programs of inservice education and provided leadership for necessary community programs during the past year. Your State Society continues to be a source of assistance to its components, for information in obtaining speakers, and rendering advice in scientific, and socio-economic matters, and in solving administrative and ethical problems.

Organization, in MSMS and among its components, improves with the years.

Contacts with Governmental and Voluntary Agencies

An important and increasingly large activity of the Michigan State Medical Society continues to be contacts with both governmental and voluntary agencies.

Governmental Agencies

1. Veterans' Administration Hometown Medical Care Program. This salutary program, instituted originally to care for veterans in their home communities, has been the subject of much consideration on the part of The Council and by a special Ad Hoc Committee appointed to help negotiate the contract revision. For all practical purposes, it appears that the Veterans' Administration wishes to restrict the functions of the fiscal (intermediary) agent, Michigan Medical Service, to a point where all MMS will do is to issue checks to the doctors! VA wishes to "buy" from the Michigan State Medical Society: (a) a fee schedule; (b) an advisory committee; (c) professional relations help; (d) MMS to issue checks after Veterans' Administration tells it what M.D.'s to pay and how much, with all reports to go to Veterans' Administration. The Ad Hoc Committee was given little opportunity to make progress in efforts to provide services of doctors on a basis more like the program of earlier years, so it would appear that no advantage will accrue from MSMS rubber stamping VA decrees. The Council has accepted the modified Veterans' Administration proposal for the year 1959-60 with serious misgivings and the statement "unless the program for care of veterans is much improved for next year, that MSMS seriously consider discontinuing its participation."

The members of the Ad Hoc Committee and Mr. L. Gordon Goodrich of Michigan Medical Service are to be commended for their valiant attempts at saving this disintegrating program.

2. Fortunately, your State Society had beneficial contacts during the past year with other governmental agencies, including: (a) Federal Government officials charged with administration of the "Medicare" program; (b) The office of the Governor of Michigan; (c) The Michigan Legislature and its bureaus and committees; (d) Michigan Department of Health with Commissioner A. E. Heustis, M.D., present at almost all sessions of The Council and its Executive Committee; (e) The University of Michigan Medical School; (f) Wayne State University College of Medicine; (g) Michigan Crippled Children Commission; (h) Michigan Department of Public Instruction and its Office of Vocational

Rehabilitation; (i) Michigan Mental Health Department; (j) Michigan Department of Social Welfare; (k) Michigan State University; (l) Michigan State Board of Registration in Medicine; (m) The White House Conference on Children and Youth; and (n) the White House Conference on Aging.

Non-governmental Agencies

1. Mutual beneficial contacts continue to be maintained with the Michigan Heart Association, Michigan Hospital Association, Michigan State Dental Association, Michigan State Nurses Association, Michigan Hospital Service, Michigan Medical Service, Blue Shield Medical Care Plans, and Michigan Branch of Health Insurance Council (through the newly appointed MSMS Liaison Committee headed by Past President G. W. Slagle, M.D., of Battle Creek).

Blue Shield lost a capable administrator during the past year through the departure of J. C. Ketchum, its Executive Vice President, who accepted a major position in Chicago after seventeen years of untiring effort in behalf of the medical profession of Michigan.

2. The American Medical Association was a constant source of help to your State Society during the past year, and merits maximum interest and tangible assistance of every member of the Michigan State Medical Society. The AMA is *YOU* on the national level.

Committees

A total of sixty-six meetings of Committees of MSMS and of The Council were held during the past year (up to September 1, 1959). All members of the State Society are benefited by the studies and actions of these progressive groups. The members of our committees deserve unqualified praise for their unheralded contribution to Michigan Medicine and to the members of MSMS. The Society is as progressive and serviceable as is its Committees! A system of awards for recognition of outstanding contribution of individuals to committee work has been developed and will go into effect this year.

Again, to save the time of the House of Delegates' Reference Committees, the Annual Reports of Committees of The Council are being integrated into this Annual Report of The Council.

I. *Committees on Uniform Fee Schedule for Governmental Agencies.*—The Uniform Fee Schedule for Governmental Welfare Agencies was revised in 1959 and reprinted in July, after clearance through the House of Delegates' Permanent Advisory Committee on Fees. The thanks of the Society are merited by three Committees (Relative Value Study Committee, L. R. Leader, M.D., Detroit, Chairman; Medical Care Insurance Committee, M. L. Lichter, M.D., Detroit, Chairman; and, Permanent Advisory Committee on Fees, G. C. Penberthy, M.D., Detroit, Chairman) which worked months on this time-consuming, important task.

II. *Liaison Committee with Michigan Veterans Organizations.*—No problem requiring Committee action was entertained during the past year. At the request of the Service Officer of a Veterans' Organization your Chairman began preliminary investigation of the activities of a group of non-physician technicians in the rating of hearing defects of veterans.

III. *Special Committee on VA Hometown Medical Care Program.*—There is recurrent intent by the Veterans' Administrator to abolish the use of intermediary in the operation of this excellent program. The use of intermediary has been endorsed by the AMA Committee on Federal Medical Services. At the present time only 9 states utilize this procedure for providing medical care for the service-connected veteran by the physician of his own choice in his own community. The renegotiation of the current contract was assigned to another group by the MSMS Executive Committee.

IV. *Planning Committee of Joint Conference on Staphylococcus Infection.*—There is nothing further to report on the Planning Committee of Joint Conference on Staphylococcus Infection. This was discussed in full at a meeting of the Permanent Conference Committee and it now seems to be a rather dead issue, inasmuch as all hospitals have been fully alerted and cognizant of the danger. Practically all hospitals have instituted the isolation of all such contaminated cases.

V. *Medical Procurement Advisory Committee.*—This Committee held no meetings during the past year, since no problems arose which called for a meeting and no references were made by officers or committees of the Society which required consideration.

VI. *Committee to Study Utilization of Vacant TB Facilities for Chronic Diseases.*—Meetings of this Special Committee were held on May 14, 1958 and again on November 12, 1958 with the following recommendations made:

1. That the State and County Sanatoria systems be continued separately.
2. That no sanatorium be abandoned entirely to another use.
3. That Legislation be supported to permit the same utilization of surplus tuberculosis beds as was indicated for County Sanatoria by action of the 1957 Legislature.
4. That the Legislature be requested to appropriate funds for the establishment of a security facility.
5. That a permanent Advisory Committee to the State Health Commissioner be established to be composed of representatives of all interested groups, including MSMS, such continuing Committee to advise the Health Commissioner on problems of Tuberculosis Control.

VII. *Committee on "Big Look."*—The Big Look Committee met on two occasions, on January 29 and on April 1, 1959 and considered the following matters:

1. New MSMS Headquarters Building in East Lansing: Plans as submitted by Architect M. Yamasaki and Associates were given detailed study by the Committee. The Architect advised that bids on the project were sent on March 23 to eight contractors in architectural trades, seven in mechanical trades, and five in electrical trades. Utility bids were requested from contractors after the April 6 vote in the Township when its annexation to East Lansing was acted on favorably.

The Committee respectfully recommended to The Council that it use for the construction of the building the cash on hand in the building fund (approximately $85,000), plus money from reserves equivalent to the value of the present building at 606 Tonwsend, and such other monies as are available, and that the remainder of the needed money be borrowed from a bank as required.

The Committee recommended that the most efficient and effective type of telephone equipment—console or otherwise—be obtained from the Michigan Bell Telephone Company.

The Committee felt that the Architect should develop specifications for interior design and submit bids to the suppliers, thus acting as agent for MSMS in handling details of furnishing the building. It was reported that the Board of the Woman's Auxiliary had acted favorably on furnishing the All Purpose Room and the proposal will be presented to the Woman's Auxiliary Convention in September, 1959, for final approval; likewise the Past Presidents have before them the project to furnish the Presidents' Room which matter will be finalized at the Past Presidents' Committee meeting in September at Grand Rapids.

Hazard insurance on the building during construction was recommended to The Council, which recommendation was approved.

K. H. Johnson, M.D., Lansing, was appointed local (Lansing) contact with the Architect and with the realtor listing the present MSMS property in Lansing.

2. The Committee recommended that the Ground Breaking Ceremonies be held at the site on April 1,

1959, which was done. It also suggested to The Council that the cornerstone laying be arranged tentatively for Sunday, September 27 so that Delegates, Councilors, and all other members of the Society might attend this ceremony on their way to the 1959 MSMS Annual Session in Grand Rapids; in like manner, the dedication was recommended tentatively for Sunday, September 25, 1960, so that Delegates and members again may attend same on their way to Detroit for the 1960 MSMS Annual Session.

3. Re. 606 Townsend: The Committee recommended that The Council set a sales price on the old MSMS Headquarters Building in Lansing and select a realtor to sell the building to be vacated about July 1, 1960. It also requested a rezoning of the 606 Townsend, Lansing, property from "D" Apartment District Classifications to "D-1" Professional Office Classification, to widen the number of prospective buyers.

VIII. *MSMS Representatives: Liaison Committee to Michigan Society of Neurology and Psychiatry and Michigan Psychological Society.*—The Committee did not hold any meetings during the past year. However, Alexander H. Hirschfeld, M.D., of Detroit, who has been acting as Chairman of the Subcommittee, submits the following report.

"There has been one meeting between the Subcommittee of the MSMS Committee of Psychologists and our Subcommittee. This meeting took place just before the first of the year and the psychologists reiterated their position that they wished the psychiatrists to accept the bill written by the psychologists and to endorse it verbatim. They also notified us that they would again introduce it in the legislature this year, which they did.

The psychiatrists again stated their position, that this is an interdisciplinary problem which should be worked out on a professional level before there is any attempt to force legislators to deal with it. The psychiatrists suggested that the matter should be further discussed on this level and offered to meet again. It was agreed to do this some time in the future."

IX. *Permanent Conference Committee with Michigan Hospital Association, Michigan League for Nursing, and Michigan State Nurses Association.*—Your members of this Committee held four meetings in conjunction with the representatives of the Michigan State Nurses Association, the Michigan League of Nursing and the Michigan Hospital Association. Prominent for the year were the discussions concerning staphylococcus infections in hospitals. A planning committee was appointed regarding a proposed joint conference on this subject.

There was considerable discussion regarding implementation and co-operation concerning regional defense and disaster plans. Further discussions were held, concerning recommeded hospital committees on patient care.

The representatives from the nursing association stated that the problem of personnel practices in hospitals was being reviewed again and would be brought up for further discussion at a later date.

X. *Committee on Courses on Medical Economics and Ethics.*—To fulfill your letter of May 18, 1959, I wish to report upon the activities of the Committee dealing with Courses—Medical Ethics—Medical Economics, MSMS, which are presented before the Senior Medical Class of the University of Michigan.

Two dozen lectures were given during the past year, covering all related subjects extending from "The History of Ethics" to "The Legalities of Nursing Homes in Michigan." To elucidate, here is our lecture schedule which you requested for a later and more complete report:

1. 7/8/58, "Development of a Fee Schedule"—by C. Howard Ross, M.D. The student is introduced to the legitimate dollar value of medical services.

2. 7/15/58, "A Doctor Walks Among Many Religions"—by Winslow G. Fox, M.D. This talk was well received, and the students were introduced to the world's religions, philosophies, and the doctor's sympathy to all.

3. 7/29/58, "The Doctor's Accounting System"—by C. Howard Ross, M.D. One begins with an office call and ends up with the income tax.

4. 8/5/58, "Ethics Involved in George Washington's Death"—by Darrell Campbell, M.D. What was good for 1799 is not necessarily good for us today.

5. 8/12/58, "History of Ethics"—by C. Howard Ross, M.D. The students were given a hop, skip and jump over two-thousand years of medical ethics and medical progress.

6. 8/19/58, "The Morality of Surgery"—by E. Thurston Thieme, M.D. "Have you got it—I want it" has been greatly modified by the arched eyebrows of the tissue committee.

7. 9/10/58, "Public Relations"—by R. Wallace Teed, M.D. The Medico's personal attitude towards his fellow man is outlined.

8. 10/8/58, "Professional Management"—by Robert Kanauer and Tim Hogan. Here the contrast is given between specialists in their field and the rugged individualist.

9. 11/12/58, "General Practice in a Small Community"—by John S. DeTar, M.D. and panel. Needless to say, there was much evidence of fireworks in this presentation.

10. 11/13/58, "General Practice in a Small Community"—by John S. DeTar, M.D. and panel. This was repeated before the senior Medical Class of Wayne State University in Detroit.

11. 10/22/58, "The Doctor in Court"—by Judge James R. Breakey. This was the most captivating hour. Judge Breakey drew from his rich experiences both as attorney and as jurist.

12. 11/5/58, "Michigan State Medical Society"—by William J. Burns, Executive Director. The students were greatly enlightened as to the mechanics of medicine at the state level.

13. 11/26/58, "The Orientation Committee"—by Norman Banghart, M.D. and panel. The students were treated with the same technique that one obtains when an initiate is introduced to his medical society.

14. 12/10/58, "Medical Manpower"—by A. C. Furstenburg, M.D., Dean, University of Michigan Medical School. This is always a fascinating experience, and "standing room only" was the watchword of the day.

15. 1/14/59, "The Veteran's Problem"—by William Bromme, M.D. Service connected and non-service connected disabilities were discussed.

16. 1/21/59, "Medical Communications"—by Hugh W. Brenneman. The students were indeed attentive.

17. 1/28/59, "General Practice in a Metropolitan Area"—by F. P. Rhoades, M.D. This presentation smacked of the DeTar flavor, but applied to a much larger community.

18. 2/11/59, "The Ethical Problems of Cancer in Geriatrics"—by C. Howard Ross, M.D. How shall we care for grandma even though she is doomed by nature?

19. 2/18/59, "Solo versus Partnership"—by Robert Kanauer and Tim Hogan. The advantages of partnership or associateship were outlined.

20. 2/25/59, "The Surgeon and His Fee"—by Charles G. Child, M.D., Director of Surgery, University Hospital. To the introductory remark that God should float down from Heaven, a pink check each month,—a student replied "Holy cow, that is celestial socialism."

21. 4/15/59, "The Organization of the Michigan State Medical Society"—by Milton A. Darling, M.D., President-Elect, MSMS. Dr. Darling carried on from Mr. Burns' talk and gave an intriguing slant to medicine at the state level.

22. 4/29/59, "Hospital Administration"—by Roger B.

Nelson, M.D. Here medical requirements were flavored by the battle of the budget.

23. 5/13/59, "Medical Records and Taxes"—by Robert Kanauer and Tim Hogan. This was somewhat a summary of four proceeding presentations.

24. 5/20/59, "The Legalities and Illegalities of Nursing Homes in Michigan"—by a panel consisting of Doctors A. Hazen Price, C. Howard Ross, F. W. Baske, assisted by Mr. and Mrs. Frank Marsh and Mr. and Mrs. Lloyd Johnson. The panel was in the form of a study committee. There was an enthusiastic turnout of students. The conclusions indicate that all nursing homes in Michigan should be licensed regardless of the number of beds involved.

XI. *Advisory Committee to Michigan Multiple Sclerosis Center.*—The members of the Advisory Committee to the Michigan Multiple Sclerosis Center have met with the Medical Advisory Committee of the Michigan Chapter of the National Multiple Sclerosis Center. Dr. Franklin O. Meister is current chairman of this latter committee. Dr. Kathryn J. McMorrow has resigned as Medical Director of the Michigan Chapter of the National Multiple Sclerosis Society and affiliation for patient care has been inaugurated with the Wayne State University College of Medicine, Department of Neurology, starting January 1, 1959. There has been a weekly clinic for the diagnosis of Multiple Sclerosis and the consultation with referring physicians under the direction of Dr. John T. McHenry, Assistant Professor of Neurology at Wayne State University College of Medicine.

XII. *Special Advisory Committee to Michigan State Board of Alcoholism.*—The Advisory Committee to the Michigan State Board of Alcoholism is very pleased to report some definite progress from their several meetings.

On January 1, 1959, Wayne State University, in cooperation with the Detroit Board of Health and the State Board of Alcoholism, opened an out-patient Alcoholism Clinic at Receiving Hospital. The Clinic, when fully operating, will be a training, research and treatment center and will employ a staff of two psychiatrists, two social workers, a part-time director and a part-time psychologist. Fees are based on the patient's financial abilities.

Dr. H. M. Pollard is proposing for the University of Michigan Medical School a combined treatment, training, research program. The plan is to study alcoholism as a disease of metabolism. They anticipate a biochemical study of the liver of the alcoholic, at various stages of the disease. If Dr. Pollard can secure approximately $159,000 it is estimated that the project can be in operation during the summer of 1959.

XIII. *Committee to Review the Problem of Medical Professional Liability.*—The problem confronting the Committee could be classified as follows:

1. The reported marked increase in cost of Professional Liability Insurance.
2. The tremendous judgements recently obtained.
3. The reasons for these adverse conditions.
4. The methods of correcting these claims and judgements.
5. Group liability insurance.

In studying these problems the literature was reviewed. The various plans used in such areas as California and New York were discussed, mainly because these areas have encountered the impact of 200 and 300 thousand dollar suits most frequently. The four leading insurance companies in Michigan covering liability insurance were interviewed, and have been most cooperative.

In brief we believe the teaching program to the doctors of medicine should be carefully reviewed. In fact we believe a new textbook should be written and this Committee should offer every encouragment and aid in writing such a text. We believe a careful approach should be planned by the professions of medicine and law jointly which will screen out the cases where no liability exists, but secure a just judgement wherever negligence is encountered.

XIV. *Liaison Committee with Michigan Medical Schools.*—This Committee has not met up to date of this report as no request has been received from the dean of either medical school and no question has been presented to the Committee by the M.S.M.S., that required a request on our part for a meeting.

XV. *Healing Arts Study Committee.*—This committee has not held a formal meeting, pending development of certain policies by the Society, which would make such a meeting fruitful.

XVI. *Liaison Study Committee on Hospital Staff Payments with Michigan Medical Service.*—The Liaison Study Committee on Hospital Staff Payments of MSMS was appointed to investigate the propriety of Blue Shield Payments (1) to one physician for the services of others who have signed their rights of collection over to him; and (2) for services rendered for interns and residents.

Mr. Dodd, the attorney for MSMS, stated that it was his opinion that Blue Shield's obligation is to the subscriber for the cost of medical service wherever the subscriber obtains this service. He also felt that if the physician signs over his rights of collection to another, Blue Shield is obligated to take care of the subscriber's financial responsibility to the limit of its contract, making payment to whomever has valid claim for services to the subscriber.

After considerable discussion the Committee recommended that MSMS go on record as condemning as unethical practice the collection or the attempt to collect fees for services rendered by interns or residents unless such services are performed under the direct supervision of and upon the responsibility of a staff member of a hospital having an American Medical Association Approved Training Program and which physician is also engaged in the active practice of medicine and unless the fees so collected are devoted to the furtherance of medical education and research.

XVII. *Special Committee to Meet With Michigan Department of Social Welfare.*—During the past year, your committee met with the Department on three occasions. We were able to help formulate policies on many problems, chiefly on the use of Federal Aid, help to County Hospitals, help to Visiting Nursing Associations, etc. The Commission again thanked the MSMS for its continued interest and help.

XVIII. *Michigan Chairman of The American Medical Education Foundation.*—At long last the MSMS House of Delegates last fall took action designed to increase the amount of money contributed by members to the A.M.E.F. A resolution that a notation of a $10.00 voluntary contribution to the A.M.E.F. be added to the Dues Notice was adopted unanimously. It was presented as a part of the Annual Report of The Council and the Chairman, D. Bruce Wiley, M.D., graciously called upon the State A.M.E.F. Chairman to read the resolution. Early returns indicate an increased amount of giving by Michigan physicians. What the total at the end of the year shows will determine the success or failure of the voluntary method, and whether or not a mandatory increase in dues is indicated.

XIX. *Liaison Committee with The Michigan Chapter of The Health Insurance Council.*—Two meetings were

held with the Michigan Chapter of Health Insurance Council. The first was primarily organizational and the second was devoted to exploring many fields of mutual interest and responsibility. It was agreed that the aim of all organizations in purveying pre-paid health coverage was to give the best and most complete service possible to the public at an economic cost. Our common enemy is the Federal assumption of these voluntary services. Further conferences are planned.

XX. *Committee to Review and Renegotiate the VA Home Town Medical Care Fee Schedule.*—This committee has met several times with representatives of the VA and has been able to reach tentative agreement on some fee inequities. Unfortunately, these are contingent on congressional acceptance of the VA budget, which has not been accomplished as of this date.

XXI. *Committee on Vocational Rehabilitation.*—The Committee had its organizational and only meeting on August 20, 1958.

At this meeting all the facets of the "Old Age and Survivors Insurance Disability Program" were studied and discussed.

The question was raised at that time as to why the Government did not pay the physician for his time and the expense of his stenographer for filing the initial application for the patient. The Committee decided to discuss this matter with the Committee on Medical Rating of Physical Impairment of the American Medical Association. This Committee did not feel that they had the authority to act on this matter and suggested that we bring the matter to the attention through the Michigan delegates to the American Medical Association for appropriate action through resolutions. This is being done.

The new booklet on Disability Determination Service (Old Age and Survivors Insurance) has been sent to all members of the Michigan State Medical Society.

XXII. *Committee on Blood Banks.*—The Committee on Blood Banks of the Michigan State Medical Society had no formal meetings for the year 1958-59. Various members solved the problems locally as they arose and have been of help in suggestions as to the content and presentation of the coming Work Shop of the Michigan Association of Blood Banks. The Work Shop this year will be put on for pathologists and pathology residents.

XXIII. *Committee to Select a Secretary to the Medical Care Insurance Committee.*—This Committee met twice to discuss the duties of this secretary and to interview candidates. The Committee recommended the employment of Herbert A. Auer. Mr. Auer is to help some with THE JOURNAL; and a part of his salary is to be charged to THE JOURNAL.

XXIV. *Councilor District Medical Care Insurance Committees.*—Twelve of the new Councilor District Medical Care Insurance Committees held organizational meetings during the past year and several held subsequent meetings to consider specific matters. The committees are organized to receive suggestions, recommendations, or complaints from the physicians and the public regarding medical care insurance. The committee scope is restricted and does not encroach upon any county society activities, especially in ethics and mediation.

The committees will become informed boards on the subject of medical care insurance, thus serving as local sources of current information.

Appointed by The Council of the Michigan State Medical Society and reporting direct to this body, the committees provide a stronger liaison between the practicing physician and the top executive body of MSMS.

The operation of the committees is guided by a set of statements approved by The Council. An orientation meeting for the CDMCIC chairmen was conducted in Detroit in December, 1958.

Several recommendations about medical care insurance matters were referred during the year to The Council for consideration.

The Council employed Herbert A. Auer as full-time Secretary for the Medical Care Insurance Committee and the CDMCIC activities. The Secretary helps to maintain continuity of attention and to facilitate the exchange of information between the CD committees, in addition to keeping permanent records and performing secretarial coverage at all meetings.

XXV. *Medical Care Insurance Committee.*—In carrying out its responsibilities, the Medical Care Insurance Committee met seven times during the past year.

Many individuals and organizations have been of service and assistance to the Committee. Appreciation is expressed to the individual doctors of medicine, to representatives of medical specialty groups, to officials and staff members of Michigan Medical Service and of the Michigan State Medical Society.

The Executive Committee of The Council in December, 1958, directed the MCIC to study medical care insurance needs for the elderly and to develop coverage recommendations. The MCIC recommendations to provide medical surgical protection for persons over sixty-five with modest and low incomes were approved by the Executive Committee of The Council in June, 1959. Specifically, the plan recommends that Michigan Medical Service be urged to make available a low-income ($2,500) contract. similar to the M-75 Plan A contract to persons over 65 who may be eligible and to do so at the lowest possible subscription rate.

Instructed by the 1958 House of Delegates to study alternate methods of paying physicians for services rendered to subscribers of prepayment plans, the MCIC with the aid of the MSMS Legal Counsel, spent considerable time on this matter during the year. Legal Counsel rendered legal opinion of the Enabling Act which served as a guide to the feasibility of plans presented to the Committee. Each county medical society was asked to encourage individual physicians to present proposals. A report will be presented to the 1959 House of Delegates.

The Committee was in close contact throughout the year with Michigan Medical Service concerning progress on the conversion of groups from the old MMS contracts to the new M-75 program. The sales presentations, MMS reported, required considerable more time than in the past since an entirely new program must be explained. The Committee recommended to The Council that the M-75 conversion deadline for the withdrawal of the old $2,500-$5,000 contracts be extended to December 31, 1960.

Many matters were presented during the year by individual physicians, by medical groups and by Michigan Medical Service dealing with procedure and fees. Conferences were held with leaders of several of the groups and Committee members individually researched some of the matters. Appropriate action was taken on these questions as they applied to the M-75 schedules.

During the first three quarters of 1958-59 there was a net gain of 618 signed Enrollment Authorizations in the MSMS Seal of Assurance Plan. The total number of participating physicians increased during the nine months from 3,913 to 4,531.

Mr. Herbert A. Auer was assigned in the spring to serve as secretary for MCIC, for the Councilor District Medical Care Insurance Committees and for the several other committees concerned with insurance and fee matters.

The Committee worked closely in an advisory capacity with its subcommittee—the Relative Value Study

Committee, headed by Luther R. Leader, M.D., Detroit. The major activities of the RVS Committee follows:

XXVI. *Relative Value Study Committee.*—At its September, 1958 meeting, The MSMS Council approved the general plan for the Michigan Relative Value Study. Shortly thereafter The Council appointed the Committee to carry out the instructions of the House of Delegates.

Letters were sent to the president of all known Michigan specialty groups requesting that one of their members be designated a representative to the Committee; and that this individual also serve as chairman of the specialty group's own fee committee with authority to speak for his society.

In December, 1958, a meeting was held in Detroit with two leaders of the California Medical Association Relative Value Study to discuss their experiences. Attending the meeting were members of the RVS and the Medical Care Insurance Committee, representatives of the specialty groups, chairman of the Councilor District Medical Care Insurance Committees and MSMS Officers and Councilors. A joint meeting of the MCIC and RVS was held concurrent with the larger orientation meeting.

Several subsequent meetings were held to schedule a timetable and to develop a preliminary RVS questionnaire. A qualified research consultant will be obtained so the study may proceed promptly with the aid of professional advice for the survey questionnaire and the research procedure. A progress report was sent in May to the representatives of the specialty groups.

The RVS Committee was requested to assist in the development of a revised Uniform Fee Schedule for Governmental Welfare Agencies. The Council and the Permanent Advisory Committee on Fees adopted the relative values and applicable unit values of the M-75 Plan-A and asked the RVS to determine relative values for procedures not covered in Plan-A. Values for such items as house calls, disability examinations, etc., were recommended by the Committee and approved by the MCIC, the Permanent Advisory Committee on Fees and the Executive Committee of The Council. Code numbers will be assigned to some of the new items, with printing scheduled in August and distribution in September.

XXVII. *Committee to Study Feasibility of Greater Participation in Blue Shield.*—The Committee to Study Feasibility of Greater Participation in Blue Shield was appointed by The Council in 1958. We considered the medical profession's attitude towards Blue Shield's dilemma of paying osteopaths, oral surgeons, and chiropodists when they are not participating members in Blue Shield. This is of particular concern with the inaguration of M-75.

After two meetings, it was our conclusion that The Council should advise Blue Shield that it cannot ethically, at the present time, pay any fee directly to any physician who is not a participating doctor of medicine.

The Committee also believes that greater participation could be obtained by the up-grading of non-surgical fees; that this could be accomplished through the study of the Michigan Relative Value Scale Committee.

XXVIII. *The following Council Committees held no meetings during 1958-1959:* (a) Committee on Rural Medical Service; (b) Liaison Committee with Michigan State Board of Registration in Medicine; (c) Liaison Committee with State Executive Office; and (d) Healing Arts Study Committee.

XXIX. *New Committees.*—Special Council committees appointed during the past year, of importance to the membership, were: (a) Relative Value Studies Committee, (b) MSMS Representatives to Committee to Study Feasibility of Greater Participation in Blue Shield.

Legal Matters

1. During the year, Legal Counsel Lester P. Dodd of Detroit spent considerable time in providing legal advice to the Medical Care Insurance Committee. The 1958 House of Delegates instructed Legal Counsel to work with the MCIC in studying the matter of alternative methods of paying physicians under prepayment programs. Legal Counsel attended five MCIC Committee meetings and held numerous informal conferences as was made necessary. Many hours of research were devoted to the preparation of a Legal Opinion of the Michigan Medical Service Enabling Act in connection with the alternative method of payment study.

2. Planning the MSMS headquarters building also threw a heavy load of new work on Legal Counsel Dodd; all steps in the architect's and contractors' proposals were approved by MSMS only after his minute legal consideration. Anyone who erects a building of any size becomes acquainted with the multitude of legal details surrounding the project—and these were greatly magnified by the size and scope of the MSMS edifice. In this regard, Mr. Dodd's constant study and advice was vitally important to the Committee on Big Look and to The Council.

3. Legal opinions or specific guidance were rendered by Mr. Dodd during the past year on the following matters:

(a) Resolution of Liaison Study Committee on Hospital Staff Payments (with Mr. Dodd attending the September 11 meeting of this Committee).

(b) Jenkins-Keogh Bill: authority to explore and pre-develop a plan, working with trust companies, to gain group benefits for M.D.'s from this legislation, when it is made law.

(c) "A Lawyer Looks at the Medical Profession"—a helpful article in JMSMS written by Mr. Dodd.

(d) Opinion re medical prescription for liquor.

(e) Opinion re liability of medical organizations for income taxes.

(f) Opinion re proposed constitution-bylaws of two component societies.

(g) Opinion re hospital policy of permitting patients' charts to be studied by attorneys.

(h) Two opinions on the sterilization law.

(i) Advice re hospitals being exempt from tort liability.

(j) Advice re eithical aspects of medical laboratory ownership.

(k) Advice re hospital x-ray departments co-operating with practitioners other than M.D.'s.

(l) Advice re practice of routine orders for antepartum care of patients in labor.

(m) Advice re a pseudo-medical machine being sold by laymen.

(n) Advice re transcript of medical testimony in a certain murder trial.

(o) Much legal advice in connection with the new MSMS Group Life Insurance Plan.

Mr. Dodd generously made himself available to component societies to present a very instructive and witty talk titled "How to Keep Out of Court." Some half-dozen societies took advantage of this kind offer.

New MSMS Headquarters Building

The ground-breaking ceremony for the new MSMS headquarters was held April 1, 1959. The building is now taking visible form in East Lansing under the architectural eyes of M. Yamasaki & Associates of Birmingham. An artist's concept of the building was featured on the cover of the July, 1959 JOURNAL. The 155' x 47' building, which will be ready for occupancy about next June, will not only be functional in design but also for many years shall be Michigan Medicine's beautiful monument to which MSMS members can point with pride as a symbol of their advancement in scientific and sociological progress.

Month by month, your Council has met the multitudinal details of erecting this building, always with the far-seeing advice of the Committee on Big Look, (W. S. Jones, M.D., Chairman), aided by the local "contact" appointed by that Committee, K. H. Johnson, M.D., of Lansing, and with the experienced guidance of Legal Council Lester P. Dodd.

Financing the new building: To pay for the building in full before it is completed makes it necessary that MSMS borrow funds against anticipated receipts from dues allocations of 1960 and 1961. To augment funds on hand, plus some reserves, plus proceeds from the sale of the property at 606 Townsend, Lansing, The Council must arrange a bank loan to liquidate the contractor's costs before completion of the edifice—a sum in the neighborhood of $350,000.00.

The Committee on Big Look has been given the additional task of serving as a Special Gifts Committee, to seek individual or group donors who for themselves or as memorials to relatives or friends may wish to furnish rooms in the new building. Among group donors who have signified intention to aid interior design are: (a) the Past Presidents Committee; and (b) the Woman's Auxiliary to MSMS. Our thanks go to these groups for their generous offers.

MSMS Group Insurance Programs

1. The group health and accident insurance program, with Provident Life and Accident Insurance Company of Nashville, Tennessee, as carrier, has had such remarkable success that in the near future the Plan will announce a bonus benefit to all policy holders. Details concerning this bonus will be sent as soon as the program is cleared through the Committee on Study of Insurance Programs for MSMS Members of which Milton A. Darling, M.D., Detroit, is Chairman.

2. The more recent group life insurance plan of the Society shows gratifying acceptance, despite its "youth." Offered to the membership only last August and made effective March 1, 1959, the plan already numbers 1,034 subscribers. The MSMS Committee on Study of Insurance Programs for MSMS members has sent four announcements inviting the membership to take advantage of this program which is carried by Mutual Benefit Life Insurance Company of New Jersey.

Woman's Auxiliary

(Submitted by Mrs. Robert E. Reagan, *President*)

It is with real pleasure and pride that I, as President of the Woman's Auxiliary to the Michigan State Medical Society, make this annual report to The Council. This past year has been a busy, interesting and very rewarding year to us as an Auxiliary. We hope and trust that we have served the cause of organized medicine in Michigan as you would have us do.

Probably the most exciting thing that has happened to us this year is the nomination and election of Mrs. William Mackersie of Detroit, one of our Past Presidents, to the office of President-Elect of the Auxiliary to the American Medical Association. This is the first time that Michigan has been so honored and we are very proud of Kathleen!

Before recounting any of our accomplishments during the year, I should like to thank the members of our Advisory Committee and the chairmen of two other committees, specifically Dr. R. W. Shook, of Kalamazoo, and Dr. R. W. Teed, of Ann Arbor, for their unfailing interest and support. Our questions have been given prompt, courteous attention. Thank you!

One of the joys of holding this office is the opportunity to know and work with the staff in Lansing. This office has grown in work to be done and challenges to be met to the place where it could not be done on a volunteer basis without the efficient, friendly help that has been available to us. This applies, too, to the Detroit office, to Michigan Medical Service and the Michigan Health Council staff. All of these people have helped us enrich our program. To all of them, again, we say "THANK YOU"!

It is our reasonable expectation that we will, at the time of our fall Convention, be able to make a substantial donation toward furnishing the "All Purpose" room in the new MSMS building. We want to be a part of this undertaking and we hope, in the future, to be able to center more of our activities around our Lansing headquarters.

Our opportunities for service have continued to expand and so have our expenses. At present, our budget is about twice our estimated income. While this may be accepted practice (?) in Michigan fiscal policies, it is not a situation with which we are happy or content. Also, to come before our Convention will be a proposal to increase our dues. We believe that with this increase we may have enough to pay our bills and substantially increase our state contribution to the American Medical Education Foundation. That contribution this year amounted to nearly $5,000.00; all but $200.00 of it came through county activities. We believe that this is a "natural" for the Auxiliary and will continue to publicize A.M.E.F.

In line with national policy, we have dropped the designation of a "Public Relations" committee and now call it "Community Service." That seems to better define the sort of thing the doctor's wife does in the community. We believe that conscientious, cheerful community service will certainly aid medicine's public relations. We are extremely proud of the report we were able to make to national headquarters in this important field. Michigan doctors' wives are very busy, and very effective, in their individual communities.

"Paramedical Careers Recruitment" continues to be one of our major activities. We have extended our interests beyond the Future Nurses without in any way detracting from our nursing recruitment program. In this new program we can better recruit boys and young men. We were happy to participate in the Career Day activities of the Rural Health Conference held in East Lansing and were particularly pleased at the number of boys present.

One county Auxiliary has been given the money to educate a medical student, now at the end of his Junior year. Nearly $12,000.00 has been given or loaned this year by county Auxiliaries for nursing education. We are very proud to be one of the leading state Auxiliaries in the country in this field. We have actively stimulated the use of the AMA film, "HELPING HANDS FOR JULIE" in high schools across the state and continue to use the excellent "Medical Associates" brochure.

Along with other changes and adjustments, one project of many years' standing has been discontinued, that of "TODAY'S HEALTH." Now that the magazine will come to the office of every member of the AMA as part of his dues, the project has been discontinued as an Auxiliary project except that the magazine may still be given through county auxiliaries as a public relations media.

We continue to have a fine, friendly relationship with the members of the Student AMA Auxiliaries in our two medical schools and look forward to the time when these young women will be active members of our Auxiliary; hoping, of course, that many of them will choose to stay in our state.

The state officers have found a very warm, interested and friendly feeling among our members and have enjoyed their contacts with Auxiliary members in neighboring states and Canada. It has been a pleasure to serve the Auxiliary this past year and to further, as a state, the stated objects of our National Auxiliary, which are:

1. To assist the American Medical Association in its program for the advancement of medicine and public health;

2. To co-ordinate and advise concerning the activities of constituent auxiliaries;

3. To cultivate friendly relations and promote mutual understanding among physicians' families.

This, as a state, we have done. It has been a good year.

Public Relations

We must always be dissatisfied with our PR program. If we do not maintain constant constructive criticism, we will neither attain nor hold medicine's P.R. goals. We will fail in the necessary repetition of medicine's story. To become complacent is to lose all ground previously acquired.

Today, the trend nationally and statewide is to compliment the scientific progress of the medical profession but at the same time emphasize the increasing cost of medical care and a concomitant economic royalism on the part of medical doctors. This makes fertile ground, ideal soil for the growth of any and every type of socialistic medical "weeds."

This is true today, particularly due to stepped up programs of opponents of the presently-used system of medical care distribution.

Noted below is a digest of a portion of the monumental amount of work accomplished by the Public Relations Committee. It is impressive and valuable. But in evaluating over-all efforts, we note a continued and dangerous reliance on the MSMS and AMA programs by county medical societies, rather than the development of well-rounded, aggressive programs on the county level to complement the state and national programs.

However, this conclusion is arrived at by virtue of limited knowledge, for no detailed and comprehensive evaluation has been made of each county medical society program since 1954 when "Winning Friends for Medicine" was set up as a manual for county medical societies.

A recommendation on this subject follows.

1. Here are one-sentence summaries of some of the activities carried out by MSMS P.R. work during 1958-59.

(a) *Motion Pictures,* two in the making—dedication film for new MSMS building; cost of medical care.

(b) *Inter-professional liaison* by development of Michigan Association of the Professions, also *intra-professional liaison, hospital staff* and *county medical society visits* by MSMS officers and staff, work with Michigan Health Council.

(c) *Science Fairs,* co-operation with county societies in *honoring top exhibitors.*

(d) *Exhibits* at 4 major *county and the Michigan State fairs,* depicting role of family doctor.

(e) *Conference on Medical Writing for the Mass Media,* sponsored by MSMS in co-operation with Michigan State University.

(f) Michigan Rural Health Conference, finest to date —800 in attendance, 65 speakers.

(g) *Live surgical telecast to public* during Michigan Clinical Institute over statewide TV network.

(h) *Mass communications, news releases* to press, radio and TV.

(i) Civic affairs, *legislative activity* on state and national matters of interest, liaison with county society committees. *134 bills in State Legislature affecting health and medicine;* action on Forand bill in congress.

(j) Assistance to the Editor of MSMS Journal in analysis and recommendations re *format* of publication.

(k) *MCI speaker's program, 42 service clubs* provided with M.D. speakers.

(l) *Television* productions, *"The Family Doctor." Three one-hour shows* over Detroit, Kalamazoo and Grand Rapids TV stations.

(m) Public Relations *Library,* acquisitions include *four new motion pictures* and countless *materials of reference.*

(n) *Media Code,* adopted by MSMS after development by PR Committee, *distributed to county medical societies* for local adoption.

(o) *Publications,* prepared in part or all, include Legislative Report, Auxilium, Journal PR Report, Journal articles, Secretary's Letter, meeting announcements, etc.

(p) *Pamphlet* production, extensive *revision of booklet "Planning Your Career"* completed this year, 5th printing.

(q) *Program for celebrating 50th, 75th or 100th Anniversaries of County Medical Societies,* tentative plans made and initial contact made with societies.

2. Of significance this year was the final incorporation and development of The Michigan Association of the Professions into a self-supporting and integrated mechanism for promoting and protecting professionalism.

The five professions of medicine, law, dentistry, architecture and engineering were the original professions represented in the organization. Subsequent to incorporation time, other professions have requested admittance and undoubtedly will be added.

The program of MAP is based on four fundamental activities; namely, legislation, public relations, education (below the professional level), and business services and techniques. Wm. M. LeFevre, M.D., of Muskegon, was elected its first President and G. B. Saltonstall, M.D., Charlevoix, is a Director.

The promise of this organization is unlimited and its early success has attracted national attention with highly complimentary comments coming from high places. This organizational effort may very possibly rank as one of Michigan's greatest "firsts".

3. The work of MSMS Public Relations in developing and promoting the Michigan Health Council has flowered during the past year. With a program unparalleled in the country, the Michigan Health Council has proceeded to shore up the private enterprise system by repeatedly carrying out programs on a voluntary basis which might otherwise have fallen to governmental agencies.

4. As in the past, every credit is due those who have labored so incessantly to advance our MSMS PR program. But it is mandatory that the individual doctor and county medical society again be stimulated to assume their required roles in the overall public relations effort of the medical profession.

A recommendation on this subject follows.

Matters Referred to the Council by the 1958 House of Delegates

1. A poll of MSMS members on their views re social security coverage for physicians was taken during the past year and the returns were certified by a special committee of the House of Delegates. The committee reports that as of January 30, 1959, twenty-eight hundred and twenty-nine (2,829) returns were received with seventeen hundred and eighty-one (1,781) in favor of social security and ten hundred and forty-eight (1,048) against the inclusion of compulsory social security for doctors of medicine.

2. Resolution re distribution of free polio vaccine to the medically indigent. This was referred to the Legislative Committee which notified state officials and members of the Legislature that the Michigan State Medical Society favored House Bill No. 198 to appropriate $400,000.00 for the purchase of poliomyelitis vaccine for distribution through county health departments. No action on this proposal has been taken by the Legislature, and, due to lack of funds, the outcome is problematical.

3. Proposed legislation for control of medical staff in public hospitals. The Council discussed the need for legislation on this matter. Legal Counsel reported that the Pontiac General Hospital case has been de-

cided with the court upholding fully the position of the Hospital. Legal Counsel recommended that the matter of specific legislation be deferred until the effect of this decision is fully evaluated. In like manner, the introducer of House Bill No. 105, aimed at solving the problem, requested that his proposal be shelved pending anticipated Supreme Court action.

4. The resolution creating a Study Committee on Alcoholism resulted in the appointment of a committee whose annual report will be published in the Supplemental Report of The Council.

5. Proposed bill to regulate operation of ambulances. The MSMS Legislative Committee, with the assistance of the Michigan Regional Committee on Trauma, American College of Surgeons, drafted legislation which was introduced into the 1959 Legislature as House Bill No. 338. From the start, the bill met with the vigorous opposition of the Michigan Funeral Directors Association and their friends, with the result that the bill was not adopted by the 1959 Legislature.

6. Further interest in diabetes detection. This resolution was ably implemented by the MSMS Committee on Diabetes headed by William M. LeFevre, M.D., of Muskegon. The annual report of this Committee is respectfully invited to the attention of every member of the House of Delegates.

7. The resolution recommending that members of Blue Shield Board of Directors be representative of the various MSMS Councilor Districts was referred by the introducer, W. D. Allen, M.D., of Bay City, to the Board of Michigan Medical Service. This Board recommended that MSMS create a special study committee on this subject, which was done by the Speaker. The Annual Report of the Ad Hoc Study Committee on Regional Election of MMS Board Members will be presented to the 1959 House of Delegates.

8. Resolution re recognition of psychiatrically-ill patients in Blue Shield's M-75 contract was invited to the attention of Michigan Hospital Service and of Michigan Medical Service. Michigan Hospital Service on November 26, 1958, submitted the following reply: "Blue Cross-Blue Shield in Michigan both provide 30 days of in-hospital benefits for mental and nervous cases which are substantially more than provided by most of the blue cross-blue shield plans in the country. It is also more than is provided by a great deal of commercial insurance coverage. We would like very much to give the same benefits for nervous and mental cases which we provide for general medical and surgical cases, but the additional cost is substantial and the Board has been reluctant to add benefits and costs in the face of mounting public resistance to necessary rate increases. The whole matter really becomes one of priority. Psychiatric care is very important and is becoming increasingly more important. I assume that eventually both Blue Cross and Blue Shield will find ways to provide additional benefits for such care. Your letter and the accompanying resolution will be referred to the Michigan Hospital Service Board of Trustees at its next regular meeting." This letter was signed by William S. McNary, Executive Vice President of Blue Cross (November 26, 1958).

9. The motion instructing The Council to send information to Delegates quarterly on the progress in Blue Shield's programs has been followed.

10. The resolution re no distinction in payment between nonparticipating and participating physicians in Blue Shield and asking that a complete study of alternate methods of payment for services rendered by nonparticipating physicians be undertaken by the MSMS Medical Care Insurance Committee, in conjunction with our Legal Counsel, has resulted in a great volume of work by the MCIC. The annual report of this Committee, published herein, is respectfully invited to the attention of every member of the House of Delegates.

11. The MSMS Liaison Study Committee on Hospital Staff Payments presented a resolution, "condemning as unethical practice the collection of, or the attempt to collect, fees for services rendered by interns and residents unless such services are rendered under direct supervision of and upon the responsibility of a staff member of a hospital having an American Medical Association-approved training program, and which staff physician is also engaged in the active practice of medicine and unless the fees so collected are devoted to the furtherance of medical education and research." This resolution was referred by The Council to its AMA Delegation for implementation at the December, 1958 AMA Minneapolis session. The Chairman of the Delegation subsequently reported that Resolution No. 60 adopted at the June, 1957, New York AMA Annual Session already covered this subject as follows: "Resolved that the AMA by its House of Delegates condemns any payment to or on behalf of any resident, fellow, intern or other house officer in similar status who is participating in a training program."

Recommendations

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1960 on the occasion of the Annual Michigan Day, as recommended for many years by the House of Delegates.

2. That The Council be authorized to arrange Councilor Conferences, prior to the Annual Session, to continue communication with and import information to the membership, as during the past two years.

3. That an evaluating team visit those county medical societies that request same. This team would review county medical society activity as compared with good organizational practice and make recommendations for improved organization, administration and services, with the end in mind of increasing the strength of county medical societies and improving their PR potential. This survey would be made only on request by the county medical society. The evaluating team would consist of state and county officers plus state staff members, and such other outside experts or advisors as the evaluating team deems necessary. Upon completion of the evaluation concrete recommendations would be offered.

4. That during the months of October and November, 1959, a team of MSMS speakers arrange an itinerary whereby it may efficiently cover a major portion of the lower peninsula. Said team would report on the actions of the House of Delegates, the plans for the future of MSMS, and would attempt to stimulate organizational and PR awareness on the part of county medical societies and individual M.D.'s. The Upper Peninsula would receive the same service in the spring of 1960.

Respectfully submitted,
THE COUNCIL,
A. E. SCHILLER, M.D., *Chairman*
T. P. WICKLIFFE, M.D., *Vice Chairman*
O. B. MCGILLICUDDY, M.D.
H. J. MEIER, M.D.
RALPH W. SHOOK, M.D.
C. ALLEN PAYNE, M.D.
H. H. HISCOCK, M.D.
C. N. HOYT, M.D.
E. S. OLDHAM, M.D.
D. G. PIKE, M.D.
O. J. JOHNSON, M.D.
W. M. LEFEVRE, M.D.
B. T. MONTGOMERY, M.D.
B. M. HARRIS, M.D.
D. BRUCE WILEY, M.D.
G. THOMAS MCKEAN, M.D.
W. W. BABCOCK, M.D.
WILLIAM BROMME, M.D.
K. H. JOHNSON, M.D., *Speaker*
J. J. LIGHTBODY, M.D., *Vice Speaker*
G. B. SALTONSTALL, M.D., *President*
MILTON A. DARLING, M.D., *President-Elect*
D. BRUCE WILEY, M.D., *Secretary*
W. A. HYLAND, M.D., *Treasurer*
G. W. SLAGLE, M.D., *Immediate Past President*

ANNUAL REPORT OF THE LEGISLATIVE COMMITTEE—1958-1959

This year, for the first time in many years, neither political party had complete control of the Legislature. The Senate remained predominantly Republican, but deaths, resignations and serious illnesses kept changing the balance of voting strength in the House which started the session with an even 55-55 split. This stalemate, coupled with Michigan's most severe fiscal plight in history, extended the session to a new record for longevity.

Each party stood firm as lawmakers sought the magic formula which would (1) provide sufficient new revenues, (2) be equitable in its application to the state's eight million people, and (3) be consistent with past declarations of party policy. At the time of this writing (July 10) no solution was in sight.

With all of its preoccupation with finances, the Legislature still found time to introduce over a thousand bills this year, of which an increasing number (134) were of interest to the medical profession. They dealt with a multitude of health problems, from mine safety, water contamination and air pollution to denturologists, sanatarians and physical therapists. Space does not permit a historical review of each bill in which your Legislative Committee had to take an interest this year. Fourteen measures, however, give a cross section of the legislative activity facing the profession in 1959:

House Bill 105 was introduced by Pontiac Representative Arthur Law in an attempt to give the boards of trustees of city-owned hospitals more clearly defined authority over their medical staffs. An outgrowth of recent lawsuits brought against Pontiac General Hospital, and the Gogebic County Hospital case of a few years ago, the bill was finally shelved by its introducer who was fearful that its passage might be an undue influence on the Supreme Court's decisions on appeals of those cases still pending.

House Bill 156, and its duplicate Senate Bill 1117, would have revised the commitment laws pertaining to mentally ill. It would have provided for, among other changes, the voluntary commitment by certification of three medical experts without the necessity of going through the presently required probate court procedure. The bills died in Committee, but probably will be revamped before introduction next year.

House Bill 198 would have appropriated $400,000 to the state health department for purchase of Salk vaccine for distribution through county health departments and physicians' offices, in somewhat the same manner as is now done with other state-supplied vaccines. An attempt was made to attach the proposal as an amendment to the annual appropriation bill for the state health department, but this was defeated on the House floor.

House Bill 246 was a repeat of last year's bill setting up a new state board to certify psychologists. It again passed the House, but the Senate State Affairs Committee revised it before reporting it to the Senate floor. The Committee made certification a function of the Superintendent of Public Instruction instead of the proposed new board. The substitute bill also spelled out the practice of psychology and the prohibition on psychologists from practicing medicine and psycho-therapy. Agreement between the psychiatrists and the psychologists to the rewritten bill assured its passage.

House Bill 338 was introduced by MSMS at the direction of the 1958 House of Delegates. It required ambulance owners to provide their vehicles with minimum first aid equipment and have them operated by first aid-trained attendants. Intensive opposition to the bill by the Michigan Funeral Directors Association and their friends killed the bill in Committee.

House Bill 511 was a near duplicate of last year's proposal for the annual registration of M.D.'s. It passed the House again this year, although this time no attempt was made to increase the $5.00 annual levy; but like its predecessor, it too died in the Senate State Affairs Committee. Just before a rules deadline shut off consideration of the proposal House Ways and Means Committee members attached the bill's provisions as an amendment to Senate Bill 1206 *(see below)*.

MSMS successfully sought amendments to make the bill conform to recommendations of the 1957 House of Delegates, which declared that new sources of operating revenue must be found for the Board if it is to serve the profession and the people of this state . . . that The Council recommend changes in the medical practice act which will effect some relief for the new M.D.'s and provide adequate funds for the Board's duties . . . if such changes must necessarily embody a form of annual registration of M.D.'s that this House of Delegates endorses a fee of not to exceed five dollars."

Senate Bill 1206, as drafted, would have provided only for the temporary licensure of non-citizen doctors of private practice, under certain circumstances. As finally passed, as an adjunct to House Bill 511, it included annual registration of all Doctors of Medicine at a $5.00 fee.

Senate Bill 1040 would have permitted, in its original form, the utilization of surplus bed space in the state's four T.B. sanatoria for other purposes, with priority to be given to mental health patients. The final version as passed, however, reserved such space solely for mental patients, preventing possible establishment of a state general hospital cadre.

Senate Bill 1086 would have provided that county health departments in counties having less than 100,000 population need not be directed by a physician. A result of, and an attempt to correct, a local situation in a southwestern Michigan county, the bill was shelved in Committee when its effect on other areas of the state was brought to light.

Senate Bills 1177 and 1201 dealt with the registration and control of atomic energy and radiation in the state. Simply stated, the first bill continued the present registration of x-ray machines with the health department and set up an ex-officio atomic energy commission to guide future developments in the radiation and atomic fields. The second established a commission, an advisory board, a state director and instituted annual inspection and registration of all radiation and atomic facilities with this newly created organization. Neither bill emerged from the Senate State Affairs Committee.

Senate Bills 1302 and 1303 amended the crippled and afflicted children acts to raise the present $19 per day limit on payments to hospitals for children's care to a new maximum of $22. Before their passage however, the two bills were further amended on request of the State Auditor General's office and over the vigorous objections of MSMS and the Michigan Crippled Children Commission, to require physicians and hospitals to submit their bills for payment within 30 days after the patient's discharge from the hospital, instead of the present 90 day allowance. The effect of this change, particularly on some physicians who, for good reason, do not bill so quickly, may require a liberalization in next year's legislative session.

The above examples serve to illustrate the variety of the legislative problems faced each year by the medical profession here in the state. On the national scene two proposals were of particular importance to the profession this year.

The Forand Bill (HR 4700) would provide O.A.S.I. beneficiaries with hospital, medical, surgical and nursing home benefits under the framework of the national social security program. In keeping with its past resistance to creeping socialized medicine schemes cloaked in the guise of social security "benefits", the MSMS steadfastly opposed the bill.

The Simpson-Keogh Bill (HR 10) would grant tax equity to self employed (professional) persons in the establishment of their retirement programs, and we supported this bill. At this writing neither HR 4700 nor

HR 10 had been approved by both houses of Congress.

Any congratulations seemingly due this Committee must however, be shared by our many colleagues who counsel with their Legislators and otherwise take an active interest in their patients' political as well as their medical well being.

Respectfully submitted,
L. A. Drolett, M.D., *Chairman*
O. B. McGillicuddy, M.D., *Vice Chairman*
A. B. Aldrich, M.D.
J. J. Boccia, M.D.
Milton A. Darling, M.D.
J. C. Elliot, M.D.
O. K. Engelke, M.D.
K. H. Johnson, M.D.
T. J. Kane, M.D.
P. T. Mulligan, M.D.
J. S. Rozan, M.D.
H. A. Towsley, M.D.
R. V. Walker, M.D.
D. Bruce Wiley, M.D.

ANNUAL REPORT OF PERMANENT ADVISORY COMMITTEE ON FEES—1958-1959

The Permanent Advisory Committee on Fees met three times during 1958-59 to carry out its assignment as the Committee of the MSMS House of Delegates charged with the responsibility of considering, evaluating and recommending action on all MSMS committee work dealing with fees.

The Committee worked closely with the Medical Care Insurance Committee and its Relative Value Study Subcommittee, reviewing all actions of the two groups. Considerable time was spent studying the proposed relative values for the revised Uniform Fee Schedule for Governmental Welfare Agencies and the recommendations of the Relative Value Study Subcommittee were approved.

The Committee received comments from interested physicians and official medical groups about matters concerning fees. Correspondence and resolutions were studied and given appropriate action during the past year.

The Permanent Advisory Committee on Fees extends an invitation to all physicians and groups to present their thoughts and feelings about questions regarding fees.

Respectfully submitted,
G. C. Penberthy, M.D., *Chairman*
L. J. Bailey, M.D.
H. F. Falls, M.D.
H. W. Harris, M.D.
Wm. M. LeFevre, M.D.
M. L. Lichter, M.D.
L. R. Leader, M.D.
J. W. Rice, M.D.
R. K. Whiteley, M.D.

ANNUAL REPORT OF THE CHILD WELFARE COMMITTEE—1958-1959

During 1958 the subcommittees of the Child Welfare Committee have conscientiously pursued their respective programs.

The subcommittee on adoptions prepared a resolution which has been presented to all County Societies and will be presented to The Council of the Michigan State Medical Society discouraging M.D.s participation in independent adoptions. This proposal has stimulated other disciplines interested in the problems of adoption to initiate similar action.

The school health subcommittee has continued its efforts to establish a uniform school health form, and has cooperated with the State Health Department in the production of a movie on the pre-school health examination. Problems of education of the handicapped are being studied.

The subcommittees of ophthalmology and otolaryngology have studied the problems of safety in relation to defects of vision and hearing. Both committees are continuing their programs with the State Health Department, surveying the vision and hearing of school children. They have also been fostering pilot studies on the pre-school child.

In cooperation with the Immunization Advisory Committee of the State Health Department, the CWC adopted a statement of policy on polio immunization. All doctors have been encouraged to make every effort possible to eliminate unnecessary death and disability not only from polio but also other diseases preventable by immunization.

The Child Welfare Committee has approved a standard form for perinatal mortality research and has encouraged extension of perinatal mortality and morbidity studies throughout the State.

In late June, the Child Welfare Committee co-sponsored a conference in Ann Arbor on "The Physician's Role in the Problem of Mental Retardation."

The Committee wishes to express its appreciation for the assistance and cooperation of the Michigan Department of Health, the Michigan Crippled Children Commission, the Department of Public Instruction, and the executive staff of the Michigan State Medical Society.

Respectfully submitted,
Robert M. Heavenrich, M.D., *Chairman*
W. S. Jones, Jr., M.D., *Vice Chairman*
R. T. Blackhurst, M.D.
C. E. Booher, M.D.
V. G. Chabut, M.D.
H. C. Comstock, M.D.
E. L. Cooper, M.D.
Goldie B. Corneliuson, M.D.
A. J. Cortopassi, M.D.
Carleton Dean, M.D.
N. E. Durocher, M.D.
R. G. Ferris, M.D.
A. C. Gholz, M.D.
J. P. Klein, M.D.
O. L. Lepard, M.D.
F. J. Margolis, M.D.
Don Marshall, M.D.
R. J. Mason, M.D.
J. C. Montgomery, M.D.
W. J. Morrow, M.D.
M. H. Pike, M.D.
H. A. Towsley, M.D.
R. H. Trimby, M.D.
A. L. Tuuri, M.D.
E. H. Watson, M.D.
C. F. Wible, M.D.
R. K. Wise, M.D.

ANNUAL REPORT OF PUBLIC RELATIONS COMMITTEE—1958-1959

The Committee, during the past twelve months, has acted in two broad areas of public relations—(1) the development of new projects to meet the changing needs of the medical profession and (2) the supervision of a basic PR program.

In each general area the Committee strove to strengthen the position of the practicing doctor of medicine as well as the Michigan State Medical Society.

The following paragraphs describe the key projects and new activities of the PR Committee and staff.

Conference on Medical Writing.—In co-operation with the Journalism Department, Michigan State University, the MSMS sponsored a one-day Conference on Medical Writing for Mass Media at Kellogg Center, East Lansing. The workshop session provided an opportunity for doctors of medicine and the working press to sit down and discuss improved methods of achieving a common goal—the accurate communication of legitimate medical information to the public. Attending were county medical society representatives, medical bulletin editors, news writers and science editors.

Television.—The production of five one-hour "The Family Doctor" television shows was approved, three of which have been produced within the past 12 months. The Committee felt that local TV broadcasts over out-state stations would be a direct service to practicing physicians. Thus far, the live program has been televised in Detroit, Kalamazoo and Grand Rapids. Local personnel are used in each production. MSMS has also advised and is co-operating in TV programs being telecast over stations in Jackson, Lansing, Bay City, Traverse City and many other stations in the state.

MSMS Media Code.—A guide to co-operation between doctors, hospitals and the press, radio and television in the news field was developed by the PR Committee and adopted by The Council. The Code was recommended for local adoption by county medical societies and several societies as well as hospitals and newsmen have praised this long-needed document.

County Society Anniversary Celebration Program.—As another service to county medical societies, the PR Commitee plans to offer a co-ordinated program for publicly celebrating 50th, 75th and 100th anniversaries of the organization of local societies. The program will provide an appropriate method of calling attention to contributions of medical societies and scientific advancements through the years.

Intra-Professional Liaison.—The communications program between MSMS, the county societies, and individual members has continued this year by means of visits to county medical society and hospital staff meetings. Special emphasis was given to Wayne County for in this large Society, it is difficult to exchange information with members except through the relatively small meetings of hospital staffs. In other areas it was possible for officers and the staff to attend regular medical society meetings.

Motion Pictures.—Two motion pictures are in the making by MSMS. A short documentary film of the new MSMS headquarters is currently in production and will be shown at the dedication ceremonies. The second film, as yet untitled, on the cost of medical care, is in the script-writing stage under the supervision of a special group of PR Committee members.

Science Fairs.—MSMS aided county medical societies who wished to honor winning scientific exhibitors at regional Science Fairs. Medical society participation has increased markedly in the past few years. Seven county societies now actively support these local projects.

Exhibits.—Educational exhibits at the Michigan State Fair, Ionia Free Fair, Saginaw County Fair and the Upper Peninsula State Fair were co-sponsored with county medical societies. The theme of the exhibit was the Family Doctor and his impressive array of office equipment. Distributed to exhibit visitors were 20,000 Emergency Medical Cards and Family Health Record booklets. MSMS also exhibited at the national meeting of the Medical Assistants Society and the Michigan Rural Health Conference.

Thanks are due the county societies, Auxiliary and Medical Assistants for their excellent co-operation.

Michigan Association of Professions.—The inter-professional activity of MSMS this year culminated in the final incorporation and development of the Michigan Association of Professions into a self-supporting organization for the promotion and protection of professionalism. Five professions are represented at present: medicine, law, dentistry, architecture and engineering. The four fundamental activities of MAP are legislation, public relations, education below the professional level, and business services and techniques. Wm. M. LeFevre, M.D., of Muskegon, is the Association's first president. G. B. Saltonstall, M.D., Charlevoix, is a director.

Pamphlets.—Completed this year was the fifth extensive revision of the important educational booklet "Planning Your Career." This aid to medical assistant recruitment was revised with the help of the Michigan Health Council Careers Committee. Since this popular booklet is in such great demand by student counselors, schools and health groups, the initial run for the fifth printing was again 10,000 copies.

Public Relations Conference.—The County Secretaries-Public Relations Conference was held in January. Society officers and PR chairmen heard, on the PR portion of the program, excellent presentations on the need for professional leadership, as well as discussion of many PR problems.

Mass Communications.—By means of press releases to all Michigan newspapers, radio and TV stations, MSMS informed the public of medicine's activities and policies during the 1958-59 year. In addition to broad releases, special stories were written and distributed to home-town newspapers of individual doctors who had received awards, were accorded special recognition or who participated in postgraduate activities.

The MSMS PR staff worked directly with the news writers at the Annual Session and the Michigan Clinical Institute. Under direction of the Press Committee, extensive coverage was given to medical news created by these postgraduate sessions. Special attention was given to the live surgical public telecast during the MCI. For the second year, a network of six TV stations carried the live show. The program had powerful PR impact and was made possible through the co-operation of Smith, Kline & French Laboratories and its TV personnel and equipment.

MSMS staff also served as liaison and co-ordinator of independently-produced TV shows shown during the MCI presented by Howard Whitman for the Upjohn Company.

In radio, MSMS and component county medical societies co-sponsored weekly transcribed health broadcasts over nearly 20 Michigan stations. Booking and distribution are arranged through MSMS. MSMS also continued its sponsorship with the University of Michigan of locally-produced health series over a broad network of radio stations.

Speakers Program.—Especially successful was this year's speakers program during the Michigan Clinical Institute. Forty-two M.D. speakers appeared before Detroit area service and luncheon clubs. Various health topics were presented as well as an explanation of MSMS postgraduate activities. Better public understanding of organized medicine was sought in these presentations.

Publications.—MSMS prepares many informational publications during the year, including the Legislative Report (12 issues), three issues of The Auxilium, Secretary's Letter, meeting announcements, Journal articles, and the monthly Journal PR Report. In addition, assistance was given to the Editor of The Journal in analyzing and recommending certain format changes in The Journal.

PR Library.—The PR Library is constantly acquiring additional reference material of aid to county societies and individual members. Also, transcriptions, visual aids, and pictures are being added to the catalogue. Four new films were purchased for showing by M.D.'s to public audiences. Of special importance is a concerted effort being made to acquire broad references on the socio-economic side of medicine—with special attention to the field of aging and actions of governmental and private agencies in the area of medical care.

Civic Affairs.—This Committee praises the county medical societies and individual members for evidencing a vigorous interest in civic affairs both on the state and national level. In their home communities, too, doctors of medicine have shown a greater leadership in community affairs. By sending county society delegations to Lansing as part of the MSMS Legislative Visitation Program, a greater rapport has been built between elected officials and the practicing doctor of medicine. The importance, and need for expansion, of these activities cannot be over-emphasized.

Michigan Rural Health Conference.—A capacity crowd from 120 communities attended the Twelfth Annual Michigan Rural Health Conference in East Lansing,

April 8 and 9. Over sixty recognized experts covered topics such as milk inspection, danger of excessive use of antibiotics, animal disease, highway safety, and many other health and safety subjects.

Three hundred representatives from forty public and parochial high schools attended the new Health Careers Day program. This conference was started as part of the MSMS PR program and continues to receive guidance from MSMS PR personnel.

Looking Ahead.—The PR program of MSMS is being continually evaluated and adapted to meet existing needs.

This Committee recognizes that PR begins in the doctor's office. It also recognizes that Medicine must accept those responsibilities for improving or correcting relations with the public which are beyond the means of the individual.

Suggestions to this end are always warmly welcomed by the Committee.

Respectfully submitted,
R. W. Teed, M.D., *Chairman*
A. B. Gwinn, M.D., *Vice Chairman*
H. G. Benjamin, M.D.
F. C. Brace, M.D.
H. F. Bradfield, M.D.
J. W. Bunting, M.D.
F. J. Busch, M.D.
S. E. Chapin, M.D.
G. A. Drake, M.D.
H. D. Dykhuizen, M.D.
E. H. Fenton, M.D.
R. A. Frary, M.D.
W. G. Gamble, Jr., M.D.
L. E. Grate, M.D.
H. C. Hansen, M.D.
L. T. Henderson, M.D.
W. J. Herrington, M.D.
S. L. Hoffman, M.D.
D. P. Hornbogen, M.D.
C. N. Hoyt, M.D.
J. M. Jacobowitz, M.D.
David Kahn, M.D.
E. G. Kiehler, M.D.
R. C. Kingswood, M.D.
J. L. Leach, M.D.
E. C. Long, M.D.
F. E. Ludwig, M.D.
F. E. Luger, M.D.
G. E. Millard, M.D.
R. C. Peckham, M.D.
G. N. Petroff, M.D.
A. C. Pfeifer, M.D.
W. Z. Rundles, Sr., M.D.
Sydney Scher, M.D.
E. W. Schnoor, M.D.
J. M. Sheldon, M.D.
E. L. Spoehr, M.D.
W. F. Strong, M.D.
C. K. Stroup, M.D.
R. L. Thirlby, M.D.
C. L. Weston, M.D.
J. M. Wood, M.D.
B. T. Montgomery, M.D., *Advisor*
E. S. Oldham, M.D., *Advisor*
A. E. Schiller, M.D., *Advisor*
T. P. Wickliffe, M.D., *Advisor*

ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE—1958-1959

The Tuberculosis Control Committee met on December 10, 1958 and again on May 13, 1959.

Recommendations Re Utilization of Excess Tuberculosis Beds.—(1) That both State and County Sanatorium systems be continued and that no individual State Sanatorium be abandoned to another use entirely. (2) That Legislation be supported which would allow usage of excess tuberculosis beds for other purposes and that this legislation should not be restrictive. (3) That funds be appropriated to establish and maintain a security unit in one of the State Sanatoria.

Legislative Activity.—Legislation was passed during the preceding year authorizing the use of excess beds in County Tuberculosis Sanatoria for patients with diseases other than tuberculosis. In addition, legislation has been recently passed approving the utilization of excess beds in State Sanatoria for patients with Mental Health illnesses. (Although, there was no unanimity of opinion among Committee members, it was felt in general, that these beds should not be restricted to Mental Health patients.)

A Special Committee was appointed by The Council to study utilization of excess beds in Tuberculosis Sanatoria. The Chairman was the Chairman of the Tuberculosis Control Committee. This group agreed with conclusions reached by the Tuberculosis Control Committee.

The Chairman and other members of the Committee spent considerable time with various Legislative Study Committees and appeared before Legislative Hearings, as well as Conference Committees of the State Health Department discussing these problems.

House Bills 535 and 536 which scaled State Aid for hospitalized tuberculosis patients dependent upon whether the patient was hospitalized in his own County, another County or a State Sanatorium was opposed. It was the consensus that these Bills worked an economic hardship on Counties without their own Sanatoria, as well as on Counties who must send patients exclusively to State Sanatoria.

The Committee reaffirmed its previous stand in favor of a recalcitrant unit and endorsed the action of the Michigan State Sanatorium Commission to change the location to Howell. They further recommended that funds be made available by the Legislature for prompt implementation of this facility.

Radiation Hazards.—The Committee reaffirmed its previous opinion that the benefits of chest x-rays, when indicated, far outweigh any possible hazards.

Tuberculin Skin Testing.—The Committee recommended extended use of skin testing of children as an effective method of tuberculosis case finding.

Journal, MSMS.—The November, 1959, Issue of JMSMS has been allocated to the Tuberculosis Control Committee and preparation of articles is under way.

Respectfully submitted,
R. L. Rapport, M.D., *Chairman*
R. M. Bates, M.D.
Abraham Becker, M.D.
P. T. Chapman, M.D.
M. B. Conover, M.D.
W. N. Davey, M.D.
J. L. Egle, M.D.
J. L. Isbister, M.D.
A. H. Kempter, M.D.
E. J. Klopp, M.D.
G. H. Phillips, M.D.
R. A. Rasmussen, M.D.
A. F. Stiller, M.D.
C. J. Stringer, M.D.
J. W. Towey, M.D.
Jack Foy Wu, M.D.
S. A. Yannitelli, M.D.
Stewart Yntema, M.D.
G. T. McKean, M.D., *Advisor*

ANNUAL REPORT OF STUDY COMMITTEE ON TERM OF COUNCILOR—1958-1959

The Committee met on June 3, 1959, at which time resolution No. 31 introduced by Dr. Stander last year was discussed.

The following considerations were taken up:

1. The inclusion of reference to Blue Shield in the resolution is either an error or irrelevant.

2. The prime objective of any move to reduce the term of councilors would almost certainly be found in the opportunity it would afford of evaluating a councilor's record in a shorter period of time. An added result presumably would be to give more men Council experience in a given period.

3. The Council is fully governed by the actions of the House of Delegates.

The Committee discussed these fully and concurred in the action of the Reference Committee of The House in disapproving the resolution. There are advantages to be retained in keeping councilors for their present terms. The Committee found no lack of proper contact between The Council and the House of Delegates.

Respectfully submitted,

L. J. Bailey, M.D., *Chairman*
G. S. Bates, M.D.
H. A. Furlong, M.D.
A. C. Stander, M.D.

ANNUAL REPORT OF THE ADVISORY COMMITTEE TO WOMAN'S AUXILIARY—1958-1959

This Committee did not hold any formal meetings this year, as there were no matters which the Chairman felt were of sufficient magnitude to call a meeting of the entire Committee.

Several matters were discussed with the President of the Auxiliary and the Chairman, and advice was offered.

The Committee has been ready and willing to assist the Auxiliary at all times and wishes to express their thanks for the opportunity of serving.

Respectfully submitted,

E. H. Fuller, Jr., M.D., *Chairman*
A. B. Aldrich, M.D.
G. P. Moore, M.D.
J. S. Rozan, M.D.
D. A. Young, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY—1958-1959

Your Committee has had three formal meetings, September 14, 1958, December 7, 1958, and March 22, 1959.

Two of these meetings were with officers and committee chairmen of the MSMAS.

At these meetings activities and problems of the MSMAS were discussed such as:

1. Educational Program as organized by the University of Michigan.
2. Participation of Michigan Medical Assistants in the National Association of Medical Assistants.
3. MSMAS Membership Drive.
4. Use of County Medical Society Advisory Committees to the County Medical Assistants Society.
5. Medical Assistants booth at the annual meeting.
6. Participation and assistance of Medical Assistants in the MSMS activities.

We recognize that the MSMAS is a vital and growing organization, and we are anxious to help and participate in this growth.

During the past year, the MSMAS Education Program from the University of Michigan Extension Department has been given in Lansing, Battle Creek, Jackson, Saginaw and Detroit. Efforts are being made to have the Michigan Educational Program receive national recognition by the American Association of Medical Assistants.

It should be noted that the AMA has been most active in helping the American Association of Medical Assistants establish a national office in Chicago, with an Executive Secretary as of May 1, 1959. Dr. James Appel of Lancaster, Pennsylvania, a trustee of the AMA, is now one of the Advisors for AAMA. Hallie Cummins of Caro is a National Director of AAMA and John W. Rice, M.D., is also a member of the National Advisory Board.

To promote more state-wide acceptance and approval of the MSMAS your Committee has recommended a booth be made available at the annual meeting where members of the MSMAS could act as hosts to the doctors attending the Annual Session.

Your Committee is proud of the Medical Assistants Society and recommends further active participation in the State and National organizations.

Respectfully submitted,

J. W. Rice, M.D., *Chairman*
Ralph W. Shook, M.D., *Vice Chairman*
L. E. Holly, II, M.D.
D. B. Johnson, M.D.
J. E. Manning, M.D.
G. E. Millard, M.D.
A. S. Narotzky, M.D.
T. J. Trapasso, M.D.
J. A. Witter, M.D.

ENDOTRACHEAL ANESTHESIA IN PEDIATRIC PLASTIC SURGERY

(Continued from Page 1275)

care on the ward and in some cases helps reduce postoperative vomiting, since moderate gastric decompression can be accomplished with these tubes.

Summary

Pediatric anesthesia is of necessity a precise endeavor. In the field of plastic and reconstructive surgery, it is essential that both anesthetist and surgeon fully understand the need for cooperative team effort. Only by full appreciation of the needs and restrictions present in this type of work, will satisfactory results be achieved.

References

1. Gross, R. E.: Surgery of Infancy and Childhood. Philadelphia: W. B. Saunders Co., 1953.
2. Leigh, M. D. and Belton, M. K.: Pediatric Anesthesia. 2nd Ed. New York: MacMillan Co., 1951.
3. Sphire, R. D. and Zukowski, H. J.: Mechanical respiration during anesthesia for surgery. J. Michigan M. Soc., 57:67-70 (Jan.) 1958.
4. Slater, H. M. and Stephen, C. R.: Anesthesia for tonsillectomy and adenoidectomy. Canad. M. A. J., 64:22-26 (Jan.) 1951.
5. Slater, H. M. and Stephen, C. R.: Anesthesia for infants and children; nonrebreathing technic. A.M.A. Arch. Surg., 62:251-259 (Feb.) 1951.
6. Smith, R. M.: Prevention of tracheitis in children following endotracheal anesthesia. Anesth. & Analg., 32:102-112, March-April, 1953.
7. Smith, R. M.: Blood replacement in thoracic surgery for children. J.A.M.A., 161:1124-1128 (July 21) 1956.
8. Smith, R. M.: Indications for endotracheal intubation in pediatric anesthesia. Anesth. & Analg., 33: 107-114, March-April, 1954.
9. Stephen, C. R.: Pediatric anesthesia. Postgrad. Med., 9:445-447 (May) 1951.
10. West, J. P.: Cardiac arrest during anesthesia and surgery; analysis of 30 cases. Ann. Surg., 140:623-629 (Oct.) 1954.

Technical Exhibits

(Alphabetic List)

Abbott Laboratories **Exhibit No. 410**
North Chicago, Ill.

Of particular interest to physicians at the Abbott booth will be the presentation of Desoxyn Gradumets —the new long-acting dosage from now being used in obesity cases. Abbott will also display antibiotics, hospital solutions and equipment. Our representatives will be on hand to assist you in every way possible.

A. S. Aloe Company **Exhibit No. 420**
St. Louis, Mo.

The A. S. Aloe Company will be pleased to have you visit booth No. 420. They will have on hand a cross section of their most complete line of Physician and Laboratory supplies and equipment. Many new items will be featured and our representatives look forward to this opportunity of discussing items of mutual interest.

American Ferment Company, Inc. **Exhibit No. 104**
New York, N. Y.

Have you tried TOD'L, the sudsing, emollient, antibacterial skin cleanser for the treatment and prevention of various skin affections? Also featured: CAROID AND BILE SALTS, a logical complement in modern methods of therapy, FALGOS buffered analgesic, ALCAROID ANTACID and SUPLIGOL for non-surgical biliary problems.

Ames Company, Inc. **Exhibit No. P-7**
Elkhart, Ind.

Featured at the Ames Company exhibit will be the latest developments in new, simplified diagnostic products, which are adaptable to routine examination and patient management. The many advantages of the new diagnostic products are quickly demonstrable, and you are cordially invited to stop at the Ames booth to see them.

Armour Pharmaceutical Company **Exhibit No. 502**
Chicago, Ill.

Audio-Digest Foundation **Exhibit No. 316**
Glendale, Calif.

Audio-Digest Foundation—a subsidiary of the California Medical Association—gives the busy physician an effortless tour through the best of current medical literature each week. This medical tape-recorded "newscast"—compiled and reviewed by a professional Board of Editors—may be heard in the physician's automobile, home or office. The Foundation also offers medical lectures by nationally-recognized authorities.

Baker Laboratories, Inc. **Exhibit No. 504**
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.
Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

Barry Laboratories, Inc. **Exhibit No. 102A**
Detroit, Mich.

Learn about the new and modern way to restore allergic balance—IMMUNOREX! The new easy to use Test and Treat Method—Accurate—plus Lasting Immunity. The only time tested and clinically proven treatment in the allergy field. See how each patient's treatment is Individualized. Learn about present day Autogenous testing and treatment for fungi, bacteria and other unusual irritants.

Belle Moss Manufacturing Chemist **Exhibit No. 509**
Detroit, Mich.

DIAPREX OINTMENT, for effective treatment and prevention of Diaper Rash. It is useful for adults as well as for children in Heat Rash, Chafing and other skin irritations.
CARBAX EMOLLIENT, a new bland water soluble antipruritic for all types of eczemas and skin irritations overtreated with antibiotics, tars and other medicaments.

Borcherdt Company **Exhibit No. P-12**
Chicago, Ill.

Two time-tested products are being shown at this meeting. MALT SOUP EXTRACT for constipation and intractable pruritus ani. This dietary product acts on the intestinal flora to produce a predominately aciduric flora.
UROLITIA is a mild soothing urinary antiseptic for geriatric patients. Register for samples and information on these products.

The Borden Company **Exhibit No. 407**
New York, N. Y.

Most important new item at the Borden Pharmaceutical Division's booth is LIQUID BREMIL which adds all the convenience of a liquid to the significant advantages already established by BREMIL Powdered. Borden's full line of formula products is on display including MULL-SOY, the original hypoallergenic formula. Other new additions are DERMABASE and JUNITAR, the nonstaining tar bath, and MARCELLE Hypoallergenic Cosmetics, pure beauty aids for delicate skins.

Bristol-Myers Products Division **Exhibit No. 117**
New York, N. Y.

BUFFERIN, the better-tolerated analgesic for long-term, high-dosage salicylate therapy will be featured by Bristol-Myers. Bufferin's perfectly balanced formula assures maximum absorption without gastric irritation, resulting in good patient cooperation. Relief from arthritic "morning stiffness" is rapid. Bufferin contains no sodium, caffeine, or other sometimes contraindicated ingredients.

Brooks Appliance Company **Exhibit No. 408**
Chicago, Ill.

The Brooks Appliance Company will exhibit and describe in detail the technique of applying the combination pressure bandages. The moist medicated Primer Bandage plus the Dalzoflex Elastic Adhesive Bandage which are used in treating leg ulcers and phlebitis. As distributors of Anatomical supports, our representatives will be in attendance to answer questions and explain in detail our Sacral, Sacral-Lumbar and Dorsal-Lumbar Supports. Also, the Dr. Hackett Approved "C" Sacral Belt, Elastic Stockings, the Nulast Elastic Crepe Bandages, The New Improved FLEXION Cervical Collar and Surgical Instruments will also be displayed.

Burroughs Wellcome & Company **Exhibit No. 202**
Tuckahoe, N. Y.

NEW PRODUCTS:—
The extensive research facilities of "B. W. & Co.," both here and in other countries, are directed to the

development of improved therapuetic agents and techniques.
Through such research "B. W. & Co." has made notable advances related to leukemia, malaria, diabetes, and diseases of the autonomic nervous system; and to antibiotic, muscle-relaxant, antihistaminic, and antinauseant drugs.
An informed staff at our booth will welcome the opportunity to discuss our products and latest developments with you.

Burton, Parsons & Company **Exhibit No. 114**
Washington, D. C.

You are cordially invited to visit the Burton, Parsons and Company booth where information, samples and literature will be available for our EKG Sol, the modern electrode cream for electrocardiography and electro-encephalography, along with our original bulk preparations, Konsyl and L. A. Formula. L. A. Formula contains 50% bulk producing material dispersed in an equal amount of lactose and dextrose. Konsyl, on the other hand, contains 100% bulk producing material and is certainly the product of choice for the obese, the diabetic, and others with restricted caloric diets.

Cambridge Instrument Company, Inc. **Exhibit No. 514**
New York, N. Y.

The Cambridge "Versa-Scribe"— the Versatile Portable Electrocardiograph; the well-known Cambridge "Simpli-Scribe" Model Direct-Writing Portable Electrocardiograph and the Cambridge Standard String Galvanometer Type Electrocardiograph will be displayed at this booth. Also other important Cambride instruments, including the Audio-Visual Heart Sound Recorder, Operating Room Cardioscope, Educational Cardioscope, Multi-Channel Physiological Recorder, Electrokymograph, Plethysmograph, pH Meters, and Pulmonary Function Tester.
The Cambridge Engineers in attendance will be glad to give you complete information on these instruments.

Cameron Surgical Specialty Company **Exhibit No. 106**
Chicago, Ill.

We invite you to visit our display. See the new 255 Electro-Surgical Unit, the most modern instrument of its type. Improved cutting, suberb coagulation, moderately priced. Also showing the Rosi Sigmoidoscopes, Lempert Headlite, Becker Rectal Equipment, Gastroscopes, and many other electrically lighted diagnostic equipment. Stop in and discuss your requirements, or look at the new equipment we offer for your convenience. Our trained representatives will be in attendance at all times. They will be glad to service your present and future requirements.

Carnation Company **Exhibit No. 601**
Los Angeles, Calif.

Carnation Company cordially invites you to visit Booth No. 601, where Medical Specialist representatives will be pleased to welcome old and new friends of the Michigan State Medical Society.
Recent literature and information regarding Carnation Evaporated, Carnation Instant Non-Fat, and our newest product Carnalac are available.
Any question pertaining to our physician-researched material for use in your practice or hospital will be cheerfully discussed.

Central Pharmacal Company **Exhibit No. 519**
Seymour, Ind.

The Central exhibit will feature ELIXIR SYNOPHYLATE for rapid oral control of asthma, and SYNATE for subacute and chronic asthma, pulmonary emphysema and bronchiectasis.

Chicago Pharmacal Company **Exhibit No. 314**
Chicago, Ill.

URISED:—Clinically proven tablet for both comfortable sedation and thorough antisepsis in genitourinary affections.
JUNIPLEX:—Pleasant tasting liquid tonic containing essential minerals, B complex plus 30 micrograms Vitamin B_{12} per teaspoonful.
ESTROSED:—Tablet combining reserpine and ethinyl estradiol for treatment of the menopausal syndrome.
NOSCOLINE:—New antitussive, antipyretic, decongestant cold tablet.

Ciba Pharmaceutical Products, Inc. **Exhibit No. P-3**
Summit, N. J.

Esidrix is hydrochlorothiazide, an improved analog of chlorothiazide. Milligram-for-milligram, it is the most effective oral diuretic-antihypertensive known. Therapeutically, Esidrix is 10 to 15 times more potent than chlorothiazide. Weight losses up to 56 pounds have been reported. In many cases Esidrix caused copious diuresis in patients unresponsive to other oral and/or parenteral diuretics. Side effects are usually mild, infrequent and readily controlled.

Coca-Cola Company **Exhibit Nos. P-16 & P-17**
Atlanta, Ga.

Ice-cold Coca-Cola served through the courtesy and cooperation of the LaSalle Coca-Cola Bottling Company, Grand Rapids, Michigan, and The Coca-Cola Company.

DePuy Manufacturing Company **Exhibit No. 111**
Warsaw, Ind.

DePuy Manufacturing Co., Inc., is featuring representative samples of all types of fracture equipment, especially suited to doctors in general practice. Our new Intermittent Traction apparatus will be shown, together with several other new items recently put on the market. Also included will be the Turner Electro Coagulator. Stop by our Booth No. 111—you will be most welcome!

Desitin Chemical Company **Exhibit No. 102**
Providence, R. I.

DESITIN OINTMENT:—For treatment of burns, ulcers, diaper rash, abrasions, etc.
DESITIN POWDER:—Relieves chafing, sunburn, diaper rash, etc.
DESITIN SUPPOSITORIES and RECTAL OINTMENT:—Relieve pain and itching in uncomplicated hemorrhoids, fissures.
DESITIN BABY LOTION:—Protective, antiseptic.
DESITIN ACNE CREAM:—A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.
DESITIN COSMETIC & NURSERY SOAP:—Supermild.

Detroit X-Ray Sales Company **Exhibit Nos. P-9 — P-10**
Detroit, Mich.

We are pleased to welcome all our friends of the Michigan State Medical Association to visit our booth No. P-9 and P-10—where we will exhibit the entirely redesigned Mattern Line of X-Ray Equipment.
We welcome your inspection, and criticism (if any), of a revolutionary change in appearance of Modern X-Ray Equipment.

Dictaphone Corporation **Exhibit No. 214**
Detroit, Mich.

Our display at this show will consist primarily of three separate systems currently being manufactured and sold by Dictaphone Corporation. The first system consists of our individual Dictaphone Time-Master model P6 recording machine and the model B6 Time-Master transcribing machine for use by the medical secretary.

Another system which we will display is known as the central dictation system which is being currently used by many hospitals and a number of larger doctors' offices where a number of examining rooms are present. The third system will revolve around the Dictaphone Dictet which is our portable voice recorder weighing 2 lbs. 11 oz. and its counterpart, the Dictet typer, which is a transcribing unit.

Along with the three basic systems, we will also have on display many of the accessories which are used currently in the medical profession to augment or expand the usual application of any one of the three systems.

Dietene Company **Exhibit No. 203**
Minneapolis, Minn.

Have YOU tasted MERITENE . . . the *protein*-vitamin-mineral supplement that DOES taste good? Visit our booth, enjoy a MERITENE milk-shake with its multiple nutritive values.

While you're there, review the Dietene Diet based on Dietene Reducing Supplement. It provides the rare combination of low calories (1000) with high intake of protein and all essential vitamins and minerals in an interesting, effective, SAFE weight reducing diet.

Doho Chemical Corporation **Exhibit No. 315**
New York, N. Y.

DOHO CHEMICAL CORPORATION is pleased to exhibit:

AURALGAN—Otitis Media and removal of Cerumen.

OTOSMOSAN—Fungicidal and Bactericidal in the suppurative and aural dermatomycotic ears.

RHINALGAN—Nasal decongestant free from systemic or circulatory effect.

LARYLGAN—Throat spray and gargle for infectious and non-infectious sore throat involvements.

Mallon Chemical Corporation, Division of DOHO:

RECTALGAN—For relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

DERMOPLAST—An Aerosol Spray for surface pain, burns and abrasions; Obs. & Gyn. use.

Eaton Laboratories **Exhibit No. P-21**
Norwich, N. Y.

Furacin® (brand of nitrofurazone) Cream is now available for use postpartum—prevents or controls infection, averts delayed healing of cervix and episiotomy wound; after cervical irradiation — minimizes sloughing, discharge and malodor, speeds healing while preventing adhesions; after cervico-vaginal surgery, cauterization and conization—eliminates infection, reduces discharge and irritation, hastens healing. Furacin Cream may be used as a multipurpose topical antibacterial when a fine cream base is preferred.

Emanem Laboratories, Inc. **Exhibit No. 211**
Chicago, Ill.

Our exhibit is designed to present DUTEX, a unique Retention douche created for greater therapeutic effectiveness in the treatment of common vaginal conditions.

DUTEX is effective through it's use because

1. Vaginal walls are Distended providing complete exposure to therapeutic douche fluid.
2. It supplies a means of Retaining douche solution for greater therapeutic effectiveness.

Encyclopaedia Britannica, Inc. **Exhibit No. 418**
Chicago, Ill.

Encyclopaedia Britannica, Inc., has on display their 1959 Edition which has been acclaimed the standard of the world by eminent authorities. Have special Exhibit Binding at a price only obtainable at this meeting. Representatives on duty at booth: Mr. T. Elliott and Mr. P. Johnson.

Marshall Erdman & Associates, Inc.
Madison, Wis. **Exhibit Nos. 409-411**

Erdman Prefabricated Medical Buildings are the result of years of experience in the field of design, manufacturing and construction. No other company has had such large experience in this field. About 200 doctors are now practicing in Erdman-built Medical Buildings. Experienced Architects, Engineers and Construction Superintendents of the Erdman Company will design, manufacture and build your Medical Building from the land-planning stage until you open the door into your own office.

Contact Marshall Erdman & Associates, Inc., Madison, Wisconsin, before you build.

Ferndale Surgical, Inc., Division **Exhibit No. 320**
J. F. Hartz Company
Ferndale, Mich.

We cordially invite you to visit our booth and discuss with us, Amosene, a safer and fast acting tranquillizer; Fragicaps, a double potency citrus bioflavinoid. A fine assortment of latest surgical instruments and diagnostic equipment. Ask for our new drug catalogue and therapeutic index.

C. A. Fisher & Sons **Exhibit No. 402**
Toledo, Ohio

Your ZIMMER distributor, C. A. Fisher & Sons, extends a cordial invitation to the members of the Michigan State Medical Society and guests to visit their booth where the latest in Fracture Equipment and Appliances will be on exhibit. Of special interest is the new DUAL TYPE Rubber Walking Heel.

C. B. Fleet Company, Inc. **Exhibit No. 208**
Lynchburg, Va.

Fleet will feature CLYSMATHANE, its most recent contribution in the field of medication by rectum—an advanced method of xanthine therapy. CLYSMATHANE is a stable solution of theophylline monoethanolamine; easily retained; rapid and uniform absorption, prompt and predictable blood levels; with no rectal irritation after prolonged use.

E. Fougera & Company, Inc. **Exhibit No. 312**
Hicksville, N. Y.

You are invited to visit the Fougera Exhibit and discuss our products with medical service representatives. For your convenience, all literature and sample supplies will be sent to your office.

Freeman Manufacturing Company **Exhibit No. 512**
Sturgis, Mich.

The Freeman Line on Surgical Supports places particular emphasis on orthopedic braces for use when conservative measures are indicated. Rigid control and almost complete immobilization of the sacral, lumbar and thoracic area is achieved through the use of splint type construction in combination with the block and tackle effect of straps and buckles. Special designs and constructions are available for any purpose.

Geigy Chemical Corporation **Exhibit No. P-22**
Yonkers, N. Y.

GEIGY PHARMACEUTICALS cordially invites Members and Guests of the Association to visit its technical display. Information on products valuable in the therapy of rheumatic, metabolic, dermatologic and cardio-vascular diseases will be presented by personnel in attendance.

Gerber Products Company **Exhibit No. 319**
Fremont, Mich.

Symptoms of gastrointestinal allergy in infants can, in a high percentage of cases, be corrected when cow's milk feedings are replaced with Gerber Meat Base Formula. Normal nutrition is assured. Acceptance and toleration are excellent.

Gray Audograph Company **Exhibit No. P-18**
Detroit, Mich.

A display by Gray Manufacturing Company of the very latest designed office dictation communications systems.

The complete display will incorporate the most versatile system of telephone dictation now manufactured. This exhibit will specifically feature Gray Audograph models which are now in use by the V.A.—Army—Navy and Airforce Hospitals.

Hack Shoe Company **Exhibit No. P-11**
Detroit, Mich.

In our 44th year of service to the profession, we present our tremendously successful RIPPLE® Sole shoes in a full assortment, with opportunity for try-on by interested visitors to our booth.

Leather-soled shoes will also be displayed. These will include supportive shoes for men, women and children; normal types for children and the special orthopaedic types which are fitted on prescription only: Sable Pre-Walker Clubfoot, Tarso-Pronators and Supinators, Hack Pigeon Toe, Clubfoot and surgical shoes.

Health Insurance Council **Exhibit No. 515**
New York, N. Y.

Our exhibit is designed to provide general information on health insurance as underwritten by insurance companies. In addition, it also makes available information on uniform claim forms for use by doctors and hospitals in support of health insurance claims.

H. J. Heinz Company **Exhibit No. 210**
Pittsburgh, Pa.

BALANCED NUTRITION for babies is provided in HEINZ HIGH MEAT DINNERS. Both strained and junior contain more than three times the meat in conventional vegetable—meat combinations and are hypo-allergenic.

HEINZ apple-bases fruit juices conform to AMA council standards for vitamin C content and are hypo-allergenic.

Hoffmann-LaRoche, Inc. **Exhibit No. P-6**
Nutley, N. J.

Madribon is a completely new, low-dosage antibacterial. Clinical investigators report better than 90 per cent therapeutic effectiveness with less than 2 per cent side effects in over 15,000 patients with respiratory, urinary tract and soft tissue infections.

Marplan is a new amine oxidase regulator with marked beneficial effects in the treatment of both angina pectoris and mental depression.

Holland-Rantos Company, Inc. **Exhibit No. 109**
New York, N. Y.

Featured at the H-R exhibit:

. . . Specific antimycotic, non-messy HYVA GENTIAN VIOLET VAGINAL TABLETS.

. . . Also trichomonicidal, fungicidal and bactericidal improved NYLMERATE JELLY and NYLMERATE ANTISEPTIC SOLUTION CONCENTRATE for vaginal trichomoniasis and mixed infections.

. . . HOLLANDEX SILICONE OINTMENT with natural Vitamins A and D—medication for neuro- and contact-dermatitis, decubitus ulcers, diaper rash, skin dryness/chafing, etc.

. . . Special KOROMEX® for use when "jelly-alone" is indicated for conception control; also contouring KORO-FLEX DIAPHRAGMS (facilitate correct placement), along with standard KOROMEX JELLY, CREAM, DIAPHRAGMS and SETS.

G. A. Ingram Company **Exhibit Nos. 302 & 304**
Detroit, Mich.

"Everything that's new"
"Just made for my practice"
"Won't my girl love that!"

These enviable quotes will apply to the display which the G. A. Ingram Company will have at the Michigan State Medical Society Meeting. You can't afford to miss it.

Institute of Public Information **Exhibit No. 310**
New York, N. Y.

CONGENERS: CHEMISTRY-PHARMACOLOGY

Congeners (fusel oil, aldehydes, acids, etc.) are substances found in all alcoholic beverages that provide the taste, bouquet and color. In large amounts, however, congeners may produce toxic effects. This exhibit presents the results of quantitative chemical analyses of congeners found in six leading types of distilled spirits along with correlated acute oral toxicity studies obtained on rats. (Pertinent literature will be available.)

International Business Machines Corporation
Grand Rapids, Mich. **Exhibit No. 207**

The International Business Machines exhibit at the MSMS Annual Session will consist of the following equipment:

The IBM Standard Electric Typewriter
The IBM Executive Electric Typewriter
The IBM 632 Electronic Computing Typewriter used for Billing and Writing of Statements in the Doctors' offices.

Johnson & Johnson **Exhibit No. 417**
New Brunswick, N. J.

Johnson & Johnson will display the latest improvements in surgical dressings, as developed by the Johnson & Johnson Research Laboratories. Several recent outstanding additions to the Baby Products line will be shown. Other products, representative of the Johnson & Johnson line, designed for your office, hospital, or patient use, will be displayed. You will find well-informed representatives pleased to discuss these products or provide information on any other items made available by the world's largest manufacturer of surgical dressings and baby products.

C. B. Kendall Company **Exhibit No. 517**
Indianapolis, Ind.

The C. B. Kendall Company exhibit will emphasize three products of impressive acceptance and demonstrated value in their respective fields—Banesin Forte, Neo-Rhiban and Neo-Codenyl.

1. Banesin Forte which presents the proven value of Banesin now fortified for faster redemption from the vicious triad of pain, spasm and tension.
2. Neo-Rhiban for relief of all the facets of symptoms of cold and "flu," including cough sequellae.
3. Neo-Codenyl—a safe, sugar free cough syrup for more effective, more palatable cough control.

A. Kuhlman & Company **Exhibit No. 501**
Detroit, Mich.

The A. Kuhlman & Company cordially invites you to visit booth 501 where we will have several representatives on hand to discuss with you our complete line of examining room furniture, diagnostic instruments, surgical instruments and physical therapy equipment.

Lederle Laboratories **Exhibit No. 406**
Pearl River, N. Y.

You are cordially invited to visit the Lederle Booth where our medical representatives will be in attendance to provide the latest information and literature available on our line.

Featured will be Achromycin V and Aristocort and many other of our dependable quality products.

Eli Lilly & Company **Exhibit Nos. 204 & 206**
Indianapolis, Ind.

You are cordially invited to visit the Lilly exhibit located in space Nos. 204 and 206. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company **Exhibit No. P-4**
Philadelphia, Pa.

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

Lloyd Brothers, Inc. **Exhibit No. 413**
Cincinnati, Ohio

Welcome to the Lloyd Brothers exhibit. Our professionally trained sales representatives will be happy to greet you and discuss the merits of our products in your practice.

P. Lorillard Company **Exhibit No. P-1**
New York, N. Y.

P. Lorillard Company invites you to visit the Kent Cigarette Exhibit.

We are presenting the Story of Kent Cigarettes with the exclusive, new Micronite filter, which gives you the rich taste of the world's finest leaf tobaccos . . . with tars and nicotine in the smoke you inhale reduced to the lowest level among all leading brands.

A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

Maico Hearing Service **Exhibit No. 308**
Grand Rapids, Mich.

Maico is famous for supplying most of the precision hearing test instruments in America. Maico instruments are used exclusively by the U. S. Armed Forces; most ear physicians, universities, hospitals, schools, and leading U. S. industries rely upon Maico instruments. Maico hearing glasses are decidedly different and can be fitted to most types of hearing losses.

Maltbie Laboratories Division **Exhibit No. 518**
Wallace & Tiernan, Inc.
Belleville, N. J.

Maltbie Laboratories features the new dermatologic ointment, Caldecort, containing calcium undecylenate, hydrocortisone and neomycin for a comprehensive therapy of skin conditions caused by fungi, bacteria or allergy. Also exhibited are: Desenex, most widely prescribed for athlete's foot; Nesacaine, a safe, potent and rapid-acting local anesthetic; Bifran for the management of the overweight patient; and Cholans for the treatment of hepatobiliary dysfunction.

Marion Laboratories, Inc. **Exhibit No. 213**
Kansas City, Mo.

A new iron absorption factor, Sorbit*, combined with a new well tolerated iron salt, ferrous fumarate, are combined in Anasorb and Fumasorb tablets. These two products will effectively treat the majority of secondary anemias seen in practice. Oyster shell calcium, offering your patients more absorbable calcium is available in Os-Vim, Os-feo-Vim, Os-Cal, Os-feo-Cal, and Os-Quin-300.

*—Registered.

S. E. Massengill Company **Exhibit No. 506**
Bristol, Tenn.

Best wishes from Massengill to the Michigan State Medical Society for a most successful meeting. Should you desire, Massengill service representatives will be on hand at the Massengill booth to discuss with you any Massengill product in which you are interested. The S. E. Massengill Company and its service representatives would like to cooperate, in any way possible, to make your meeting a complete success.

McNeil Laboratories, Inc. **Exhibit No. 511**
Philadelphia, Pa.

Members of the Michigan State Medical Society are cordially invited to visit our Booth No. 511, Mr. L. C. Shupert in charge. Products to be featured are: GRIFULVIN, Butisol Sodium and Parafon.

Mead Johnson & Company **Exhibit No. 306**
Evansville, Ind.

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company **Exhibit No. 520**
Tulsa, Okla.

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.

The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Arts Supply Company **Exhibit Nos. 309 & 311**
Grand Rapids, Mich.

The Medical Arts booth will house a most unusual instrument display—featuring those instruments used in the specialties.

Several new diagnostic instruments and treatment modalities will be exhibited.

The display will be handled by trained personnel and we welcome your inquiries.

Please visit our new show room at 311 State Street while in the city. YOU ARE ALWAYS WELCOME.

Medical Protective Company **Exhibit No. 103**
Fort Wayne, Ind.

The Medical Protective Company advocates confidential individual professional liability insurance with expert defense unhampered by unfavorable publicity, impeachable testimony, consortium with the damage seeking fraternity, star chamber proceedings or any other bureaucratic offspring of regimentation. An unparalleled result is our sustained per capita reduction in the incidence of claims.

Merck Sharp & Dohme **Exhibit No. 218**
Philadelphia, Pa.

A new adrenocortical steroid is featured at the Merck Sharp & Dohme booth. "DECADRON" dexamethasone possesses all the basic actions and effects of other glucocorticoids but in different degree. Its anti-inflammatory activity is more potent on a weight basis than any other known glucocorticoid. Electrolyte imbalance is not ordinarily a therapeutic problem.

"HydroDIURIL," a new, orally effective, non-mercurial diuretic-antihypertensive agent is also of interest. This compound is the most potent diuretic agent presently available, equaling or exceeding even the most potent parenteral organomercurials in diuretic activity.

Technically trained personnel will be present to discuss these and other subjects of clinical interest.

Wm. S. Merrell Company **Exhibit No. 201**
Cincinnati, Ohio

For the first time, an effective anorexic agent is *recommended* for cardiac, hypertensive, and diabetic patients. New *Tenuate* is a hunger control agent so free of CNS stimulation it is used for nighttime hunger.

Tenuate and other Merrell drugs will gladly be discussed by Merrellmen.

Merrill Lynch, Pierce, Fenner & Smith, Inc.
Grand Rapids, Mich. **Exhibit No. 209**

The Merrill Lynch exhibit will be a counter design electrically animated entitled "Any Questions on Investing." It will be an informal, informative investment center. Information will be available for the prospective investor in the form of booklets on "How To Invest."
A direct telephone will be maintained for up to the minute quotations.

Meyer and Company **Exhibit No. P-24**
St. Clair Shores, Mich.

Michigan Bell Telephone Co. **Exhibit No. 401**
Detroit, Mich.

Michigan Medical Service **Exhibit No. 305**
Detroit, Mich.

You are cordially invited to visit our booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Middleton's, Inc. **Exhibit No. 113**
Grand Rapids, Mich.

Middleton's will have a display of the finest in surgical products from manufacturers in the medical field. D and G sutures, Vim syringes and needles, Owen dressings and Curon elastic foam bandages.
Also you will see new inexpensive examining room furniture for that second room you have been wanting to equip, and the latest in German Stainless Steel instruments and manometers: New Patterns, New Designs; New Ideas. All will be air mailed to us for the convention.

Milex Products **Exhibit No. P-8**
Oak Park, Mich.

Milex Company is pleased to announce the release of a new post-operative Amino-Acid Gel and a new patients book on the menopause. Also on exhibit will be other unique specialties as: Trimo-San Gel for vaginal fungal infections, "Marital Guide for Patients," Crescent Diaphragm with built-in-inserter and a Cancer Detection Unit including a Cold Conization Knife.

Mooreland Associates **Exhibit No. P-13**
Nutley, N. J.

Mooreland Associates—a market research and management consulting firm, specializing in the medical profession and allied industries, is conducting a survey on various aspects of medical practice and drug therapy. Your co-operation would be greatly appreciated.

C. V. Mosby Company **Exhibit No. P-25**
St. Louis, Mo.

New knowledge, new ideas, new research and technique—all are waiting for you in the newest Mosby books for 1958 and 1959. Come in. Look over these books at your leisure and convenience. If you wish his assistance, our experienced representative will be happy to discuss any book with you.

MSMS Life, Health and Accident Insurance Program **Exhibit No. P-14**
Lansing, Mich.

You are cordially invited to stop at Exhibit No. P-14 and discuss the MSMS Life, Health and Accident Insurance Program.
Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

Mullers Shoes, Inc. **Exhibit No. P-15**
Grand Rapids, Mich.

Our exhibit will show the new Sabel Equino Varus Pre-Walker shoe with Roto-Lok Bar attachments, plus many other of Sabel's basic shoes. We will also ha on display our new line of 100% Straight La Thomas Heel shoes.
For your interest, Doctor, we have compiled a co plete catalog of all types of basic corrective footwea Please ask us for one.

Wm. R. Niedelson Company **Exhibit No. P-2**
Detroit, Mich.

The newest in office X-ray equipment by PROFI XRAY will be on exhibit.
The only BMR unit that also performs Pulmonar Function and Timed Vital Capacity studies—th Jones "AIR BASAL" will be demonstrated.

Noble-Blackmer, Inc. **Exhibit Nos. 118 & 11**
Jackson, Mich.

The new Birtcher No. 300 Electrocardiograph, as we as the Liebel-Flarsheim Basalmeter, Office Bovie an Diathermy units, plus the latest Ritter table, the ne Wilmot Castle diagnostic lamp and many other piece of equipment will be exhibited in our booth this yea Stop in and visit the friendly representatives fro Jackson.

Nordson Pharmaceutical Laboratories, Inc.
Irvington, N. J. **Exhibit No. 11**

ERGOMAR, a new form of specially processed ergo tamine tartrate specifically for sublingual administra tion in the treatment of recurrent and throbbing typ vascular and migraine headache. By passing the gas tric and hepatic enzymatic barriers, ERGOMAR in sures more rapid relief and avoids gastric upset. Als featured—LEVONOR, the non-stimulating appetit suppressant, LEVONOR's smooth action permits it use even during the late evening hours without dis turbing sleep. Latest reprints are available on FER RONORD LIQUID and tablets, a chelate hematini providing rapid hemoglobin response without side ef fects.

Hermien Nusbaum & Associates **Exhibit No. 507**
Chicago, Ill.

Infant and Geriatric Feeding equipment for home, Hospital and Institutional use. Newest EVENFLO nipples, boilable plastic bottles, etc.
MODELLA Infant and Pediatric liners and panties to prevent and overcome diaper rash; drip-proof training panties. Completely harmless, flexible polyvinylchloride clinic droppers re-usable or disposable.
TUCKS-ready-to-use witch hazel dressings.

Ortho Pharmaceutical Corporation **Exhibit No. 216**
Raritan, N. J.

ORTHO cordially welcomes you to visit Booth No. 216. Featured will be the well-known products for conception control as well as SULTRIN Triple Sulfa Vaginal Tablets, possessing all the advantages of TRIPLE SULFA CREAM in convenient tablet form. This is a new addition to the ORTHO Therapeutic line.

Parke, Davis & Company **Exhibit No. 101**
Detroit, Mich.

Medical service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pet Milk Company **Exhibit No. P-23**
St. Louis, Mo.

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Pfizer Laboratories **Exhibit No. 301**
Brooklyn, N. Y.

The Pfizer Laboratories' display has been specifically arranged for your convenience and to give you the maximum in quick service and product information. To make your visit worthwhile, technically trained Medical Service Representatives will be on hand to inform you of the latest developments in Pfizer Research.

Procter & Gamble Company **Exhibit No. 313**
Cincinnati, Ohio



Ivory Soap (Procter & Gamble) offers a series of time-saving leaflet pads for doctors, each pad containing fifty identical tear-out sheets. These sheets, which may be given to patients contain routine instructions covering six different topics. There are also samples of other free, helpful material prepared especially for physicians.

Mrs. Christyne Schwab in charge.

Professional Management **Exhibit No. 403**
Battle Creek, Mich.



Professional Management
A Complete Business Service for the Medical Profession.

The trade mark PM is the brand of distinction which identifies Professional Management offices affiliated with Black & Skaggs Associates, Inc., of Battle Creek, Michigan. It assures PM clients that the knowledge, experience and integrity of the oldest and largest such firm in the country are at their command.

Those in attendance at the MSMS Convention are cordially invited to stop at Booth No. 403 and meet the experienced PM Executives there.

Purdue Frederick Company **Exhibit No. 419**
New York, N. Y.

The Purdue Frederick Company will be pleased to present several new, leading therapeutics for 1959—Arthropan — a new anti-arthritic, anti-inflammatory analgesic; Soropon Pediatric Solution—a new concept for the treatment of cradle cap; Actasal Pediatric Drops—a specific anti-pyretic for children.

Literature and samples of Cerumenex, Senokot, prenens and Somatovite will also be available.

Randolph Surgical Supply Company **Exhibit No. 219**
Detroit, Mich.

Randolph Surgical will have many new items on display, and our usual competent personnel to assist our many friends in the Medical profession.

R. J. Reynolds Tobacco Company **Exhibit No. P-19**
Winston-Salem, N. C.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogramed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company, Inc. **Exhibit No. 318**
Richmond, Va.

Dimetane Expectorant and Dimetane Expectorant-DC (with dihydrocodeinone) are featured by Robins as the fall "cough season" gets under way. The basic formula includes an antihistaminic (Dimetane), superior expectorant (glyceryl guaiacolate) and two nasal decongestants. The exhibit also features the Phenaphen "family" of analgesics; the Pabalate group of antirheumatics; Ambar, for appetite control and mood amelioration; and Allbee with C, therapeutic B complex with vitamin C.

J. B. Roerig & Company **Exhibit No. 110**
New York, N. Y.

J. B. Roerig and Company will welcome members of the medical profession at the company's exhibit of leading specialties and new products. Representatives will be in attendance to answer any questions you may have. Roerig recently introduced a number of new products which representatives at the exhibit will describe and give information on the results of clinical reports.

Wm. H. Rorer, Inc. **Exhibit No. 508**
Philadelphia, Pa.

MAALOX, the non-constipating, pleasant tasting antacid, and the new double strength TABLET MAALOX NO. 2, are featured. Other product highlights are ASCRIPTIN, a rapid-acting professional salicylate FERMALOX, a new buffered iron tablet, FERMATIN, a dynamic tonic in a capsule for under-par patients, and PAREPECTOLIN, a stable, pleasant tasting antidiarrheal preparation for patients of all ages. Representatives will be on hand to answer questions about these and other Rorer products.

Ross Laboratories **Exhibit No. 105**
Columbus, Ohio

ROSS LABORATORIES: As adjunct to the physician's oral reassurance of anxious new parents the ROSS DEVELOPMENTAL AIDS offers visual materials (INDIVIDUAL CASE RECORDS, BEHAVIORAL DEVELOPMENT FOLDERS, EMOTIONAL DEVELOPMENT BOOKLETS). Current concepts stress the development of the infant as a whole being. Physiologic infant feeding may be discussed with your SIMILAC Representative.

Rupp & Bowman Company **Exhibit No. 416**
Highland Park, Mich.

To all of our friends in the medical profession, we welcome you once again to stop in and see what we have to show you that is new in your field.

Sanborn Company **Exhibit No. 516**
Cambridge, Mass.

New ELECTROCARDIOGRAPHS of advanced design and function, as well as latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 516. Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.

Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

W. B. Saunders Company **Exhibit No. P-2**
Philadelphia, Pa.

Harold Rozema will again be on hand with the complete Saunders line. Among the better selling titles published within the last year are: Roberts: Difficult Diagnosis, DePalma: Fractures, Moyer: Hypertension, Cecil & Loeb: Medicine and Nelson: Pediatrics to name a few.

SchenLabs Pharmaceuticals, Inc. **Exhibit No. 108**
New York, N. Y.

SchenLabs cordially invites you to discuss with our representatives the important discovery NEUTRAPEN—the only specific for penicillin reactions which eliminates successfully more than 93% of allergic reactions to penicillin. Also featured will be other unique products of SchenLabs research and development.

Schering Corporation **Exhibit No. 107**
Bloomfield, N. J.

Schering welcomes the doctors of the Michigan State Medical Society. We cordially invite you to visit the Schering booth where representatives will be on hand to discuss with you the most recent advances in tranquilizer, antihistaminic and corticosteroid therapy. Products such as Schering's TRILAFON, POLARAMINE and DERONIL will be featured.

Julius Schmid, Inc. **Exhibit No. 412**
New York, N. Y.

An interesting and informative exhibit featuring IMMOLIN Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (Fourex) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

G. D. Searle & Company **Exhibit No. P-20**
Chicago, Ill.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.
Featured will be Dartal, the new tranquilizing agent which controls activities associated with anxiety states and other neuroses; Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, non-mercurial oral diuretic.
Also featured, will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine and Pro-Banthine with Dartal, the standards in anti-cholinergic therapy; and Dramamine and Dram-amine-D, for the prevention and treatment of motion sickness and other nauseas.

Smith, Kline & French Laboratories **Exhibit No. P-5**
Philadelphia, Pa.

S.K.F. features (1) "Hispril" Spansule® capsules (NEW), a potent, low-dose antihistamine with a remarkably low incidence of drowsiness—approximately 4%—for allergic patients who must remain active and alert; (2) Stelazine® Tablets (NEW), b.i.d. administration for control of anxiety—particularly when expressed as apathy, listlessness and emotional fatigue; and (3) Feosol® Spansule® capsules (NEW), iron in its most effective form with a single capsule daily—usually with a total absence of iron's side effects.

Smith, Miller and Patch, Inc. **Exhibit No. 510**
Stoneham, Mass.

Smith, Miller & Patch, Inc., at Booth No. 510 is proud to feature: Alzinox, Lipotriad, Panogen and Bistrimate.
Our Medical Representatives cordially invite your queries regarding our Pharmaceutical Specialties.

E. R. Squibb & Sons **Exhibit No. 116**
New York, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical profession in new products or improvements in products already marketed.
At booth No. 116 we are pleased to present up-to-date information on these advances for your consideration.

The Stuart Company **Exhibit No. 619**
Pasadena, Calif.

The Stuart representatives extend a cordial invitation to doctors attending this meeting to discuss with them the latest developments of The Stuart Company. Especially featured will be EFFERGEL and EFFERSY the first effervescent bulk laxatives.

Swift & Company **Exhibit No. 2**
Chicago, Ill.

Swift's Baby Foods, the most complete variety meats and egg yolk products—plus High Meat Dinne —for your infant patients, are being featured the Swift exhibit. We invite you to discuss with o representatives the Swift sponsored clinical studi investigating the role of meat in the infant's diet. R prints of these studies, including the results of r search on meat and its effect on infant iron metab ism, are available. Also obtainable is our Moth Booklet, "A Better Start in Life" attractively illu trated in color.

Tailby-Nason Company, Inc. **Exhibit No. 5**
New York, N. Y.

BETADINE ANTISEPTIC—A new non-staining, fil forming, topically applied germicide containing Po done-Iodine N.N.D. Betadine Antiseptic kills on co tact bacteria (including tubercle bacillus), virus fungi, protozoa and yeasts. Non-irritating to skin mucosa. Its action is prolonged, dependable and u impaired by blood, pus or serum.
Betadine Antiseptic is available as a solution or Aer sol Spray.
BETADINE VAGINAL DOUCHE AND BETADI VAGINAL GEL—Kill trichomonas and monilia contact, destroy common pathogens, yet are virtua non-irritating to vaginal mucosa. Wetting action sists penetration into vaginal crypts and crevices.
SUPERTAH OINTMENTS—The original white c tar available in three forms: plain . . . with Sul and Salicylic Acid . . . with Hydrocortisone. Superi Ointments are cosmetically elegant, stainless and th apeutically effective for such dermatological con tions as: psoriasis, dermatophytosis, pruritus and fantile eczema.

Testagar & Company **Exhibit No. 4**
Detroit, Mich.

Stop by and see Q Caps-Amodex; the newest conc in Time Release Capsules. It's clever! It's Unique! Caps-Amodex for high level anorexigenic activity wi out excitation. Q Caps-Amodex insures accurate ti release.

S. J. Tutag & Company **Exhibit No.**
Detroit, Mich.

S. J. Tutag & Company will present "GERITA Recent publications have attested to the advant and efficacy of the 20 to 1 ratio of androgen estrogen in the treatment of the ever present "agi problem.
Also exhibited will be "QUADAMINE" Granucaps sustained release capsule for use in obesity contain appetite depressant, sedation and full vitamin-min supplementation.

U. S. Vitamin Corporation **Exhibit No.**
New York, N. Y.

NOW AVAILABLE and on display—D B I—the "full-range" oral hypoglycemic agent. D B I, br of Phenformin (N^1-B-phenethylbiguanide HCl) is tinctly different in chemical structure and physiol action from the oral hypoglycemic sulfonylureas effectively lowers blood sugar and eliminates gl suria in mild, moderate and severe diabetes. D B in combination with insulin, improves regulatior "brittle" adult and juvenile diabetes. In juve diabetes, D B I often permits up to 50% reduc in insulin requirement. It is also effective in the sulin-resistant, and in primary and secondary tolb mide and chlorpropamide failures. Full details a able on dosage, indications, possible side effects, sa precautions and contraindications.

he Upjohn Company **Exhibit No. 212**
alamazoo, Mich.

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

allace Laboratories **Exhibit No. 112**
ew Brunswick, N. J.

The representatives of Wallace Laboratories will be glad to discuss SOMA at booth No. 112. SOMA is a new non-hormonal agent for the relief of chronic and traumatic pain and stiffness in muscles and joints, and is also useful in some neurological conditions. Side effects are limited to some sleepiness.

arner-Chilcott Laboratories **Exhibit No. 215**
orris Plains, N. J.

Biomydrin Nasal Spray for effective mucolytic-penetrating antibacterial activity, prolonged nasal decongestion and antiallergic effect. *Peritrate*—Painful seizures often create fear in the patient with angina pectoris. Attacks can be controlled and fear arrested by prophylactic management with Peritrate, the long-acting coronary vasodilator. Prescribed on a regular daily dosage schedule, Peritrate increases coronary circulation and lessens the frequency and severity of attacks. In addition, nitroglycerin dependence is often dramatically reduced and exercise tolerance increased. *Pacatal*—Clinically proven as a profound ataractic agent, Pacatal continues to demonstrate its value in the treatment of mental and emotional disturbances. Pacatal is unique in its "normalizing" action, helping the patient to think normally and react in a more stable emotional pattern.

estwood Pharmaceuticals **Exhibit No. 317**
ffalo, N. Y.

Westwood invites physicians to stop by their booth to discuss their unique dermatological products:

Fostex Cream
Fostex Cake
Sebulex
Lowila Cake
Lowila Emollient

These products are particularly suitable for personal use by physicians and their families, who may be plagued with dandruff, acne, dry itchy skin and sensitivities to soap. Register, so that we may send prescription units to your home.

hite Laboratories **Exhibit No. 307**
nilworth, N. J.

nthrop Laboratories, Inc. **Exhibit No. 505**
w York, N. Y.

Trancopal, a new major chemical contribution to therapeutics, a nonhypnotic, muscle relaxant and tranquilizer which combines high clinical effectiveness with low toxicity.

kes Office Supply Company **Exhibit No. 415**
and Rapids, Mich.

De Jur-Grundig Stenorette, combination dictating-transcribing machine. Uses magnetic tape, the most faithful recording medium known. Tape can be used over and over again indefinitely. Permits error free dictation. One button on microphone lets you dictate, stop, erase a word, correct a sentence—you don't even have to touch the machine. Stenorette is only $179.50.

ADOPTION OF CHILDREN

(Continued from Page 1253)

under this statute. Violation is made a misdemeanor the first two times, a felony the third.

In Michigan, the Supreme Court has said that the welfare of the child is paramount to the rights of the parents when (but only when) the two are clearly shown to be in conflict. This doctrine is known as "parens patriae," the right of the state to step into the shoes of the parents where the child's welfare so requires.

Having in mind, then, that the child's welfare is the primary concern of the law, as well as of the other members of the team participating in any adoption, it may be recommended that the legal policy as expressed both by the statute and by the Supreme Court can only be effectuated by such co-operation as will obtain the participation of a licensed placement agency in all adoptions.

References

1. Adoptions and Change of Name of Minors. State of Michigan, The Probate Code Chap. X. State Department of Social Welfare, Lansing 13, Michigan.
2. Essentials of Adoption Law and Procedure. Children's Bureau, Federal Security Agency. Social Security Administration. U. S. Gov't. Printing Office, Washington 25, D. C. Price 15 cents.
3. How to Adopt a Child in Michigan. Michigan Welfare League, 482 Hollister Bldg., Lansing, Michigan.
4. Karelitz, Samuel: Adoptions: A Panel Discussion, 1956. J. Pediatrics, 20:366-386 (Aug.) 1957.
5. Professions Exchange Ideas about Adoptions. Report of a Rocky Mountain Regional Conference, 1956. Colorado State Department of Public Health and Colorado State Department of Public Welfare, Denver 2, Colorado.
6. Schapiro, Michael: A Study of Adoption Practice. Vol. I Adoption Agencies and the Children They Serve. Vol. II Selected Scientific Papers Presented at the National Conference on Adoption 1955. Child Welfare League of America, Inc., 345 E. 46th Street, New York 17, New York.

The average person in the United States forked over $530.80 in taxes to the Federal, state and local governments last year, the Commerce Department reports.

The total tax bite for the fiscal year ending June 30, 1957, amounted to $98,900,000,000.

Federal taxes made up 70 per cent of the total, state levies, 15 per cent and local taxes, another 15 per cent. Federal revenue was up 7 per cent over the previous twelve months, state tax income up 8.6 per cent, and local revenues 11.7 per cent.

American Medical Association House of Delegates

Report on Actions at 108th Annual Meeting

The report of the AMA Commission on Medical Care Plans, relations between medicine and osteopathy, the report of the Committee on Preparation for General Practice and the issue of compulsory Social Security coverage for self-employed physicians were among the major subjects which brought important policy actions by the House of Delegates at the American Medical Association's 108th Annual meeting held June 8-12 in Atlantic City.

Another highlight of the meeting was the appearance of President Dwight D. Eisenhower, who addressed an over-flow audience of more than 5,000 at the Tuesday night inauguration of Dr. Louis M. Orr of Orlando, Florida, as the 113th president of the AMA. It marked the first time that a President of the United States has addressed an AMA annual or clinical meeting.

Dr. E. Vincent Askey of Los Angeles, speaker of the House of Delegates since 1955, was named president-elect for the coming year. Dr. Askey will succeed Dr. Orr as president at the association's annual meeting in June, 1960, in Miami Beach.

The 1959 Distinguished Service Award of the American Medical Association was voted to Dr. Michael E. De Bakey of Houston, Texas, chairman of the department of surgery at Baylor University College of Medicine, for his outstanding contributions in the field of cardiovascular surgery. Dr. De Bakey received the award at the Tuesday night inaugural ceremony.

Total registration through Thursday, with half a day of the meeting still remaining, had reached 28,225, incuding 12,921 physicians.

Eisenhower Address

President Eisenhower, speaking at the inaugural ceremony in the ballroom of Convention Hall, warned that inflation posed the greatest danger to the traditional, free enterprise practice of medicine. The cost of inflation, he said, "is not paid in dollars alone but in increasingly stagnated progress, lost opportunities, and eventually, if unchecked, in lost freedoms for the doctor and the patient." Mr. Eisenhower also expressed gratification at learning of AMA leadership in the program to meet the health care needs of the aged.

The newspapers throughout the nation, in reporting the Eisenhower address to the medical profession in the Annual Session, did not say outright, but gave the impression that President Eisenhower asked the doctors to reduce their rates and charge so that the people could better be able to receive medical attention. Many of us heard that address, including the editor who is making this report. He also has a copy of the address and has read it several times. Here is what the President said and all he said:

"The medical profession, as much as any other, has a vital interest in preventing inflation. Certainly it wants to provide its services for a fee within range of what people can reasonably pay.

"If the time ever comes when large numbers of our citizens turn primarily to the government for assistance in what ought to remain a private arrangement between doctor and patient then we shall all have suffered a great loss.

"The cost of inflation is not paid in dollars alone, but in increasingly stagnated progress, lost opportunities, and eventually, if unchecked, in lost freedoms for the doctor and patient.

"For those who will take the trouble to look there is no difficulty in seeing the relationship between fiscal responsibility and a successful, meaningful life for all in a climate of freedom, I am confident that you doctors, as community leaders in great urban centers and in the villages and farm areas of America, can do much to promote greater understanding of the importance of this vital relationship.

"So I believe that, as you show us how better to preserve our own health, you can do a great service to yourselves, and to all of us, as you teach that the future of our Republic and the free world depends upon our ability to maintain fiscal soundness in government, a robust economy, and a stable dollar."

Commission on Medical Care Plans

The House of Delegates received Part I of the report of the Commission on Medical Care Plans as information only and then acted upon the Commission recommendations item by item. The House adopted 36 of the recommendations without change, but reworded three which relate to miscellaneous and unclassified plans. The changed recommendations now read as follows:

B-4. "In an effort to decrease, or at least to prevent an increase, in the over-all cost of health care, study should be given to the removal of the requirement of hospital admission as the only condition under which payment of certain benefits will be made."

B-6. "Medical care plans should be encouraged to increase their efforts to provide health education and information concerning the coverage of their subscribers."

B-16. "The American Medical Association believes that free choice of physician is the right of every individual and one which he should be free to exercise as he chooses. Each individual should be accorded the privilege to select and change his physician at will or to select his preferred system of medical care and the American Medical Association vigorously supports the right of the individual to choose between these alternatives."

In connection with free choice of physician, the House also requested the Board of Trustees to transmit to all constituent medical associations the "far-reaching significance" of Recommendation A-7, which says:

"Free choice of physician is an important factor in the provision of good medical care. In order that the principle of 'free choice of physician" be maintained and be fully implemented, the medical profession should discharge more vigorously its self-imposed responsibility for assuring the competency of physicians' services and their provision at a cost which people can afford."

The House also strongly endorsed Recommendation B-11, which declares:

"Those who receive medical care benefits as a result of collective bargaining should have the widest possible choice from among medical care plans for the provision of such care."

Many of the Commission recommendations urged increased activity by state and county medical societies and the American Medical Association in such fields as continuing study and liaison, closer attention to legal and legislative factors, and the development of guides for the relationship between the medical profession and the various types of third parties. To carry out three of the recommendations involving AMA activities, the House also approved a seven-point program which it requested the Board of Trustees to transmit to the Division of Socio-Economic Activities for immediate attention.

Medicine and Osteopathy

In considering a special report of the Judicial Council on the subject of osteopathy, the House adopted the following policy statement regarding inter-professional relations:

"(A) All voluntary professional associations between doctors of medicine and those who practice a system of healing not based on scientific principles are unethical.

"(B) Enactment of medical practice acts requiring all who practice as physicians and surgeons to meet the same qualifications, take the same examinations and graduate from schools approved by the same agency should be encouraged by the constituent associations.

"(C) It shall not be considered contrary to the Principles of Medical Ethics for doctors of medicine to teach students in an osteopathic college which is in the process of being converted into an approved medical school under the supervision of the A.M.A. Council on Medical Education and Hospitals.

"(D) A liaison committee be appointed by the Board of Trustees of the American Medical Association to meet with representatives of the American Osteopathic Association, if mutually agreeable, to consider problems of common concern including inter-professional relationships on a national level."

In another action concerning osteopathy, the House recommended that the American Medical Association representatives on the Joint Commission Accreditation of Hospitals suggest to the Joint Commission that they inspect upon request and consider for accreditation without prejudice those hospitals required by law to admit osteopathic physicians to their staff.

Preparation for General Practice

The House approved and commended the final report of the Committee on Preparation for General Practice, which proposes a new two-year internship program for medical school graduates planning to become family physicians. To avoid unnecessary confusion, the House deleted only one sentence which read: "Indeed, the committee believes that the one year internship actually encourages inadequate preparation for general practice." The Committee on Preparation for General Practice included representatives from the AMA Council on Medical Education and Hospitals, the American Academy of General Practice and the Association of American Medical Colleges.

The suggested program would include a basic minimum of 18 months hospital training in the diagnostic, therapeutic, psychiatric, preventive and rehabilitative aspects of medicine and pediatrics in a very broad sense, including care of the newborn. A physician then could elect to spend the remaining six months for additional training in other segments of the program. The committee stated, however, that participants who plan to practice obstetrics would be expected to spend at least four months of the elective period in obstetrical training.

The report declared that "the graduate program of two years in preparation for family practice should be planned and implemented as a unified whole" with a maximum continuity of assignment in specific services. The program also calls for adequate experience in outpatient care and emergency room service.

Social Security

In considering five resolutions on the subject of compulsory Social Security coverage for self-employed physicians, the House disapproved of four and adopted one reaffirming its opposition to the compulsory inclusion of physicians. In so doing, the delegates expressed concern over the possible effects that a change of policy might have on the Association's entire legislative program, particularly with respect to the Forand Bill.

The House also recognized "the apparent growing demand by physicians for economic security" and requested the Board of Trustees to investigate the possibilities of developing group insurance and retirement plans which could be made available to Association members. It accepted a reference committee suggestion "that the American Medical Association continue and expand its educational program to inform its members of the economic, social and moral advantages of economic security obtained within the framework of our free enterprise system rather than through the mechanisms of governmental Social Security."

Miscellaneous Actions

In dealing with a wide variety of other subjects, the House also:

Urged all physicians to participate more fully in community activities and *socio-economic matters* in their own communities but agreed that no change should be made at this time in Article II of the Constitution, which states Association objectives;

Approved in principle the aims and objectives of the President's Council on *Youth Fitness* and the Citizens Advisory Committee on the Fitness of American Youth;

Accepted a Board of Trustees recommendation that the *1962 Annual Meeting* be held in Chicago;

Expressed heartfelt thanks to the Committee on *Amphetamines* and Athletes, which has completed its assignment;

Requested the Board of Trustees to study the problems and possibilities of establishing an A.M.A —sponsored *medical scholarship* and/or loan program;

Approved the inclusion of Today's Health as a benefit of dues-paying membership and urged members to make it available to their patients;

Recommended that state medical societies, where advisable, initiate legislative efforts to eliminate *cancer quackery;*

Received a progress report indicating "phenomenal progress" in the field of health insurance coverage for *the aged* since the Minneapolis meeting last December;

Gave a rising vote of thanks to *Dr. Joseph D. McCarthy,* who finished his term as chairman of the Council on Medical Service;

Reaffirmed its full support of the Educational Council for *Foreign Medical Graduates;*

Endorsed the purposes outlined in the initial report of the *Medical Disciplinary Committee;*

Urged every A.M.A. member to give a substantial gift to the *medical schools* through the American Medical Education Foundation; and

Expressed appreciation for the outstanding *disaster medicine* program presented by the United States Army Medical Service on June 6, 1959, in Atlantic City.

Opening Session

At the Monday opening session Dr. Gunnar Gundersen of La Crosse, Wisconsin, retiring AMA president, stressed the personal responsibility of every physician to keep abreast of medical advancements and to deliver "1959 medicine." Dr. Orr, then president-elect, called for concerted effort and medical leadership in four areas—the costs of medical care, recruitment of dedicated medical students, basic research and health care of the aged. Dr. Carl V. Moore, Busch professor of medicine at Washington University, St. Louis was presented with the eighth Goldberger Award in clinical nutrition. Smith, Kline and French Laboratories of Philadelphia received a special AMA award for its sponsorship of color medical television over the past ten years.

Inaugural Ceremony

Dr. Orr, in his Tuesday night inaugural address, affirmed his belief in the basic principles of medicine, democracy and faith under which America's physicians live. He pointed out that freedom must continually be fought for by men and women who are willing to stand up and be counted. Dr. Leonard Larson of Bismarck, N. D., AMA Board Chairman, administered the oath of office to Dr. Orr, and the latter presented the Distinguished Service Award to Dr. De Bakey. The Fort Dix Band Chorus presented the musical program.

Election of Officers

In addition to Dr. Aaskey, the new president-elect, the following officers were selected at the Thursday session: Vice president, Dr. James Stanley Kenney, New York City; speaker of the House of Delegates, Dr. Norman A. Welch, Boston, and vice speaker, Dr. Milford O. Rouse, Dallas, Texas.

Dr. R. B. Robins, Camden, Arkansas, and Dr. Hugh H. Hussey, Jr., Washington, D. C., were re-elected for five-year terms on the Board of trustees. Also elected to the Board, for the first time, was Dr. Percy E. Hopkins, Chicago.

Dr. J. M. Hutcheson, Richmond, Virginia, was re-elected to the Judicial Council, Re-elected to the Council on Medical Education and Hospitals were Dr. Charles T. Stone, Sr., Galveston, Texas, and Dr. W. Andrew Bunten, Cheyenne, Wyoming.

Dr. Willard Wright, Williston, N. D., was elected, and Dr. J. Lafe Ludwig, Los Angeles, was re-elected to the Council on Medical Service. Dr. William A. Hyland, Grand Rapids, Michigan, was re-elected to the Council on Constitution and By-laws.

Our thanks for much of this report are due F. J. L. Blasingame, M.D., Executive Vice President of the American Medical Association.

Michigan Woman to Head AMA Auxiliary



Mrs. William G. Mackersie

Mrs. William G. Mackersie, Detroit, was chosen president-elect of the Woman's Auxiliary to the American Medical Association at its 36th annual convention in Atlantic City in June.

Long active in Auxiliary affairs, Mrs. Mackersie was president of the Woman's Auxiliary to the Wayne County Medical Society in 1942-43, and president of the Woman's Auxiliary to MSMS

(Continued on Page 1364)

New wide-use dosage form

of the outstanding
anticholinergic-antispasmodic

PRO-BANTHĪNE®
TABLETS
(HALF STRENGTH)

Pro-Banthīne (Half Strength) has been especially designed for your prescribing convenience.

This new form provides flexibility of dosage from low levels of one tablet t.i.d. for patients with minimal distress, to one or two tablets every 2 or 3 hours for those with more pronounced symptoms.

Primary indications are gastrointestinal spasm, bladder spasm, maintenance therapy of peptic ulcer and "irritable bowel" syndrome. The lower dosage also has a field of usefulness in smooth muscle spasm of children and geriatric patients.

when your prescription reads—
℞ Pro-Banthīne Tablets (Half Strength)
—the pharmacist will dispense this new size (7½ mg.)

PRO-BANTHĪNE *(brand of propantheline bromide)*

Dosage forms:	Pro-Banthīne tablets (15 mg.)
	Pro-Banthīne tablets (Half Strength) (7½ mg.)
	Pro-Banthīne ampuls (30 mg.)

G. D. Searle & Co., Chicago 80, Ill. *Research in the Service of Medicine.*

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

ADVANCES MADE IN HOSPITAL CARE AND FACILITIES

Michigan physicians and hospitals can take pride in the advances made in hospital care and facilities since 1939. Statistics attest to the advances made during that time. In 1939, less than 58 per cent of Michigan births occurred in hospitals, the infant mortality rate was 41.8 for every thousand live births, and the number of maternal deaths was 280, for a rate of 30 for every 10,000 live births. In 1958, over 99 per cent of the state's births occurred in hospitals, the infant mortality rate was down to 24.5 and the number of maternal deaths had decreased to sixty, for a rate of 2.9, a drop of 90 per cent.

In addition to the hospital staffs, much credit for this improvement must be given to Hill-Burton Act Funds, to the great strides made by hospital associations and to the activities of such groups as the Joint Commission for Accreditation of Hospitals and the Commission on Professional and Hospital Activities.

Beginning in 1919, the State Health Commissioner was given responsibility for approving hospitals that provided care to patients that received old age assistance, aid to dependent children, aid to the blind or aid to permanently and totally disabled, and for the certification of these hospitals to the State Department of Social Welfare.

When, by Act 231, P.A. 1951, the State Health Commissioner was given the legal responsibility for licensing all hospitals with maternity departments, he sought the help of physicians, hospital administrators and other specialists in the preparation of regulations. The Maternal Health Committee of the Michigan State Medical Society was particularly helpful in suggestion and reviewing requirements for maternity departments. The Commissioner's Hospital Committee has been of special help throughout the years. Its nine members, appointed in staggered terms, include physicians, nurses and administrators of large and small hospitals.

When maternity hospitals were first licensed by the Health Department, there were over 270 such institutions including thirty-one maternity homes and fourteen maternity office services with a total of 3,948 maternity beds. Now there are 238 hospitals with 4,162 maternity beds. The thirty-one maternity homes have practically ceased operation because of failure to meet standards of safe care and eleven of the fourteen maternity office services have closed. Since 1951, forty-eight new hospitals have been opened and nine new facilities have been built to replace older structures. This has been in addition to extensive remodeling and expansion of existing facilities. Consultant physicians, nurses, nutritionists and engineers from the Michigan Department of Health have all contributed to this hospital building program.

The basic philosophy under which the Michigan Department of Health has administered the Hospital Consultation and Licensing Program has been that hospitals should be given reasonable periods of time to comply with the rules and that there would be a gradual increase in the number of rules requiring "immediate compliance," with the Health Department providing advice and consultation upon how to meet the requirements efficiently as well as economically and practically.

The "Rules and Minimum Standards for Hospitals" include 180 individual regulations. With the advice and guidance of the Commissioner's Hospital Committee, the number of "immediate compliance rules" has been stepped up from year to year. In 1951, in order to qualify for a full license, hospitals had to comply immediately with four so-called critical rules—individual equipment for mothers, for babies, running water in the nursery, and provision for sterile infant formulas. By 1958, the so-called critical list included 124 of the 180 rules.

In 1951, only 56 per cent of the hospitals representing 71 per cent of the maternity beds received full licenses and 44 per cent held provisional licenses. As of March 1 of this year, 90 per cent of the 238 maternity hospitals representing 95 per cent of the available maternity beds had full licenses with ten per cent holding provisional licenses. Hospitals with provisional licenses increased from a low of three per cent, two years previously, before 31 more rules were given the weight of immediate compliance. In order to help hospitals qualify for full licenses, the Division of Maternal and Child Health prepared a hospital manual designed to clarify the rules and to answer questions about the various ways of complying with them.

Besides the review of plans for building and remodeling, health department personnel give consultation on request to hospitals on: the control of infection; nursing techniques; care of premature infants; identification of newborn infants; equipment; records; the physical plant; ventilation; radiation control; perinatal (before, during and after birth) morbidity and mortality studies; the development of staff policies on analgesia, anesthesia and oxytocics and other aspects of hospital care.

The Michigan Department of Health is pleased to cooperate with the thousands of dedicated persons who are endeavoring to give Michigan citizens the safest and best possible hospital care.

Fewer lung cancer patients will die of their disease when physicians will think of cancer every time they see a male patient of middle age and a heavy smoker, who has a chest complaint.

* * *

All suspected melanomas should be *totally* extirpated and histologically examined.

topical strategy...

ACHROMYCIN OINTMENT 3%

For infectious dermatoses. Unsurpassed broad-spectrum control of causative organisms and complicating mixed invaders. Excellent local toleration; low sensitizing potential. In ½ oz. and 1-oz. tubes.

ACHROMYCIN OINTMENT 3% WITH HYDROCORTISONE 2%

For inflammatory dermatoses. Classic corticoid suppression of erythema, swelling, weeping, pruritus . . . plus ACHROMYCIN control of pyogenic or subclinical secondary infection. In 5 Gm. tube.

ACHROMYCIN®

Tetracycline Lederle



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York Lederle

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

Communications

Mr. William J. Burns
Michigan Medical Society
Lansing, Michigan

Dear Bill:

You and your associates, including my friends Dr. Whittaker and Dr. Beck knocked out "home runs" in your BEAUMONT MEMORIAL FOUNDATION issue of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. I am delighted with it.

It is magnificently rendered and produced. It becomes strictly a library piece of my private shelves, long to be cherished and enjoyed.

My hearty compliments. And many thanks.

Sincerely yours,

W. S. WOODFILL
Chairman Mackinac Island
State Park Commission

Mackinac Island
May 30, 1959

●

Dear Doctor:

You have all been wondering just what progress may be occurring in the development of the Michigan Relative Value Scale. A letter from the Michigan State Medical Society dated May 21, 1959 states that the Relative Value Study questionnaire has been completed and will shortly be printed and mailed to all members of the Michigan State Medical Society by late summer. After the questionnaire survey has been completed and tabulated, the Relative Value Study committee will request help and advice from all specialty groups regarding the establishment of relative values in each area of medical practice.

It is extremely important that every Internist make some analysis of his practice so that accurate determinations can be given not only for current fees for various services but also the relative number of times you may do various services per year. It is assumed there must be some weight given to the number of times any physician may accomplish a service. It would seem obvious that more consideration be attached to a physician's report when that physician does a patient service several hundred times in a year as contrasted with a physician who may do the same service a relative few times a year.

By now, all members have probably been informed that the Wayne County Medical Society has elected an almost entirely new slate of delegates to the Michigan State Medical Society House of Delegates. This represents a very major rebellion on the part of a majority of the Wayne County physicians to the controversial features of M-75. The "Committee for Evaluation of Michigan Medical Service" did a fine job of informing physicians about the facts concerned and in proposing for election delegates who were committed to representing the majority and the will of the Wayne County Medical Society. This was accomplished despite a counter campaign of insinuations that the Evaluation Committee desired to destroy Blue Cross and Blue Shield. The fact that the "Committee for Evaluation of Michigan Medical Service" desired primarily the return of Blue Shield to its original concepts of medical service contracts for low income groups has been well established. It was a major victory for the Evaluation Committee and may presage a new turn of events in the

(Continued on Page 1338)

Say you saw it in the Journal of the Michigan State Medical Society



A Vacation from Hay Fever is a Real Vacation

ANYWHERE – ANYTIME

Just a "poof" of fine **NTZ** *spray brings relief* IN SECONDS, FOR HOURS

NTZ is a potentiated, balanced combination of these well known synergistic compounds:

Neo-Synephrine® HCl, 0.5%
– dependable vasoconstrictor and decongestant

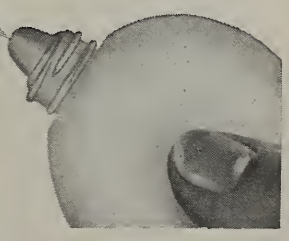
Thenfadil® HCl, 0.1%
– potent topical antihistaminic.

Zephiran® Cl, 1:5000
– antibacterial wetting agent and preservative.

NTZ®

NASAL SPRAY

Supplied in leakproof, pocket size squeeze bottles of 20 cc.



Winthrop LABORATORIES
New York 18, N. Y.

Say you saw it in the Journal of the Michigan State Medical Society

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

MEDICAL ARTS

SUPPLY COMPANY
311 State Street, S.E. Phone GL 9-9413

PHARMACY
20-24 Sheldon, S.E. Phone GL 6-9661

DRIVE-UP PHARMACY
311 State Street, S.E. Phone GL 9-8294

Grand Rapids, Michigan

(Continued from Page 1336)

Michigan State Medical Society House of Delegates meeting next September.

The Wayne County Delegates will undoubtedly need and acquire some out-state delegate support in order to pass resolutions regarding M-75 such as were presented to last year's House of Delegates. The fact that the "Committee for Evaluation of Michigan Medical Service" could accomplish such a major change in the Wayne County Delegates certainly indicates that a majority of the Wayne County physicians have a real interest in the policies governing Michigan Medical Service and also in opposition to some of the present policies. This change is also a fine demonstration of where any political activity must originate for physicians—that is, within the county medical societies. It is also a demonstration of the importance to every physician of maintaining an interest and keeping informed in his county and state society business. This may well be a suitable time for someone to suggest that the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY should include a "Letters to the Editor" or "Voice of the People" section where both sides of controversial issues could be presented. For months the editorials in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY have expressed only one side of the controversial features of M-75. You all can well remember that the Michigan Society of Internal Medicine last summer had to send a separate letter to all members of the Michigan State Medical Society in order to present the Internist's views on some current policies of the Michigan State Medical Society.

A new fiscal year starts July 1, and the statement for annual dues will shortly be sent to each of you. Please remember that Doctor Richard Bates is the secretary-treasurer and that his address is on our letterhead. Some members are still sending orders for insurance forms, et cetera to the old address. As a former secretary-treasurer, I would like to request that each of you pay the annual dues promptly. This will be a great help to the secretary and will decrease some of his work load.

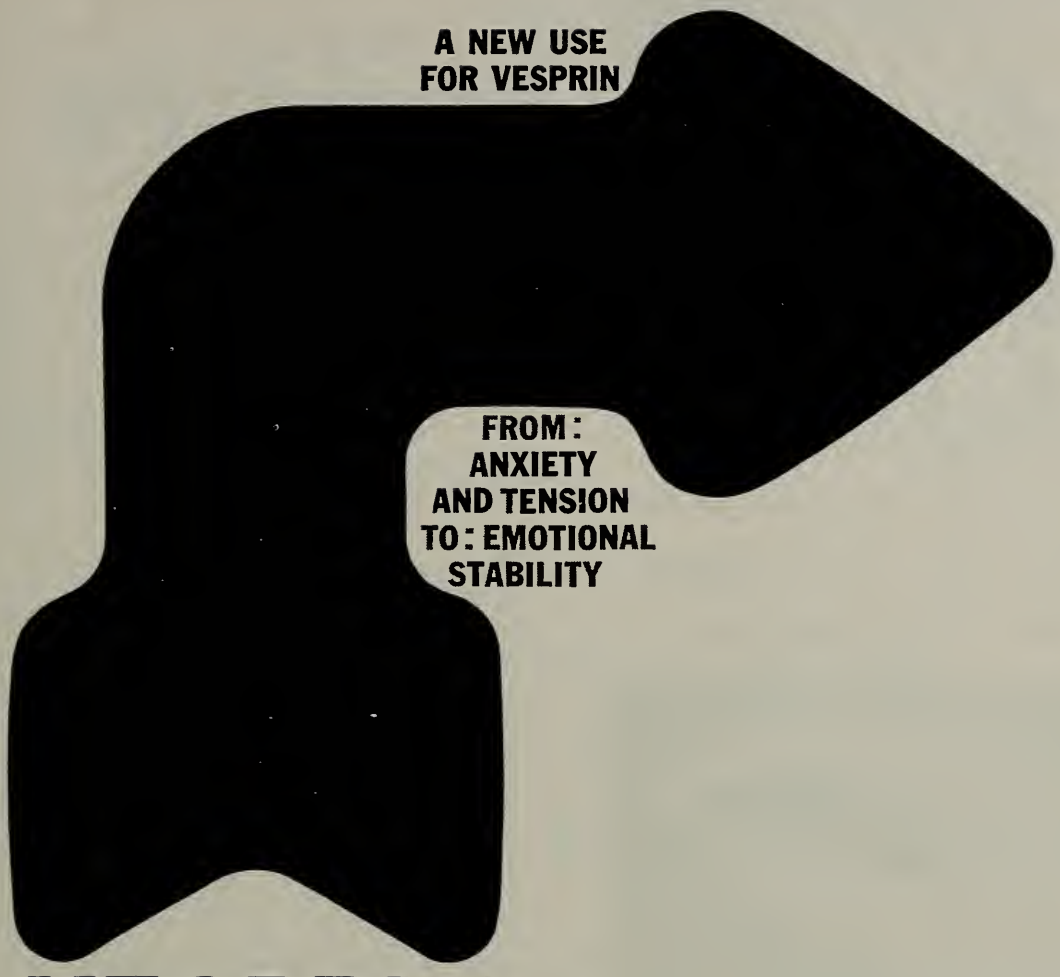
Sincerely,
ROSS V. TAYLOR, M.D.
President, Michigan Society of Internal Medicine

June 1, 1957

REDUCTION OF FETAL AND NEONATAL MORTALITY AND MORBIDITY

(Continued from Page 1258)

2. Michigan Department of Health Hospital Manual. Lansing, Michigan, 1958.
3. Nesbitt, Robert E. L., Jr.: Perinatal Loss in Modern Obstetrics. Philadelphia: F. A. Davis Co., 1957.
4. Perinatal, Infant, Childhood, and Maternal Mortality. Statistical Series No. 50, Children's Bureau. Department of Health, Education and Welfare, Washington, D. C., 1958.
5. Perinatal Mortality Study Guide. Michigan Department of Health, Lansing, Michigan, 1958.
6. Resuscitation of the Newborn Infant. Illinois: American Academy of Pediatrics, 1958.
7. Vital Statistics—Special Reports. National Summaries Vol. 48, No. 9, page 273. Mortality from selected causes: United States and Each State, and Alaska, Hawaii, Puerto Rico, and the Virgin Islands (U. S.), 1956. Department of Health, Education and Welfare. Washington, D. C.



VESPRIN made the difference

SQUIBB TRIFLUPROMAZINE HYDROCHLORIDE

in anxiety and tension states / psychomotor agitation / phobic reactions / obsessive reactions / senile agitation / agitated depression / emotional stress associated with a wide variety of physical conditions

In the patient with anxiety and tension symptoms — Vesprin calms him down without slowing him up... and does not interfere with his working capacity. Vesprin permits tranquilization *without* oversedation, lethargy, apathy or loss of mental clarity.[4]

And Vesprin exhibits an improved therapeutic ratio — enhanced efficacy with a low incidence of side effects; no reported hypotension, extrapyramidal symptoms, blood dyscrasia or jaundice in patients treated for anxiety and tension.[1,2,3]

dosage: for "round-the-clock" control — 10 mg. to 25 mg., b.i.d.; for "once-a-day" use — 25 mg. once a day, appropriately scheduled, for therapy or prevention. **supply:** Oral Tablets, 10, 25 and 50 mg., press-coated, bottles of 50 and 500; Emulsion (Vesprin Base) — 30 cc. dropper bottles and 120 cc. bottles (10 mg./cc.). **references:** 1. Stone, H.H.: Monographs on Therapy *3*:1 (May) 1958. 2. Reeves, J.E. Postgrad. Med. *24*:687 (Dec.) 1958. 3. Burstein, F.: Clinical Research Notes *2*:3, 1959. 4. Kris, E.: Clinical Research Notes *2*:1, 1959. 'VESPRIN®' is a Squibb Trademark

Vesprin—the tranquilizer that fills a need in every major area of medical practice

SQUIBB
Squibb Quality —
the Priceless Ingredient



KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

Legal Opinion

HOSPITAL EXECUTIVE COMMITTEE

Dear Secretary:

Your letter of March 20, 1959, has been referred to me for opinion and reply.

Let me observe at the outset that the subject of the right of access to hospital records generally presents a confused and confusing picture by reason of widely varying hospital policies and the lack of specific statutory or case law on the subject. There are no statutes nor adjudicated cases in Michigan that throw much light on the subject and those from other states are generally vague and sometimes conflicting. I believe, however, that certain basic principles have been established and are generally recognized and that recognition of these fundamental principles will furnish an acceptable answer to most questions.

Basically, the hospital records are the property of the hospital and not of the patient or physician. The hospital can always be required to produce such records by subpoena and, of course, has no choice in the matter when required to produce its records by a court or judicial body. It is my opinion, therefore, that the hospital is well within its rights in refusing to permit its records to leave the hospital except in custody of its own agent and under valid subpoena.

With respect to the right and obligation of the hospital to permit examination of the records within the hospital, somewhat different considerations are involved. It is within this area that the rights of the patient become paramount. The patient has the unquestioned right to privacy and the right to have his records treated as confidential. This right of privacy and privilege is, however, that of the patient and not of the physician. In view of the fiduciary nature of the relationship between patient and hospital, I believe the patient also has the right under reasonable circumstances to have access to the records which are frequently vital to the preservation and establishments of his rights against others.

It is therefore my opinion that (1) the hospital may not properly permit access to or inspection of the patient's record without express consent and authorization of the patient, (2) that consent of the physician is not necessary, and, (3) that the hospital may not unreasonably refuse to permit the patient or his duly authorized representative to inspect the records.

Very truly yours,

Detroit, Michigan
March 30, 1959

LESTER P. DODD,
Legal Counsel, MSMS

The belief that polio is a "disease of the past" may be keeping people from getting their full series of Salk injections, says Health Information Foundation. Only about half the U. S. population under age 40 had been fully vaccinated by the beginning of 1959.

Say you saw it in the Journal of the Michigan State Medical Society

in HAY FEVER *Family Physicians use*

specific desensitization for *lasting immunity

. . . easily, pleasantly and economically

SPECIFIC DESENSITIZATION . . .

is easily accomplished, quickly and accurately by any physician. Simply scratch test each patient by using activated Barry allergens to determine what offends the patient. Then send a list of these offenders with their reactions to Barry for the preparation of a specific desensitization formula which promotes *lasting active immunity*. For scratch testing your patient, use the Barry Pollen-Pack containing 21 tests of Tree, Grass and Weed pollens including Fungi and House Dust, all botanically correct for your locality. Safe, simple, time-proven technique complete with directions for your nurse.

LASTING ACTIVE IMMUNITY . . .

is obtained by desensitizing patients for the specific irritants to which your patient reacted by the scratch test. Each desensitization formula is individually prepared for each patient according to his own needs based upon the list of irritants that you supply and the degree of reaction of each. Specific desensitization immediately *promotes active immunity* lasting longer than any other known medication. Each specific treatment is prepared in a three vial serial dilution set (20 doses) and includes a personalized treatment schedule indicating the correct interval to use between injections. For patients that have already been skin tested by any means, send their list of offenders to the Allergy Division. Prompt 7-10 day service for all Rx's.

*write for free literature

FREE
Scratch Test Set
with each Rx Specific Desensitization Set prepared according to your patient's own skin test reactions.

BARRY LABORATORIES, INC.
Allergy Division
DETROIT 14, MICHIGAN

BARRY

In Memoriam

JOHN T. CONNELL, M.D., seventy, Flint physician for nearly four decades, died June 16, 1959.

Doctor Connell was a native of Erie, Pennsylvania. He received his medical degree in 1918 from the University of Michigan, where he was on the teaching staff, with the exception of one year, until coming to Flint in 1921.

Doctor Connell, an internal-medicine specialist, served as chief of staff at St. Joseph Hospital in Flint from 1940 to 1944 and again from 1949 until he retired from the post December 26, 1958. On his retirement, the St. Joseph staff voted him the title of emeritus chief to honor his years of service.

Doctor Connell held membership in numerous professional organizations and in 1944 served as president of the Genesee County Medical Society. In 1946 he was elected president of the Flint Hospital Council.

ARTHUR L. HIGBEE, M.D., fifty-eight, Detroit physician and surgeon, died June 10, 1959.

Born in Corning, Iowa, Doctor Higbee received his education at Rush Medical College, the University of Chicago and served his internship in Chicago Central Hospital.

Doctor Higbee practiced in Detroit from 1929 until his retirement two years ago.

WERNER C. KERSTEN, M.D., sixty-four, a former Wayne County Medical Examiner, died June 10, 1959.

A native Detroiter, Doctor Kersten was a graduate of Loyola University and Wayne State University College of Medicine. He had been Wayne County Medical Examiner from 1925 until 1934.

Doctor Kersten was a past president of the Grosse Pointe Lions Club

LOUIS K. PECK, M.D., eighty-nine, Barryton physician, died June 19, 1959.

Doctor Peck, an 1892 graduate of Syracuse University, moved to Barryton in 1915 and maintained his practice there until the time of his death.

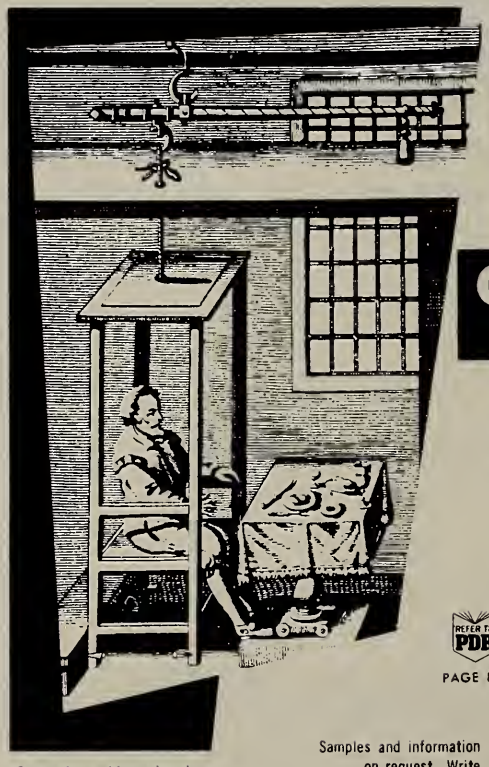
Doctor Peck was presented a Fifty-Year Award by MSMS in 1947.

LE MOYNE UNKEFER, M.D., thirty-six, a Grand Rapids general practitioner, lost her life June 19, 1959 in a fire in her home.

Doctor Unkefer had shared a medical practice with her husband, George H. Ruggy, M.D., in suburban Comstock Park since 1954. Her husband, her mother-in-law and two sons escaped uninjured in the fatal fire.

Doctor Unkefer, a native of Canton, Ohio, met and married her husband at Ohio State University, where he was an assistant Professor in the medical school.

She was a member of St. Andrew's Episcopal church in Grand Rapids, and Order of Eastern Star.



Sanctorius on his steelyard chair in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR

PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

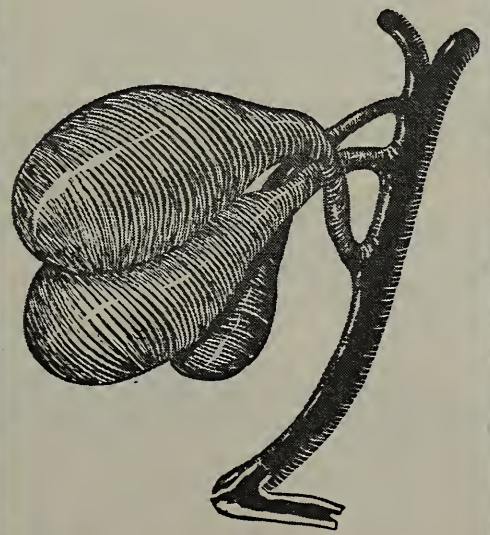
AN AMES CLINIQUICK™

CLINICAL BRIEFS FOR MODERN PRACTICE

HOW PREVALENT ARE MULTIPLE GALLBLADDER ANOMALIES?

One hundred and twenty-two cases of *vesica fellea divisa* (bilobed gallbladder) and *vesica fellea duplex* (double gallbladder with 2 cystic ducts) are reported in the literature. A unique case of *vesica fellea triplex* has recently been described.

Source: Skilboe, B.: Am. J. Clin. Path. *30*:252, 1958.



in medical management and postoperative care of biliary disorders...

"effective" hydrocholeresis...

DECHOLIN®

(dehydrocholic acid, AMES)

"...dehydrocholic acid...does considerably increase the volume output of a bile of relatively high water content and low viscosity. This drug is therefore a good 'flusher,' and is effectively used in treating both the chronic unoperated patient and the patient who has a T-tube drainage of an infected common bile duct."[1]

free-flowing bile
plus reliable spasmolysis

DECHOLIN® WITH BELLADONNA

"...DECHOLIN/Belladonna in a dosage of one tablet t.i.d. for a period of two to three months may prove helpful in relieving postoperative symptoms, aiding the digestion, and facilitating elimination."[2]

(1) Beckman, H.: Drugs: Their Nature, Action and Use, Philadelphia, W. B. Saunders Company, 1958, p. 425.
(2) Biliary Tract Diseases, M. Times *85*:1081, 1957.

AMES COMPANY, INC
Elkhart • Indiana
Toronto • Canada

64659



NEWS MEDICAL

MICHIGAN AUTHORS

Marvin Jay Lubeck, M.D., Ann Arbor, is the author of an article entitled "Papill-edema Caused by Iron-Deficiency Anemia," presented at the Sixty-Third Annual Session of the American Academy of Ophthalmology and Otolaryngology, October 12-17, 1958, Chicago, and published in *Transactions, American Academy of Ophthalmology and Otolaryngology,* May-June, 1959.

J. P. Gray, M.D., Detroit, is the author of an article entitled "Medical Writing for Medical Students," published in *The New Physician,* June, 1959.

Khurshid, A. Mian, M.P.H., Ann Arbor, is the author of an article entitled "Microbial Sensitivity Test in Management of Urinary Tract Infections," published in the *Journal of the American Medical Association,* June 20, 1959.

Hermann Pinkus, M.D. and **Harold Plotnick, M.D.,** Detroit, are the authors of an article entitled "Destruction of Fingerprint Pattern by Superficial Late Syphiloderm," published in AMA *Archives of Dermatology,* December, 1958.

Hermann Pinkus, M.D., Detroit, is the author of an article entitled "Zur Entwicklung des Haarfollikels beim Menschen, ins besondere des Infundibulums und des bindegewebigen Anteils," published in Sonderdruck aus *Der Hautarzt,* April, 1959. Dr. Pinkus is also the author of an article entitled "Part V, Clinical Applications of Psoralens, and Related Materials, Vitiligo—What Is It?," presented at the Brook Lodge Invitational Symposium on the Psoralens, sponsored by The Upjohn Company, Kalamazoo, Michigan, March 27-28, 1958, and published in *The Journal of Investigative Dermatology,* February, 1959. An article by Dr. Pinkus on "Anatomy of the Skin 1957", was published in *Dermatologica, International Journal of Dermatology,* Vol, 118, No. 1 (1959).

Frank J. Condon, M.D., Royal Oak, is the author of an article entitled "Erythema Infectiosum—Report of an Area-Wide Outbreak," published in *American Journal of Public Health,* April, 1959.

Lester P. Dodd, Detroit, is the author of an article entitled "A Lawyer Looks at the Medical Profession," presented before the Woman's Auxiliary of the Wayne County Medical Society and published in *British Columbia Medical Journal,* May, 1959. (Reprinted from JMSMS.)

Kenneth R. Magee, M.D., Ann Arbor, is the author of an article entitled "The Treatment of Myasthenia Gravis," published in *GP,* June, 1959.

Ian M. Thompson, M.D., Ann Arbor, is the author of an article entitled "Dyclone—A Topical Urethral Anesthetic," published in *American Practitioner and Digest of Treatment,* June, 1959.

Alfred M. Large, M.D., James E. Lofstrom, M.D., and **Charles S. Stevenson, M.D.,** Detroit, are the authors of an article entitled "Gallstones and Pregnancy," published in AMA *Archives of Surgery,* June, 1959.

Samuel J. Levin, M.D., Detroit, is the author of an article entitled "The Management of the Acute Attack of Asthma in Childhood," published in the AMA *Journal of Diseases of Children,* April, 1959.

Martin F. Buell, M.D., Union City, President of the Branch County Historical Society, is the author of an original article, "Early History of Branch County," published in the *Michigan Courthouse Review,* monthly publication of the Michigan Institute of Local Government and Michigan State Association of Supervisors.

* * *

Fellowship in Rehabilitation.—The creation of the Frank H. Rowe Memorial Fellowship in Rehabilitation for post-graduate training in physical medicine and rehabilitation in the United States for a physician from Australia was announced simultaneously in Melbourne and New York. The fellowship is being given by the World Rehabitation Fund, Inc., in co-operation with the Australian Advisory Council for the Physically Handicapped, the International Society for the Welfare of Cripples, and the Smith, Kline and French Foundation. The Fellowship was created to honor the late Frank H. Rowe, C.B.E., Director-General of Social Services, Commonweath of Australia, 1949-1958, for his contribution to the development of rehabilitation services for the physically handicapped internationally. Announcement of the Fellowship was made in Melbourne by Miss Joan Tuxen, Honorary Secretary, Australian Advisory Council for the Physically Handicapped, and in New York by Dr. Howard A. Rusk, President, World Rehabilitation Fund, Inc. The Fellowship is for a minimum of one year and is subject to renewal. Training under the Frank H. Rowe Memorial Fellowship will be given at the Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York City.

* * *

Symposium on Overweight and Underweight.—A monograph containing proceedings of the March 4, 1959 Symposium on Overweight and Underweight held by the Michigan Academy of General Practice is now available to physicians on request. Copies may be procured through F. P. Rhoades, M.D., chairman of the Commission on Education of the Michigan Academy and program chairman for the symposium.

(Continued on Page 1346)

For every topical indication, a Burroughs Wellcome 'SPORIN'...



Ointment: Tubes of ⅛ oz. and ½ oz. (with applicator tip) for ophthalmic or dermatologic application.

Otic Drops: Bottles of 5 cc. with sterile dropper.



Ointment: Tubes of ½ and 1 oz. and tubes of ⅛ oz. with ophthalmic tip.

Ophthalmic Solution: Bottles of 10 cc. with sterile dropper.

NEW { **Lotion:** Plastic squeeze bottles of 20 cc.
NEW { **Powder:** Shaker-top bottles of 10 Gm.



Ointment: Tubes of ½ oz., 1 oz. and ⅛ oz. (ophthalmic tip).

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

(Continued from Page 1344)

California's senior citizens are currently being offered the opportunity to enroll in a health plan specifically designed for them by California Physicians' Service, the Blue Shield Plan serving the entire state.

The new plan, called "MD-Plan 65," confines coverage to doctors' services, such as surgery and physician visits at the hospital, home or office. Limited x-ray and laboratory benefits are also provided. The plan is being offered on an experimental basis to all Californians sixty-five years of age and older during the month of June.

Physicians of the California Medical Association have approved a special lower schedule of fees in order to make the needed benefits to senior citizens available at a reasonable cost. The California Blue Shield Plan's payment (based on these fees), plus a nominal co-payment by the member, will be accepted as full payment for contract benefits when a single member's income is $3,000 a year, or $4,500 a year for a married couple. The full payment feature applies to services rendered by the 14,000 California Blue Shield physician members only.

Monthly rates for the "MD-Plan 65" are $6.90 a month for a man, $7.90 a month for a woman.

* * *

Surgeon General's Report on Salk Vaccine.—PHS Surgeon General Leroy E. Burney has made public the recommendations of an advisory group which reviewed four years of experience with Salk vaccine against poliomyelitis. It reaffirms the basic series of three injections for persons under 40. For infants up to age 6 months, a 4-injection series is recommended. Meantime, Dr. Burney appealed for greater use of vaccination in the face of rising incidence of paralytic poliomyelitis.

Several scientific papers testifying to effectiveness and safety of the Cox-Lederle live virus vaccine were presented at an international meeting on prevention of poliomyelitis. Its use in infants, pregnant women and children up to age 21 was described in some of the papers. WRMS 6/29/59.

* * *

Socialized Medicine?—One Federal employe needed no health insurance to gain entry to Walter Reed Army Hospital and have the Army Surgeon General remove a hot appendix. On Senate floor, Senator Stephen M. Young (D., Ohio) questioned the right of James Hagerty, White House press secretary, to obtain such VIP service at a total cost of $21 a day. The Ohioan questioned: "Isn't this socialized medicine on a preferential basis?"—WRMS.

* * *

A grant of $81,890 to help small hospitals improve accounting procedures has been received by the Hospital Research and Educational Trust. The general purpose of the project under a grant from the W. K. Kellogg Foundation, Battle Creek, is to provide better financial

(Continued on Page 1348)



If she needs nutritional support . . . she deserves

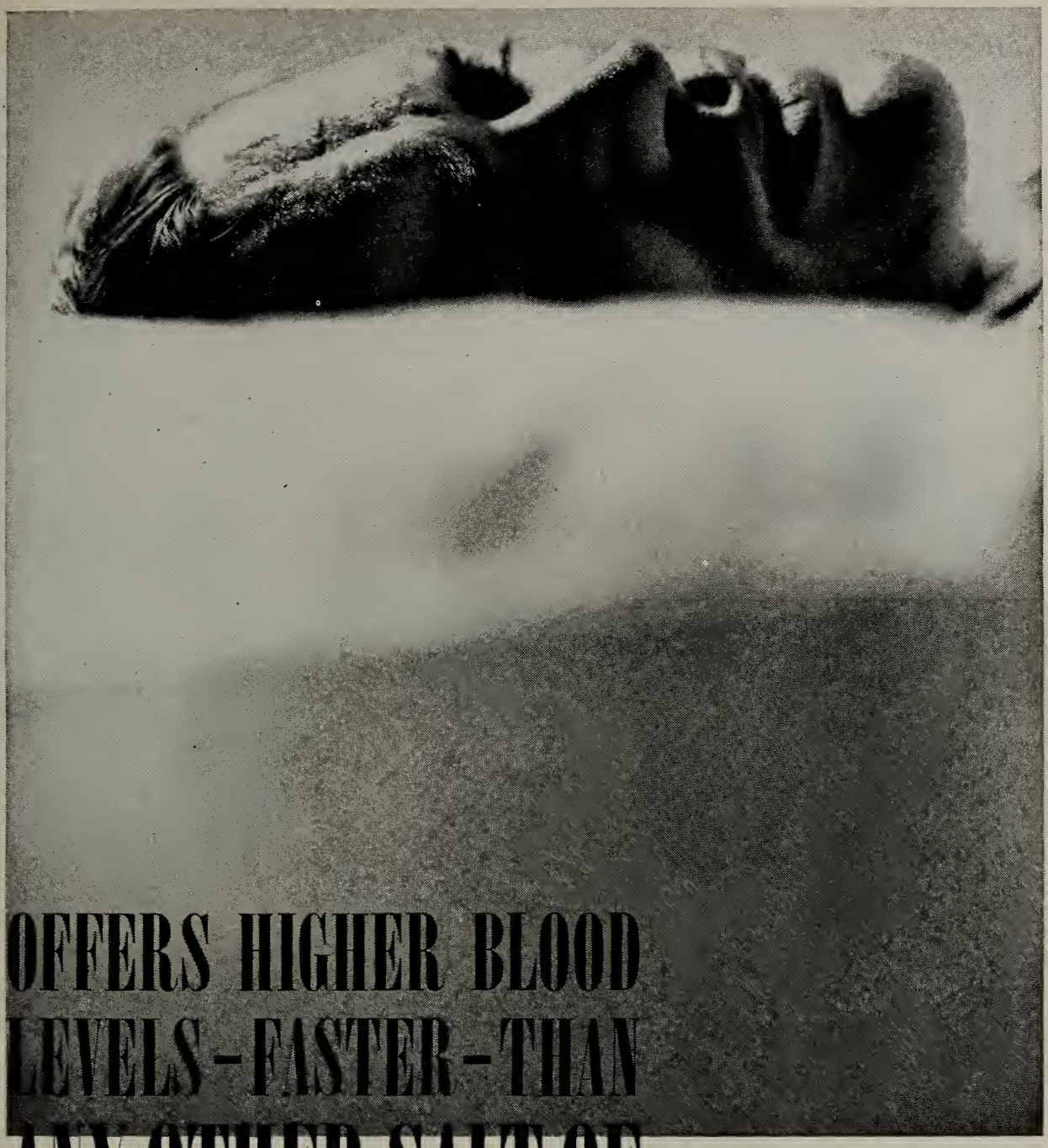
GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

Lederle



OFFERS HIGHER BLOOD LEVELS - FASTER - THAN ANY OTHER SALT OF ORAL PENICILLIN:

908129

COMPOCILLIN®-VK

Potassium Penicillin V

® FILMTAB — FILM-SEALED TABLETS, ABBOTT. U.S. PAT. NO. 2881085

Supplied: Compocillin-VK Filmtabs, 125 mg. (200,000 units), bottles of 50 and 100; 250 mg. (400,000 units), bottles of 25 and 100. Compocillin-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. When reconstituted, each 5-cc. teaspoonful represents 125 mg. (200,000 units) of potassium penicillin V.

ABBOTT

in tiny, easy-to-swallow Filmtabs® in tasty, cherry-flavored Oral Solution

(Continued from Page 1346)

and statistical information to hospital administrators and trustees to aid them in making management decisions.

The grant will finance the Hospital Administrative Services project of the Trust in the three-state area of Colorado, Nebraska, and South Dakota. Expansion to include larger hospitals and hospitals in other states is expected.

A grant from the Kellogg Foundation enabled the American Hospital Association to conduct a pilot study which had verified the practicability of central preparation of accounting and staistical reports for hospitals.

* * *

The 45th annual Clinical Congress of the American College of Surgeons will be held in Atlantic City, New Jersey, September 28 through October 2, 1959, exactly duplicating the Michigan State Medical Society dates which were set five years in advance.

* * *

Avoid Mushrooms.—In the month of June, six children brought to The University of Michigan Medical Center for possible mushroom poisoning luckily had picked on eatable varieties of wild mushrooms. Said Alexander H. Smith, Ph.D., a U-M botanist: "Eating a wild mushroom remains as risky as Russian roulette. Like the game, there's about one chance in ten that a mushroom will cause a serious case of poisoning." Dr. Smith urges parents to keep their children out of mushrooms, and vice versa. He states that there is no simple test to show whether a mushroom is poisonous. "The color of the mushroom underneath, where it grows or how it peels are all unreliable gauges."

Identification of poisonous mushrooms is so complex that it often calls for an extensive examination. When there is a case of suspected poisoning, doctors at the U-M Medical Center depend on botanists to identify the variety of mushroom involved.

"Don't just pick another mushroom to show your doctor," Smith warns parents. "Make sure the one that was eaten, or the material from the stomach, is brought in because poisonous and non-poisonous species can grow side by side."

* * *

The Sister Elizabeth Kenny Foundation announces continuation of its program of post-doctoral scholarships to promote work in the field of neuromuscular diseases. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields concerned with the broad problem of the neuromuscular diseases.

The Kenny Foundation Scholars will be appointed annually. Each grant will provide a stipend for a five-year period at the rate of $5,000 to $7,000 a year depending upon the scholar's qualifications. Candidates from medical schools in the United States and Canada are eligible.

Inquiries regarding details of the program should be addressed to: Dr. E. J. Huenekens, Medical Director,

(Continued on Page 1350)



he deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

CHOICE THERAPY FOR THE "OLDER" PATIENT WITH MILD TO MODERATE HYPERTENSION



℞ Veratrite®

More than 13,000,000 prescriptions attest that Veratrite continues to be the antihypertensive of choice for the older hypertensive patient. Veratrite can be prescribed safely and routinely for those who usually cannot tolerate more potent drugs.

Veratrite now contains cryptenamine which acts centrally to produce a gradual fall in blood pressure, yet improves circulation to vital organs, relieves dizziness and headache, and imparts a distinct sense of well-being. Furthermore, Veratrite achieves its effects with unusual safety and without annoying side effects.

Each Veratrite tabule contains: Cryptenamine (tannates), 40 C.S.R.* Units; Sodium nitrite, 1 gr.; Phenobarbital, ¼ gr. Dosage: 1–2 tabules t.i.d., preferably 2 hours after meals.

*Carotid Sinus Reflex

Neisler IRWIN, NEISLER & CO. • DECATUR, ILLINOIS

(Continued from Page 1348)

Sister Elizabeth Kenny Foundation, Inc., 2400 Foshay Tower, Minneapolis 2, Minnesota.

* * *

Radiation Biology.—Wayne State University College of Medicine's third Summer Institute in Radiation Biology, June 22-July 31. Twenty participants from twelve states participated in the intensive six-week program.

The institute is sponsored by the Atomic Energy Commission and the National Science Foundation. Enrollees are junior and senior high school biology, mathematics or science teachers.

Co-directors of the institute are Dr. Arthur J. Vorwald, professor and chairman of Industrial Medicine and Hygiene and Dr. James E. Lofstrom, professor and chairman of Radiology.

Virgil E. Kingsley of Vicksburg, Michigan, was this state's only representative. Others attended from Kentucky, Virginia, Alabama, Mississippi, New York, Massachusetts, Pennsylvania, Ohio, Illinois, Wisconsin and California.

* * *

A new laboratory method of diagnosing the disease of multiple myeloma—first cousin to leukemia, is reported in Ann Arbor by Robert Pineiro, Dr. Ronald C. Bishop and Dr. Reuben L. Kahn (Sc.D.) employing a blood test developed by Dr. Kahn ten years ago.

Called the "universal serologic reaction," the test is a medical oddity for it reveals the presence of multiple myeloma by a negative reaction. Its discoverer, Dr. Kahn, earlier gave medicine the valuable "Kahn test" for syphilis. The USR is a sophisticated method for testing natural antibodies in the globulin, a blood serum protein.

About a year ago, the Michigan scientists became interested in a disease called multiple (or plasmacytic) myeloma, a cancerous disorder marked by abnormal globulin. When researchers tested the multiple myeloma patients with the USR, they had a distinct surprise: For the first time in its history, the USR produced a negative reaction. Since then they have tested sixteen patients known to be suffering from the disease. Twelve showed negative reactions. The other four gave slight positive reactions, believed due to blood transfusions they had received from persons with normal globulin.—*Journal Laboratory and Clinical Medicine,* May, 1959.

* * *

Many of the problems which arise in the minds of parents when their children participate in school athletic programs and physical education have received careful study with resulting sound advice in "Answers to Health Questions in Physical Education," published in June, 1959, by the American Association for Health, Physical Education, and Recreation.

This twenty-four-page report, prepared through the joint efforts of the American Medical Association and the National Education Association to define health responsibilities of coaches and physical educators, will be

(Continued on Page 1352)



they deserve

GEVRAL®

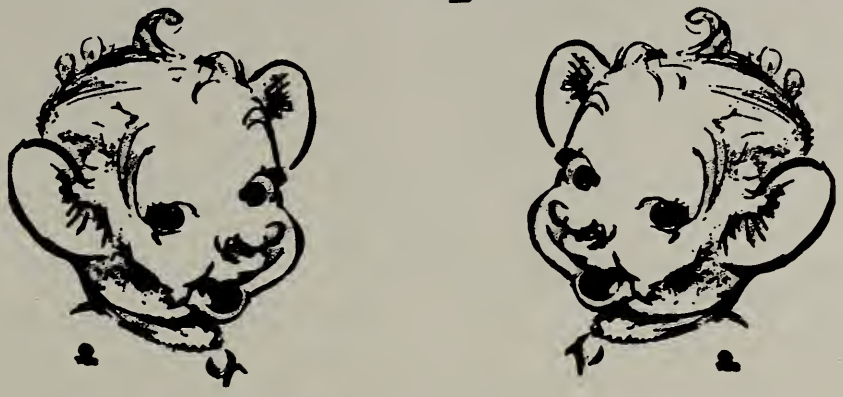
Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Give me two good reasons



why Buttermilk is a dietary food!

LOW CALORIES, HIGH ESSENTIAL NUTRITION

One glass, or ½ pint, of plain Buttermilk (uncreamed) contains only 87 calories; a whole quart, only 350. Yet uncreamed buttermilk contains all of whole milk's complete proteins, B vitamins, and minerals. One good dietary reason!

BENEFICIAL BACTERIAL-ENZYME ACTION

For many years Buttermilk has been prescribed as an aid in promoting healthful bacterial balance in the digestive tract, especially the lower tract. Second good dietary reason!



and Borden's is extra good Buttermilk!

Making buttermilk sounds simple, but certainly isn't simple at all! Borden's Buttermilk has a deserved reputation for fresh, sweet wholesome flavor.

Borden's

MICHIGAN MILK DIVISION

(Continued from Page 1350)

of real interest to parents, school administrators, community youth organizations, and students.

Concise and authoritative advice is given on infection and the spread of disease, responsibility for first aid, smoking and drinking, use of "pep pills," exercise and the healthy heart, precautions and responsibility in cases of injury, and dozens of other questions and situations which could arise in a normal school program of athletics and physical education. Single copies are available at 50 cents from the American Association for Health, Physical Education and Recreation, 1201 Sixteenth Street, N.W., Washington 6, D. C.

* * *

Two Michigan doctors served on reference committees of the American Medical Association House of Delegates at Atlantic City, June 8-12.

Clarence I. Owen, M.D., Detroit, was a member of the Reference Committee on Reports of Officers; while John S. DeTar, M.D., Milan, was chairman of the Special Reference Committee to Consider the Report of the Commission on Medical Care Plans.

* * *

Henry F. Vaughan, first dean of the University of Michigan School of Public Health, retired this summer from the faculty. Mr. Vaughan, in beginning his retirement furlough, will serve a year of consultantship to the University.

The 24th Annual Congress of the North American Federation, International College of Surgeons, will be held at the Palmer House, Chicago, September 13-17. Among the special features will be military reports on medical operations and research in climatic and environmental extremes, to be presented by six Navy medical officers. Their reports will cover the problems of space flights and prolonged stays in frigid zones, tropical climates, or underwater.

Prof. Dr. Andre Thomas of the Faculty of Sciences, the Sorbonne, Paris, inventor of an artificial pulmonary membrane, will give a demonstration of progress in artificial cardio-pulmonary circulation and the physiological and surgical results obtained from the use of his instrument.

* * *

The number of foreign students studying in the United States has increased 38 per cent in the last five years, the Institute of International Education reported in a survey just released. The 47,245 students from 131 countries registered in U. S. colleges and universities this year represent a 9 per cent increase over the number last year and an 86 per cent increase over that of the academic year 1948-49. According to all available statistics, the current figure represents the largest foreign student population in any country of the world. American colleges and universities reported 1,937 foreign faculty

(Continued on Page 1354)



GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B_1)	5 mg.
Riboflavin (B_2)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B_6)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as $CaHPO_4$)	157 mg.
Phosphorus (as $CaHPO_4$)	122 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Manganese (as MnO_2)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

The Medical Department
of The Purdue Frederick Company
is proud to introduce to the medical profession

ARTHROPAN™

BRAND OF CHOLINE SALICYLATE, PATENT PENDING

LIQUID

the newest antiarthritic,
anti-inflammatory analgesic—
· without the disturbing
side effects of steroids,
· without the dangers
of blood dyscrasias,
· without the limitations and
discomforts of
usual salicylate therapy.

ARTHROPAN Liquid... "born of a therapeutic need"... The need was for a better antiarthritic agent—an agent free of the therapeutic limitations and the discomforting or potentially dangerous side effects associated with usual therapies... Under development for several years, ARTHROPAN has been studied in several thousand patients by more than 180 investigators and is currently being evaluated in many different disorders... The rapid effectiveness, the comfortable and constant action, and the certain safety of new ARTHROPAN Liquid are established as clinical facts... ARTHROPAN breaks through therapeutic barriers and offers the arthritic patient new vistas in successful therapy of arthritis.

The Purdue Frederick Company DEDICATED TO PHYSICIAN AND PATIENT SINCE 1892
NEW YORK 14, N.Y. | TORONTO 1, ONTARIO

© Copyright 1959, The Purdue Frederick Company

(Continued from Page 1352)

members this year, in comparison to 635 in 1954-55. With 1,842 American faculty abroad, this was the first year on record that we "imported" more professors than we "exported."

* * *

The American Board of Obstetrics and Gynecology has issued a list of all of the physicians certified for the year 1959. The following are listed from Michigan: Emil J. Alban, Jr., Allen Park; Donald C. Brown, Alpena; Robert M. Jesson, Muskegon; Robert E. Kuhn, Royal Oak; Joseph H. Leep, Grand Rapids; Joseph C. Leshock, Lansing; Richard J. Murray, Flint; John N. McNair, Muskegon; Richard T. Mellis, Kalamazoo; Sidney S. Miller, East Detroit; Joseph J. Rowe, Garden City; Robert M. Stewart, Livonia; Donald W. Thorup, Benton Harbor (Single Obstetrics); and the following from Detroit: John H. Doran, Berj H. Haidostian, Wayne N. Jacobus, Maerit B. Kallet, Warren R. Moore, James H. Robinson, Jr., Lorraine A. Sievers, John J. Smolenski.

* * *

The American Rhinologic Society will meet at the Belmont Hotel in Chicago on October 10, 1959. A very interesting all day program beginning with breakfast at 8:00 a.m. has been planned. This will be preceded by a three-day Surgical Seminar at the Illinois Masonic Hospital, October 7, 8, and 9, 1959.

Nearly 1,100 young people seeking to enter medical schools in September, 1959, have applied for one of the 103 medical student scholarships offered by The National Foundation. More than 4,600 applications were received from students seeking financial assistance to enter the health field. In addition to students seeking help to enter medical schools, approximately 2,500 young people sought to enter schools of nursing, 500 to enter physical therapy, 200 to enter medical social work, and 300 to enter schools of occupational therapy.

The health scholarships provide $2,000 for four years of college education for each recipient and are a part of the newly expanded program of The National Foundation to extend the frontiers of its research and patient aid developed in the conquest of poliomyelitis. The National Foundation selected arthritis and congenital malformations of the central nervous system to cover actively.

* * *

Conference on Mental Health.—The new president of the American Medical Association, Louis M. Orr, M.D., was the featured speaker at a one-day symposium in Detroit, July 1. The program was co-sponsored by Wayne State University College of Medicine and the Department of Post-graduate Medicine of the University of Michigan Medical School. Dr. Orr, in making his first

(Continued on Page 1356)



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

C. A. Conshus, M.D., Says . . .



You may think it is only a wart,

Or a wen, or a mole of some sort.

They're easy to fix,

But they do some odd tricks.

Into cancer they quickly cavort.

Skin cancer is brought to a halt,

By surgery, x-ray or cobalt.

So since it's your hide,

It's for you to decide

If you win or you lose by default.



POINT - Skin

DANGER SIGNAL - Any change in a wart or mole.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

(Continued from Page 1354)

address as President of the American Medical Association, was introduced by Dr. Chauncey D. Leake, president-elect of the American Association for the Advancement of Science. James G. Miller, M.D., director of the U-M Mental Health Research Institute was in charge of the symposium. The 250 doctors attending the conference heard reports on a new drug "n-isopropyl-2-methyl-2-propyl-1, 3-propanediol dicarbamate (Soma)." The drug is a new muscle relaxant and analgesic for muscle and joint pain. The program was the first public report on its laboratory and clinical evaluation. Michigan participants included Dean Gordon Scott of Wayne State, and Doctors Raymond W. Waggoner, James Olds, Donald Korst, Ralph W. Gerard and James G. Miller of the U-M Medical Center.

* * *

A new booklet, which offers suggestions for helping young people to overcome some of their difficulties, has just been published by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association.

Entitled "As Others See Us," the thirty-six-page booklet covers such areas as physical appearance, poise and gracefulness, personal characteristics, and physical defects. It discusses the effect of grooming, clothing, posture, manners, speech, and physical defects on adolescents as they bridge the period between childhood and adulthood.

Single copies may be obtained at 25c each from the Order Department of the A.M.A., 535 N. Dearborn St., Chicago 10, Ill. Quantity discounts are available.

* * *

Max Karl Newman, M.D., Detroit, addressed the staff of Crile General Hospital in Cleveland, Ohio, in June, 1959. His topic was "Prosthetic Prescription and Training in Geriatric Medicine." Dr. Newman also participated in the twelfth annual Conference on Aging held in Ann Arbor, June 23.

* * *

The Mid-Atlantic Meeting of the International College of Surgeons will be held at the Homestead Hotel, Hot Springs, Virginia on November 16, 17, and 18, 1959. The profession is cordially invited to attend.

* * *

The National Congress on Environmental Health held a three-day meeting at the University of Michigan School of Public Health, starting June 29. The sessions reviewed state and city programs concerned with radioactive fall-out. The plastic pipe health control program, which involves certification of plastic pipe to be used in drinking water supply lines received major consideration by industry and public health specialists. About 150 participants including representatives of the pipe and plastic industries, sanitary experts and public health officials were in attendance.



Athemol FOR ARTERIOSCLEROSIS

Athemol (R), Meyer brand of Magnesium 3-7-dimethyl zanthine oleate, is a new compound for the treatment of arteriosclerosis and atherosclerosis.

Athemol tablets are available in bottles of 100 and 500

MEYER AND COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE • ST. CLAIR SHORES, MICH.



BRIGHTON HOSPITAL

A non-profit foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
One block south of U. S. 16 at Kensington Road
Brighton, Michigan
ACademy 7-1211

Research grants totaling $124,712.94 have been awarded by the Horace H. Rackham School of Graduate Studies to fifty-eight faculty members of the University of Michigan. Subjects range from a study of suicide and homicide to clinical and experimental studies in neuromuscular disease and research on the National Recovery Administration and the automobile industry. Faculty recipients and their general area of medical research included Health Sciences: Ralph M. Gibson and Richard J. Allen, (communicable disease); Ara G. Paul (pharmacology); George E. Block (surgery); Earl F. Wolfman, Jr. (surgery); Gerald T. Charbeneau (dentistry); Kenneth R. Magee (neurology); Paul W. Willis, III (internal medicine); William H. Beierwaltes (internal medicine); and Roy Patterson (internal medicine).

* * *

Edgar C. Sites, M.D., Port Huron, was honored for his long service to medicine at a dinner meeting recently by fifty area doctors. Presentations and speakers lauded him for his work as organizer and first chief of the Mercy Hospital staff, as a leader in the annual Clinic Days, and as a counselor for many young doctors just entering practice. Among the speakers was Anthony C. Gholz, M.D., president of the St. Clair County Medical Society.

* * *

Manuscripts about goiter studies are sought by the American Goiter Association, which offers the $300 Van Peter Prize Award for 1960. Deadline for the competing essays is January 1, 1960. Full information may be obtained from the American Goiter Association, 149½ Washington Avenue, Albany 10, N. Y.

* * *

Two Michigan doctors will appear as speakers at the 44th Scientific Assembly of the Interstate Postgraduate Medical Association of North America which will be held at the Palmer House, Chicago, November 2-5. Selected to participate on the program are H. Marvin Pollard, M.D., Ann Arbor, and George J. Curry, M.D., Flint. K. L. Crawford, M.D., Kalamazoo, is vice president of the Association.

* * *

John R. Rodger, M.D., Bellaire, was guest speaker at the Michigan Sheriffs Association Convention in Escanaba, July 29. His subject was "Health Hazards of Driving."

* * *

Austin Smith, M.D., Washington, D. C., president of the Pharmaceutical Manufacturers Association, has been re-elected chairman of the World Medical Association. Other officers were renamed and Henry S. McNeil, president, McNeil Laboratories, was elected to the board at the annual meeting of the directors.

* * *

Columbia University Postgraduate Cerebral Palsy Courses for the fall include one for physicians, October 5-23. A total of six courses are planned. Full information about the courses and available scholarships may be obtained from the United Cerebral Palsy Association of Michigan, 106 W. Allegan Street, Lansing.

The Wexford-Missaukee County Medical Society, County Bar Association, and County Dental Society held a joint meeting in Cadillac, July 8, which was attended by over fifty representatives of the three professions. William R. Peterson of Cadillac was Chairman of the very interesting meeting which was addressed by Wm. M. LeFevre, M.D., of Muskegon, on "The Michigan Association of the Professions"; by R. H. Dresser, LL.B., President of the State Bar of Michigan on "Cooperation Among the Professions Pays" and by John C. Cary, LL.B., of Grand Rapids, who spoke on legal questions of interest to Doctors of Medicine and Doctors of Dental Surgery. Among the guests was Milton E. Bachmann, Lansing, Executive Director of the State Bar of Michigan.

* * *

Milton J. Steinhardt, M.D., Detroit, will serve as president of the Michigan Allergy Society for 1959-60. Other officers announced for the new year include Robert G. Lovell, M.D., Ann Arbor, vice-president; Alex S. Friedlaender, M.D., Detroit, secretary, and Hilda Hensel, M.D., Monroe, treasurer.

* * *

Charles H. Sharrer, M.D., of Grosse Pointe Park, was chosen as "Father of the Year" for 1959 by the Central Volunteer Bureau of the Detroit United Community Services. The award recognizes the work done by Doctor Sharrer for the children at the Detroit Lutheran School for the Deaf for the past 30 years.

* * *

Robert K. Whiteley, M.D., was a successful candidate in a two-way contest for a seat on the board of education at Grosse Pointe. The one board directs the educational program for the several Grosse Pointe communities.

* * *

The American Institute of Ultrasonics in Medicine will hold its annual meeting Sept. 2 at the Leamington Hotel, Minneapolis, Minn.

* * *

The Academy of Psychosomatic Medicine will hold its sixth annual meeting October 15-17 at the Sheraton-Cleveland Hotel, Cleveland, Ohio, with major emphasis on the practical every-day office management of psychosomatic problems and emotional disturbances.

* * *

A national conference on clinical anticancer drug research will be held at at the Hotel Statler, Washington, D. C., Nov. 11-12, sponsored by the U. S. Public Health Service's Cancer Chemotherapy National Service Center. About 1,000 physicians and scientists will attend.

* * *

Four Michigan physicians received their Certificates of Fellowship in the American College of Chest Physicians at the annual convocation at Atlantic City in June. The Fellowship certificates were presented to Clair E. Basinger, M.D., Grand Rapids; Abraham Becker, M.D., Detroit; Aran S. Johnson, M.D., Detroit, and Carl O. Ramzy, Jr., M.D., Traverse City.

* * *

Officers have been elected for 1959-60 by the Western Michigan Pediatric Society. Chosen as president was C. L. Hoogerland, M.D., Alma; president-elect, S. Sprigg Jacob, M.D., Lansing; secretary-treasurer, Jerome Webber, M.D., Grand Rapids, secretary-treasurer; and Marshall Feeley, M.D., Benton Harbor, assistant secretary-treasurer.

* * *

Marvin E. Schrock, a second-year student at the University of Michigan Medical School, has been awarded a $500 scholarship by the Allergy Foundation of America. A general university scholar in medicine, Mr. Schrock will do research and clinical work in the field of allergic diseases.

* * *

Full information about three University of Michigan postgraduate courses for this fall may be obtained from John M. Sheldon, M.D., director of the U-M department of postgraduate medicine. Listed for this fall are courses in Clinical Internal Medicine, Thursday afternoons; Clinical Exercises for Practitioners, Wednesday afternoons; and Electrocardiography and Heart Diseases, Tuesday evenings, all at the University Hospital.

* * *

Norman F. Miller, M.D., Ann Arbor, gave the George Kamperman Lecture at the "Wayne Day" meeting of the Michigan Society of Obstetricians and Gynecologists.

Another highlight of the event was the presentation of two new Norman F. Miller awards in the Wayne State University College of Medicine to Rudolph A. Wyatt, M.D., and William A. Jevens, M.D.

* * *

E. R. Jennings, M.D., Detroit, is the new director of laboratories and chief pathologist at Seaside Memorial

Plainwell Sanitarium

PLAINWELL, MICHIGAN

Member American Hospital Association

EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief

Professional care for the nervous and mentally ill.

Telephone MUrray 5-8441



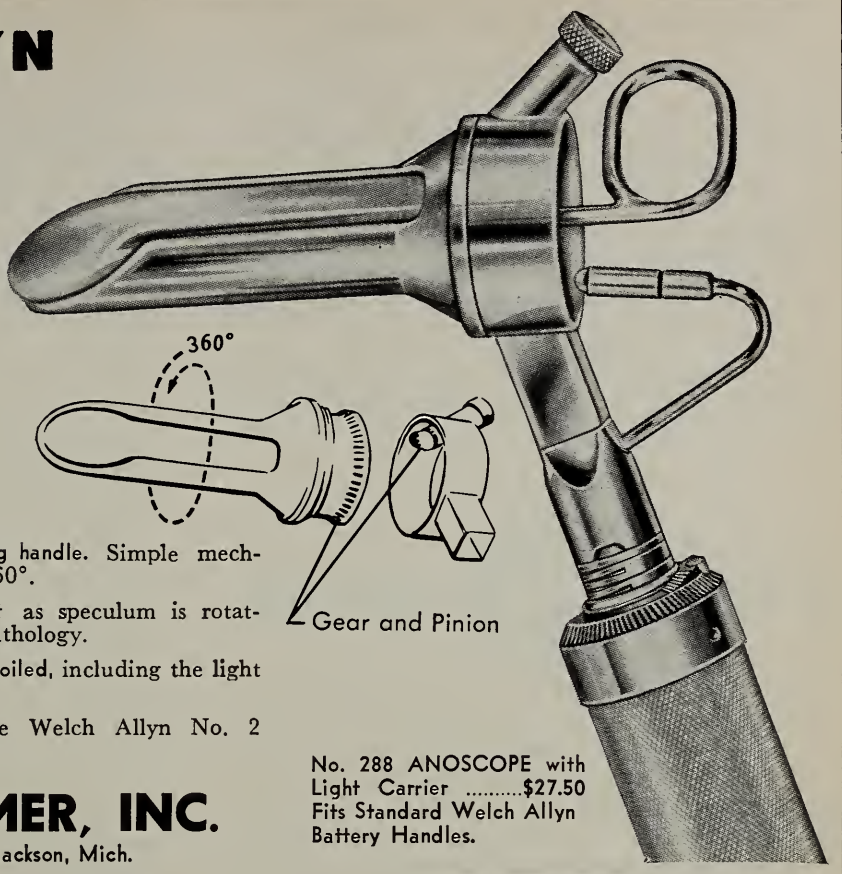
Restful Six-acre Estate Overlooking the Kalamazoo River

WELCH ALLYN
LIGHTS THE WAY

NEW ROTATING ANOSCOPE

Facilitates examination and instrumentation

- Speculum can be rotated without moving handle. Simple mechanism turns speculum through full 360°.
- Orbiculated edges minimize discomfort as speculum is rotated even in the presence of rectal pathology.
- Entire instrument can be autoclaved or boiled, including the light carrier and lamp.
- Brilliant self-illumination with durable Welch Allyn No. 2 lamp.



No. 288 ANOSCOPE with Light Carrier $27.50
Fits Standard Welch Allyn Battery Handles.

NOBLE-BLACKMER, INC.
267 W. Michigan Ave. Jackson, Mich.

Hospital, Long Beach, Calif. He formerly was a professor at Wayne State University and director of pathology at Woman's Hospital, Detroit.

* * *

Wm. J. Burns, MSMS Executive Director, is author of an original article "What Doctors Think of Exhibitors" which was published in *Medical Marketing,* May, 1959.

Mr. Burns was appointed on June 25 by the President's National Committee to serve as a Technical Consultant on Exhibits for the 1960 White House Conference on Children and Youth.

* * *

Medical Television Shows produced by Michigan Health Council in June included the following:

June 7—"Fears of Children"—(Film—"Fears of Children")

June 14—"Multiple Sclerosis"—Mrs. Miriam S. Lewis, M.S.W., Abraham Brickner, M.S.W., and John S. Meyer, M.D., all of Detroit.

June 21—"Career in Nursing"—(Film—"My Cap is my Crown")

June 28—"Diabetes and Summer Camp"—Mrs. Robert W. Woodruff, Dearborn, William E. Rush, M.D., Mrs. Richard Denk, both of St. Clair Shores, Michigan. Katheryn L. O'Connor, M.D., Miss Sarah Jencks and Frank S. Perkin, M.D., all three of Detroit.

MICHIGAN'S FOREMOST FAMILY PHYSICIANS

The Michigan's Foremost Family Physician Award was instituted in 1947 and has been presented to the following physicians:

1947—T. E. DeGurse, M.D.,* Marine City

1948—J. S. DeTar, M.D., Milan

1949—John C. Maxwell, M.D.,* Paw Paw

1950—Lunette Powers, M.D.,* Muskegon

1951—Clayton Willison, M.D.,* Sault Ste. Marie

1952—S. L. Loupee, M.D., Dowagiac

1953—Wm. J. Stapleton, Jr., M.D., Detroit

1954—Duncan J. McColl, M.D., Port Huron

1955—W. H. Winchester, M.D., Flint

1955—J. H. Sherk, M.D.,* Midland (posthumous award)

1956—Ralph G. Cook, M.D., Kalamazoo

1957—Paul Van Riper, M.D., Champion

1958—Fred J. Drolett, M.D., Lansing

---

*Deceased.

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

PEDIATRIC NEUROLOGY. By Stanley S. Lamm, M.D., Clinical Professor of Pediatrics, State University of New York, College of Medicine, New York City; Neurological Consultant, Pediatric Department, Kings Country Hospital (State University Division), Brooklyn, N. Y.; formerly Instructor in Neurology, Long Island College of Medicine, Brooklyn, N. Y.; Director, Cerebral Palsy Clinic, Long Island College Hospital, Brooklyn, N. Y. New York: Landsberger Medical Books, Inc., 1959. Price $12.90.

This book will be helpful to many physicians in that it brings many of the more recently understood entities into the neurological discipline. A few examples: the inborn metabolic errors, the several bases of kernicterus, the present classification of cerebral palsy, and the proper approach to the stutterer in the primary stage.

The author has made a most satisfactory effort at putting a tremendous amount of factual material into very few words. A great many subjects are beautifully covered in the shortest possible way. It is an easy book in which to search out information with a minimum of effort. This makes the book useful to the physician looking for an aid in making a diagnosis. The categories of neurological disease are nicely divided.

As in any text, there are some statements open to question. For instance, "clinically kernicterus accounts for 3 per cent of the cerebral palsied population." Kernicterus is a pathological diagnosis. This statement, as presented is an assumption. The author describes the hair of the Mongol as being coarse and scanty. This is usually a sign found in the cretin and is used to differentiate the cretin from the Mongol. The author states that all Mongolian idiots should be cared for at home during infancy. Many well oriented physicians will not buy this concept. When the discussion concerning how to talk to parents about having more children after they have had a Mongol is presented, the reader wishes the author would tell something of his own method of approaching this problem with parents.

These are really minor criticisms. A student of medicine can pick almost any sentence at random from the book and find the sentence very informative, to the point, and usually brief. If the reader tests the text by taking a disease entity on which he is particularly well-informed, he will find the author up to the challenge. The references usually represent the best authority and are well chosen.

F.J.M.

SCHIZOPHRENIA. By Manfred Sakel, M.D. 334 pages. New York: Philosophical Library, 1958. Price, $5.00.

Dr. Sakel's book is divided into two parts: I. Etiology, Symptomatology, and Psychopathology; II. The Sakel Insulin Shock Treatment. It is not a comprehensive review of schizophrenia, as the title might suggest, nor is it a practical handbook on insulin coma therapy. It is rather as its jacket states, "not only a document of genuine historical importance, but a vivid, permanent record of the thought and accomplishment of a great modern medical man." This reviewer finds in its style a quality of dogmatism and limited tolerance.

This book, then, will have its greatest value to the reader who already has a broad knowledge of schizophrenia and of insulin therapy, but desires to gain Dr. Sakel's vast experience and knowledge of these subjects.

A.J.P.

OBSTETRICS AND GYNECOLOGY, Volume 11, Number 1. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1958. Price, $18.00 per year.

Volume eleven, Number 1, of this official journal of the American College of Obstetricians and Gynecologists begins with a short résumé of the first five years of its existence by Dr. Ralph Reis, editor and one of the founders of the College. During these five years, this journal has come to occupy an important place in the recording of events in obstetrics and gynecology.

It is well written and the editorial board deserves credit for presenting material of merit and interest, particularly from the younger writers who, in the past, have had difficulty getting their papers published in the older journals. Particularly commendable are the articles by Sam Gordon Berkow, M.D., under the title

for a HAPPY HOLIDAY



. . . come to Dearborn. You'll enjoy the many things to do and see—visits to world-famous Henry Ford Museum and Greenfield Village, to fascinating Ford Rotunda. And you'll like living and dining at the Inn, where there's colonial charm with every modern convenience. Write for brochure.

Neighbor of
HENRY FORD MUSEUM, GREENFIELD VILLAGE
. . . where American history comes to life; a vast collection of Americana from time of early settlers to present day and historic homes, shops, stores, etc., from all parts of America.



The Dearborn Inn

135 guest rooms in the Inn and Colonial Guest Homes with TV from $9 single, $13 double, two restaurants, cocktail lounge, all air conditioned. Free Parking. Reservations appreciated.
Phone: LOgan 5-3000
R. D. McLAIN,
General Manager
THE DEARBORN INN
Dearborn, Michigan

"After Office Hours," consisting of intimate interviews with some of the older men who have been prominent in this specialty.

This particular issue contains a very good paper on "Vaginal Carcinoma" by James A. Merrill, M.D., and William T. Bender, M.D., a discussion of "Pheochromocytoma and Pregnancy" by Robert Dean, M.D., and the report on a case of "Bladder Extrophy in Pregnancy" by our own Wm. Coulter, M.D., and M. I. Sabbagh, M.D. There are several other articles of interest.

One would expect that this journal will continue to exercise great influence in obstetrics and gynecology.

L.E.B

HEARING: A HANDBOOK FOR LAYMEN. By Norton Canfield, M.D., Associate Clinical Professor of Otolaryngology, Yale University School of Medicine; President of the Audiology Foundation. Garden City, New York: Doubleday & Company, Inc., 1959. Price, $3.50.

This is a very interesting and instructive pocket-sized book, which goes into very extensive detail of the handicaps and philosophy of hearing loss, the causes and the need for expert advice wherever there is hearing loss, whether in children or adults. The prospects of health in general and in specific cases are also considered. It is a very good review and is written for the laymen. It is also a good reminder for the otologist.

A DOCTOR REMEMBERS. By Edward H. Richardson, M.D., Associate Professor Emeritus of Gynecology, The Johns Hopkins University School of Medicine, Baltimore, Maryland. New York, Washington, Hollywood: Vantage Press, 1959. Price, $3.95.

This autobiography covers a period of forty-two years of very active practice and intensely interesting associations. It is easily readable, covers intimate contacts with Sir William Osler, William Stewart Halstead, William H. Welch and Howard A. Kelly, four great leaders in medicine and surgery of Johns Hopkins University in its formative years. His various experiences are very interestingly told, and the reader enjoys picking up the book for relaxation.

BREAST CANCER. The Second Biennial Louisiana Cancer Conference, New Orleans, January 22-23, 1958. Edited by Albert Segaloff, M.D., Director of Endocrine Research, Alton Ochsner Medical Foundation; Associate Professor of Clinical Medicine, Tulane University School of Medicine. Sponsored by the American Cancer Society, Louisiana Division, Inc. St. Louis: The C. V. Mosby Company, 1958. Price, $5.00.

This book is a summary of a symposium which was organized as a Second Biennial Louisiana Cancer Conference, under the American Cancer Society, Louisiana Division. It approaches the cancer of the breast problem from the basic biological aspect, biology of the carcinoma itself, definitive treatment, and the hormonal effects on the breast cancer.

The basic biology, epidemiological studies, pathology, physiology of breast secretions, viral influences, were all



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.

Laboratory Examinations
Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis
Serology—Kahn and Wassermann

CENTRAL LABORATORY
Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

relief from all
cold symptoms
Tussagesic®
decongestant,
non-narcotic antitussive,
analgetic, expectorant

Each timed-release tablet provides:

Triaminic® ..... 50 mg.
(phenylpropanolamine HCl.....25 mg.
pheniramine maleate .....12.5 mg.
pyrilamine maleate .....12.5 mg.)
Dormethan (brand of dextromethorphan HBr) ..... 30 mg.
Terpin hydrate .....180 mg.
APAP (N-acetyl-p-aminophenol) .....325 mg.

Dosage: One Tussagesic tablet in the morning, mid-afternoon and evening, if needed.

Also, for patients who prefer liquid medication: TUSSAGESIC SUSPENSION.

SMITH-DORSEY • Lincoln, Nebraska
a division of The Wander Company

Malpractice Prophylaxis

AVOID FRATERNIZING IN CLAIMANT ATTORNEYS' ACTIVITIES

Specialized Service makes our doctor safer

THE MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office
George A. Triplett and Richard K. Wind
Representatives
2405 West McNichols Road
Telephone University 2-8064

presented by authorities in their particular field. Definitive treatment included discussions on extended radical operation for carcinoma of the breast, indications for the resection of the internal mammary chain, and radiation therapy in the treatment of breast cancer. Each of these groups were followed by panel discussions.

This book brings the clinician up to date with the most modern concepts as to etiology, pathology, surgical and hormonal treatment of the carcinoma of the breast as we see it today. The conference was then summarized by the author, Dr. Albert Segaloff.

J.M.H.

READINGS IN PSYCHOANALYTIC PSYCHOLOGY. Edited by Morton Levitt, Ph.D., Associate Professor in Psychiatry and Assistant Dean, Wayne State University College of Medicine, Detroit, Michigan. With 24 contributing authors. New York: Appleton-Century-Crofts, Inc., 1959.

This book furnishes the student and practitioner of the behavioral sciences with reliable source material on psychoanalytic psychology contributed by many of its foremost investigators. Its nicely integrated twenty-six chapters report with helpful clarity the fundamental and primary concepts of theoretical and practical aspects of psychoanalysis. Collateral reading lists including over three-hundred titles provide comprehensive coverage of psychoanalytic findings. This work is useful particularly for every medical student and physician. Its reviewer recommends it highly.

J.M.D.

ANATOMY FOR SURGEONS: Volume 3. The Back and Limbs. By W. Henry Hollinshead, Ph.D., Professor of Anatomy, Mayo Foundation, University of Minnesota. Head of the Section of Anatomy, Mayo Clinic, Rochester, Minnesota. With 785 Illustrations. New York: Hoeber-Harper, 1958. Price, $23.50.

This third volume reviews the anatomy of the back and limbs. It differs from the ordinary anatomy book in that it correlates the clinical aspects with the anatomy and gives reasons for various approaches. These are of extreme practical importance in handling many of the surgical conditions encountered in present day practice. It is equally as valuable to the older, experienced surgeon as well as to the beginner. This volume contains excellent illustrations, sketches and summarizing charts. At the end of each division is an extensive bibliography.

This is an excellent reference and deserves a place in the library of any surgeon concerned with extremity or back surgery.

J.M.H.

THE BIRTH OF NORMAL BABIES. By Lyon P. Stearn, M.Sc., Ph.D., D.D.S., F.A.P.H.A., Consultant, Norristown State Hospital, Norristown, Pa.; Consultant, Montgomery Hospital, Norristown, Pa. New York: Twayne Publishers, 1958. Price, $3.95.

This book is concerned with the pregnancies which end in failure. Dr. Stearn has pointed out the importance of one form or another of stress in the early months of pregnancy resulting in miscarriages, stillborn infants or some congenital anomaly. He has disproved the theory

that heredity is responsible for all congenital anomalies and has presented numerous case histories showing where some form of stress (traumatic, physiologic and severe emotional stress) is responsible for the anomaly. The book points out the importance of early prenatal care and methods whereby some forms of stress can be relieved by therapy. The chapter entitled "Ten Commandments of Genesis" gives the author's basis for the prevention of congenital defects in the newborn.

The book is very well written and is of great interest to all practitioners doing obstetrics.

J.R.P.

A DOCTOR DISCUSSES MENOPAUSE. By G. Lombard Kelly, A.B., B.S., MED., M.D., President Emeritus and formerly Professor of Anatomy, Medical College of Georgia; formerly Research Associate in Anatomy, Cornell University Medical School; member American Association of Anatomists; contributor to scientific journals in the fields of physiology and endocrinology. Chicago: The Budlong Press, 1959. Price, $1.50.

A very well-written, easily read treatise on a normal phase in a woman's life cycle. The anatomy and physiological mental conditions are clearly explained and diagrammed. The chapters on exercises and cancer are of special help to the non-professional reader. The book is of special interest to selected patients, as an adjunct to their visit to a doctor's office.

J.R.P.

A CLOSE LOOK AT PARTIAL BLINDNESS

(Continued from Page 1280)

have done your job well. When vision is less than 20/40 or when the two eyes see unequally, the services of an ophthalmologist should be strongly recommended.

This, of course, is not a complete eye examination, but that is not the purpose of this article. I'm interested in establishing a simple routine which you may readily follow and help save 15,000 eyes next year. There are many other eye problems which you may find that require more complete examination, but none of these are frequent nor do they result in an endless number of unnecessarily blind eyes. We simply want you to try three things: (1). obtain a brief history of eye disease in the immediate family, (2). make observations and a quick check of ocular motility and, (3). check visual acuity in each eye (this is a simple procedure for your office assistant after the mother has used the E at home).

Early Treatment Effective

If you, the general practitioner and pediatrician, send us these cases before school age we in turn can show you a very high percentage of "cures." Amblyopia is easy to correct early and impossible to correct later. If it results from a crossed eye, glasses and/or surgery in conjunction with patching, even at the age of one year, are very effective. If the amblyopia, or partial blindness results from a refractive error, glasses and patching alone will restore vision in all cases discovered early. If in contrast, the unilateral loss of vision is not discovered until the child enters first grade, our percentage of good results will be much reduced. Amblyopia soon becomes deep seated and permanent. The extent of possible improvement is inversely proportionate to the length of time the situation has existed. If a child reaches the age of seven or eight years with undetected unilateral visual loss, almost no improvement is possible.

Please remember to help us eliminate partial blindness in Michigan. Next year, one of the partially blind may be your child.



MARY POGUE SCHOOL, Inc.

Founded 1903. Complete facilities for training retarded and epileptic children educationally and socially. Pupils per teacher strictly limited. Excellent educational, physical and occupational therapy programs.

Varied group activities under competent direction on our spacious grounds of 28 acres. Selected movies.

Separate buildings for boys and girls, each with round-the-clock supervision of skilled personnel. Total enrollment 90.

G. H. Marquardt, M.D., *Medical Director*

Barclay J. MacGregor, *Registrar*

26 GENEVA ROAD, WHEATON, ILLINOIS
(near Chicago)

MICHIGAN WOMAN TO HEAD AMA AUXILIARY

(Continued from Page 1332)

in 1951-52. On the National Auxiliary level, she has served as chairman of resolutions for the 1952 and the 1953 Conventions, as chairman of civil defense 1953-55, chairman of revisions in 1957, and North Central Regional Vice-President last year.

A native of Canada, Mrs. Mackersie met her husband, an anesthesiologist, during World War I while working in Ottawa where he was stationed. Dr. and Mrs. Mackersie have a son, a married daughter, and three grandchildren.

A registered parliamentarian, President Mackersie is a member of the National Association of Parliamentarians (chairman for Michigan). National Farm and Garden and the P.T.A. She is past parliamentarian for the Michigan P.T.A., the Detroit P.T.A. Council, and the Michigan Division of the National Farm and Garden. She is chairman of the welfare department of the Michigan Federation of Woman's Clubs and a past director of the Michigan Health Council.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Write: Box 9, 606 Townsend Street, Lansing, Michigan.

LOCATION DESIRED—Dentist, eight years' experience in all phases of dentistry, wishes to relocate in medical building or clinic in lower peninsula. Prefers to rent space. Character references available. Write Box No. 14, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Six-year-old, twelve-room ranch home. Top quality. Two front entrances. Ideal for office-home combination. In small town with no M.D. Located midway between Bay City and Midland. Excellent buy at $34,000. L. C. Hendershot, D.D.S., Box 219, Auburn, Michigan. NOrthfield 2-5421.

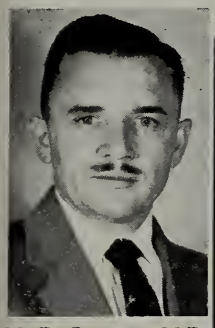
FOR RENT—Office space in building seven years old. Located in Standale, a fast growing suburban shopping section, three miles west of Grand Rapids. Space now set up for dental and doctor's offices, or will remodel. Contact: Nina Meringa, 3986 Lake Michigan Drive, N.W., Grand Rapids 4, Michigan.

WANTED URGENTLY—For pleasant Michigan waterfront town, general practice netting $2,000 plus monthly, a locum tenens or permanent partner to take over solo while owner leaves September 15 for one year training. Open local hospital. OB and minor surgery ability necessary. May alternate practice and training, if desired. Tremendous potential. fastest growing county in state. Wonderful place to live. Open to any terms. Call collect or write: Professional Management, 420 Madison Theater Bldg., Detroit 26, Michigan.

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 SEPTEMBER, 1959 NUMBER 9

Contributors to This Issue


M. D. Bentley, M.D.


S. E. Chapin, M.D.


Ralph S. Green, M.D.


Archie McKinnon, M.A.


John S. Meyer, M.D.


Samuel J. Nichamin, M.D.


A. Hazen Price, M.D.


J. R. Rodger, M.D.


C. H. Ross, M.D.


Frederick C. Swartz, M.D.


Norman Westlund, M.D.

Table of Contents

Problems of Aging — *Charles Sellers, M.D.* 1433
Atherosclerosis in Aging—A New Look — *George S. Fisher, M.D.* 1437
The Problem of Cancer in Aging — *C. Howard Ross, M.D.* 1439
Diabetes and Aging — *Laurence F. Segar, M.D.* 1442
Driving and Aging — *John R. Rodger, M.D.* 1445
Treatment of Emotional Problems in the Aging — *Alexander H. Hirschfeld, M.D.* 1447
Exercise in Aging — *Paul Dudley White, M.D.* 1451
Medicine's Responsibility to the Aging — *A. Hazen Price, M.D.* 1453
The Skin in Aging — *Alice E. Palmer, M.D.* 1455
Carmel Hall — *Mother M. Regina Carmel* 1457
Home Care for the Chronically Ill Geriatric Patient — *Sidney E. Chapin, M.D.* 1463
Kundig Center—A Fresh Approach — *Rev. W. F. Suedkamp* 1464
The Presbyterian Village — *P. C. Gittins, M.D.*, and *Elmer L. Bringard, M.D.* 1466
Medical Education in This Geriatric Age — *Frederick C. Swartz, M.D.* 1468
A Comparison of Sanitariums and Psychiatric Units in General Hospitals — *Ralph S. Green, M.D.* 1474
Present Status of Neurosyphilis in a Large City Hospital — *D. W. Barron, M.D., et al* 1477
Adjunctive Use of Meclizine-Pyridoxine (Bonadoxin) in the Prevention of Preoperative and Postoperative Nausea and Emesis — *M. D. Bentley, M.D.* 1483
Wheezing in Young Infants Associated with Dust Exposure — *Samuel J. Nichamin, M.D.* 1485
School Phobia — *Norman Westlund, M.D.*, and *Archie McKinnon, M.A.* 1489

Editorial:
- Aging Has Values ... 1491
- Michigan's Prepaid Medical Care ... 1491
- MSMS House of Delegates ... 1494
- Medical Publicity ... 1494

President's Page—Swan Song ... 1492
Maternal Mortality Study, 1950-1954 ... 1495
New Building—Second Report ... 1498
Michigan State Medical Society—Midsummer Session of The Council, July 16, 17, 1959 ... 1501
Michigan's Department of Health ... 1504
In Memoriam ... 1508
Communications ... 1510
News Medical ... 1512
"C. A. Conshus, M.D." ... 1529
The Doctor's Library ... 1533

Heart Beats ... 1378
Report of the Council of MSMS on the Conference on Aging ... 1380
Medical Meetings and Clinic Days ... 1380
AMA Washington Letter ... 1388
Editorial Comment ... 1390

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 SEPTEMBER, 1959 NUMBER 9

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. ALLEN PAYNE, M.D.....Grand Rapids

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1958-1959

President.....G. B. SALTONSTALL, M.D.....Charlevoix
President-Elect.....M. A. DARLING, M.D.....Detroit
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....K. H. JOHNSON, M.D.....Lansing
Vice Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek
Assistant Editor.....L. J. BAILEY, M.D.....Detroit

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman*, Calumet
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		Term Expires
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
RALPH W. SHOOK, M.D.*	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M. D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.†	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1959
G. B. SALTONSTALL, M.D.	*President*		Charlevoix
M. A. DARLING, M.D.	*President-Elect*		Detroit
K. H. JOHNSON, M.D.	*Speaker*		Lansing
J. J. LIGHTBODY, M.D.	*Vice Speaker*		Detroit
D. BRUCE WILEY, M.D.	*Secretary*		Utica
W. A. HYLAND, M.D.	*Treasurer*		Grand Rapids
G. W. SLAGLE, M.D.	*Past President*		Battle Creek

†Dr. Wiley resigned August 19, 1959.

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.*.....Chairman, Finance Committee
K. H. JOHNSON, M.D.....Speaker
J. J. LIGHTBODY, M.D.....Vice Speaker
G. B. SALTONSTALL, M.D.....President
M. A. DARLING, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

*Dr. Shook died August 9, 1959.

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
J. F. Wenzel, M.D.....Detroit
Chairman
Ralph R. Cooper, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D.....Detroit
Secretary

Gynecology and Obstetrics
L. S. Griffith, M.D.....Grand Rapids
Chairman
Warren R. Moore, M.D.....Detroit
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
G. E. Hause, M.D.....Detroit
Chairman
H. T. Knobloch, M.D.....Bay City
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Ann Arbor
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
H. V. Morley.....Detroit
Chairman
A. W. Bohne, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., *Chairman*, Grand Rapids.....1959
W. W. Babcock, M.D., Detroit.....1959
J. S. DeTar, M.D., Milan.....1959
C. I. Owen, M.D., Detroit.....1959
W. D. Barrett, M.D., Detroit.....1960
R. L. Novy, M.D., Detroit.....1960
G. W. Slagle, M.D., Battle Creek.....1960

Alternates

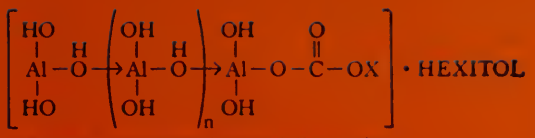
O. J. Johnson, M.D., Bay City.....1959
E. F. Sladek, M.D., Traverse City.....1959
Wm. Bromme, M.D., Detroit.....1960
L. R. Leader, M.D., Detroit.....1960
Ralph W. Shook, M.D., Kalamazoo.....1960

A. M. A. Surgical Section Delegate

G. C. Penberthy, M.D.*.....Detroit

*Dr. Penberthy died September 2, 1959.

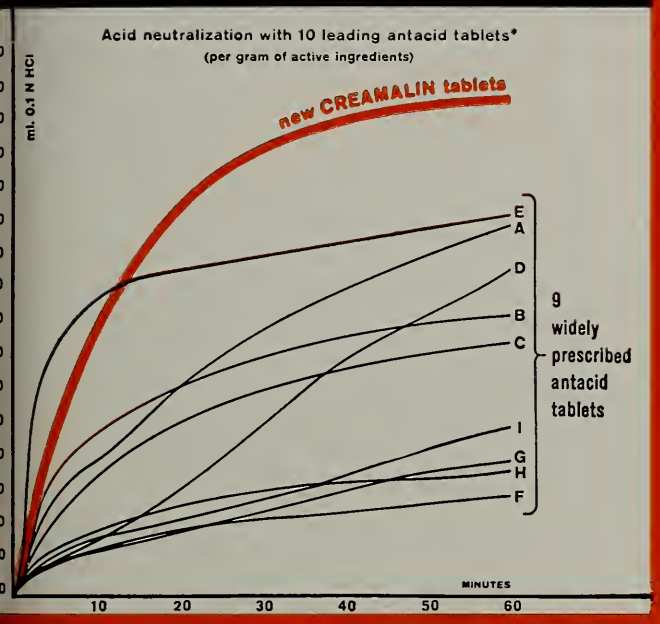
new high in effectiveness
nd palatability



n is at least 1 and averages less than 6. X is a cation.

CREAMALIN NEUTRALIZES *MORE* ACID *FASTER*

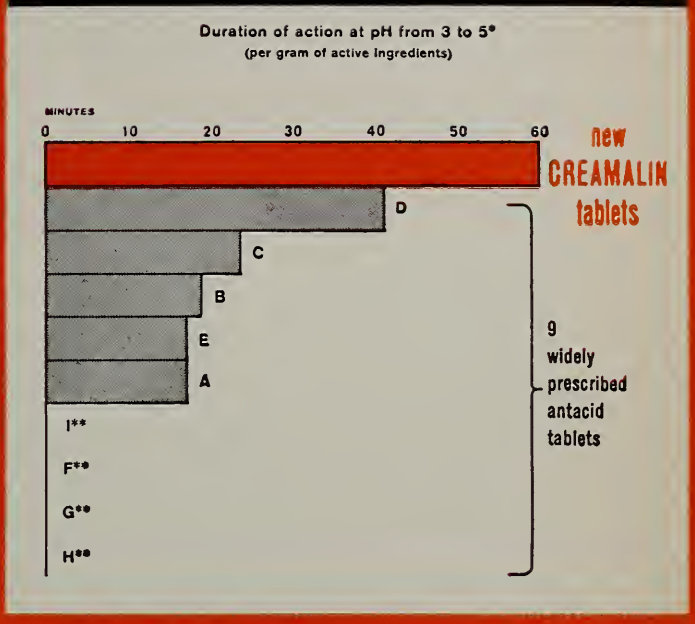
Quicker Relief • Greater Relief



were powdered and suspended in distilled water in a constant temperature (37°C) equipped with mechanical stirrer and pH electrodes. Hydrochloric added as needed to maintain pH at 3.5. Volume of acid required was d at frequent intervals for one hour.

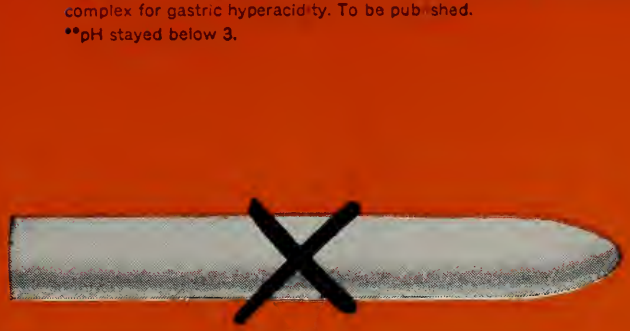
CREAMALIN NEUTRALIZES *MORE* ACID *LONGER*

More Lasting Relief



*Hinkel, E. T., Jr., Fisher, and Tainter, M. L.: A new highly reactive aluminum hydroxide complex for gastric hyperacidity. To be published.
**pH stayed below 3.





No chalky taste. New CREAMALIN tablets are not chalky, gritty, rough or dry. They are highly palatable, soft, smooth, easy to chew, mint flavored.

• NO ACID REBOUND • NO CONSTIPATION
• NO SYSTEMIC EFFECT

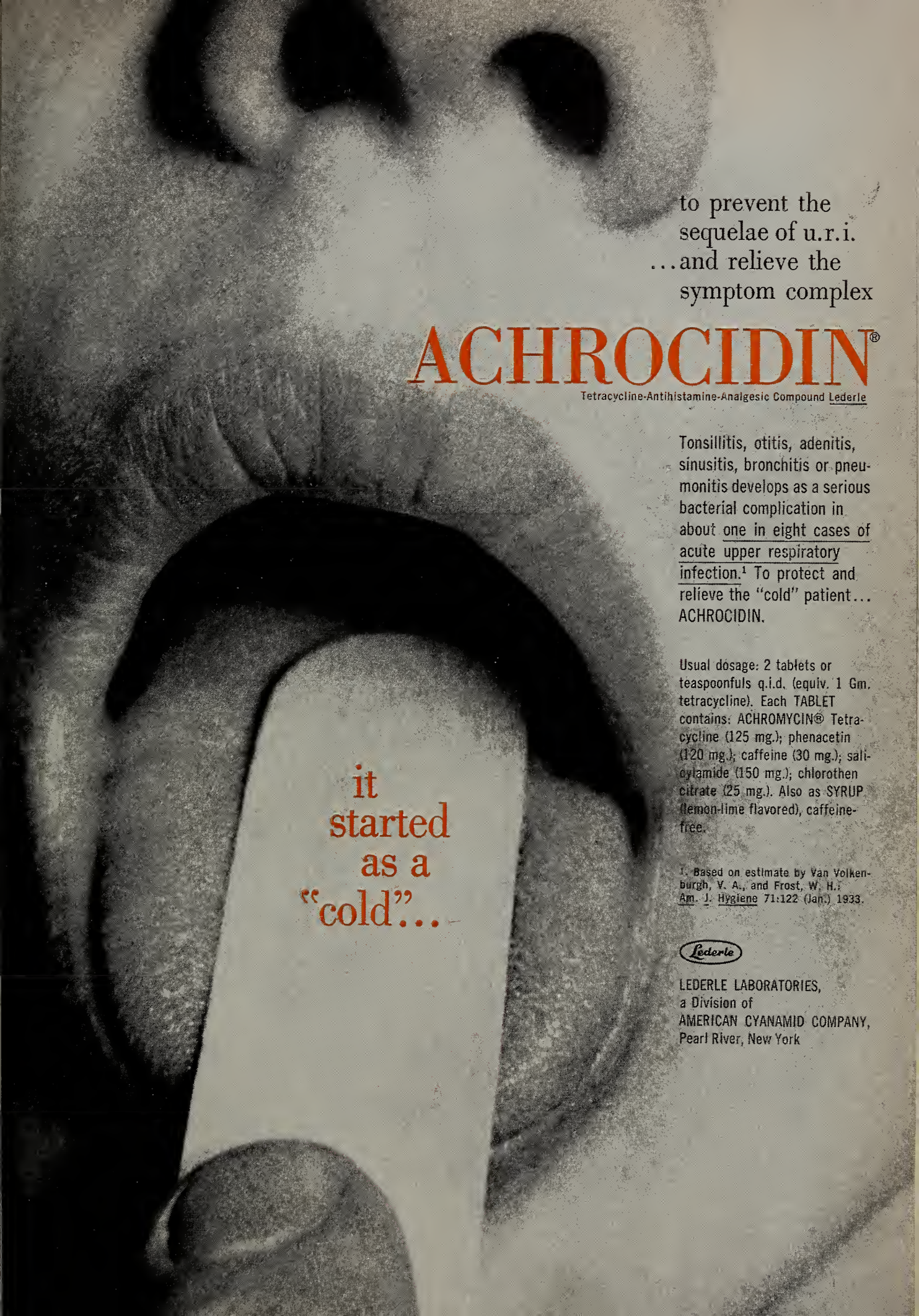
Adult Dosage: Gastric hyperacidity: 2 to 4 tablets as necessary. Peptic ulcer or gastritis: 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed with water or milk, or allowed to dissolve in the mouth.

Supplied: Bottles of 50, 100, 200 and 1000.

Winthrop LABORATORIES • NEW YORK 18, NEW YORK

COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY
ALLEGAN	A. P. Brachman, M.D., Allegan	H. E. Schneiter, M.D., 111 Locust St., Allegan
ALPENA-ALCONA-PRESQUE ISLE	S. L. Cohn, M.D., Alpena	Harold Kessler, M.D., 312 E. Chisholm, Alpena
BARRY	T. W. Myers, M.D., Nashville	E. L. Phelps, M.D., 118 W. Walnut St., Hastings
BAY-ARENAC-IOSCO	G. L. Hagelshaw, M.D., Bay City	H. T. Knobloch, M.D., 1102 Columbus Ave., Bay City
BERRIEN	F. A. Kennedy, M.D., Benton Harbor	R. L. Landgraf, M.D., 122 Grant St., Niles
BRANCH	H. C. Mitchell, M.D., Coldwater	J. C. Heffelfinger, M.D., 292 E. Chicago, Coldwater
CALHOUN	D. L. Finch, M.D., Battle Creek	S. A. Yannitelli, M.D., 1331 W. Michigan Ave., Battle Creek
CASS	J. K. Hickman, M.D., Dowagiac	G. E. Loupee, M.D., 110 W. Division, Dowagiac
CHIPPEWA-MACKINAC	E. S. Rhind, M.D., Sault Ste. Marie	T. B. Mackie, M.D., 300 Court St., Sault Ste. Marie
CLINTON	A. C. Henthorn, M.D., St. Johns	B. C. Cook, M.D., Westphalia
DELTA-SCHOOLCRAFT	O. S. Hult, M.D., Gladstone	N. L. Lindquist, M.D., 205 S. Tenth St., Escanaba
DICKINSON-IRON	D. T. Anderson, M.D., Iron Mountain	R. D. Cecconi, M.D., 110 W. "B" St., Iron Mountain
EATON	A. W. Myers, M.D., Potterville	J. L. Riley, M.D., 201½ S. Cochran, Charlotte
GENESEE	J. E. Livesay, M.D., Flint	J. B. Rowe, M.D., 202 Paterson Bldg., Flint
GOGEBIC	D. L. Davidson, M.D., Bessemer	W. H. Wacek, M.D., Ironwood
GRAND TRAVERSE-LEELANAU-BENZIE	J. W. Hall, M.D., Traverse City	W. W. Cline, M.D., 436 W. Front St., Traverse City
GRATIOT-ISABELLA-CLARE	L. R. Wickert, M.D., Mt. Pleasant	P. H. Ringer, Jr., M.D., 314 S. Brown, Mt. Pleasant
HILLSDALE	J. A. MacNeal, M.D., Hillsdale	F. M. Wessels, M.D., Hillsdale
HOUGHTON-BARAGA-KEWEENAW	F. E. Kolb, M.D., Calumet	M. S. Williams, M.D., 1412 E. Houghton, Houghton
HURON	P. R. Turner, M.D., Harbor Beach	R. C. Dixon, M.D., Pigeon
INGHAM	H. W. Harris, M.D., Lansing	W. D. Cheney, M.D., 1215 E. Michigan, Lansing
IONIA-MONTCALM	J. G. Haarer, M.D., Grand Rapids	C. E. Stevens, M.D., Greenville
JACKSON	J. B. Meads, M.D., Jackson	H. W. Porter, M.D., 505 Wildwood, Jackson
KALAMAZOO	J. G. Malone, M.D., Kalamazoo	R. D. Warnke, M.D., 909 Am. Nat'l Bank Bldg., Kalamazoo
KENT	J. W. Logie, M.D., Grand Rapids	G. A. Mulder, M.D., 26 Sheldon Ave. S.E., Grand Rapids
LAPEER	T. K. Buchanan, M.D., Imlay City	J. R. Doty, M.D., 315 Clay St., Lapeer
LENAWEE	J. W. Berghuis, M.D., Adrian	R. T. Hammel, M.D., 401 E. Chicago Blvd., Tecumseh
LIVINGSTON	R. F. Hauer, M.D., Fowlerville	R. M. Duffy, M.D., 250 E. Main St., Pinckney
LUCE	R. E. Gibson, M.D., Newberry	R. P. Hicks, M.D., 210 W. John St., Newberry
MACOMB	D. L. Rousseau, M.D., Mt. Clemens	Peter V. Kane, M.D., 67 Cass, Mt. Clemens
MANISTEE	Ruth E. Lalime, M.D., Bear Lake	K. C. Rosenow, M.D., 503 Seventh St., Manistee
MARQUETTE-ALGER	L. W. Howe, M.D., Marquette	Louis Rosenbaum, M.D., 540 E. Division, Ishpeming
MASON	J. R. Carney, M.D., Ludington	A. F. Boon, M.D., 203 N. Ferry St., Ludington
MECOSTA-OSCEOLA-LAKE	J. L. Tyson, M.D., Big Rapids	J. E. Walters, M.D., 1014 S. State St., Big Rapids
MENOMINEE	Arthur Gonty, M.D., Menominee	G. H. Hopson, 100 Tenth St., Menominee
MIDLAND	J. A. Bernier, M.D., Sanford	B. B. Holder, M.D., Dow Chemical Co., Midland
MONROE	W. A. Meier, M.D., Monroe	R. A. Frary, M.D., 423 E. Elm, Monroe
MUSKEGON	L. L. Loder, M.D., Muskegon	H. C. Tellman, M.D., 706 Hackley Union Bank Bldg., Muskegon
NEWAYGO	Jess DeYoung, M.D., Fremont	R. W. Emerick, M.D., Gerber Mem. Hosp., Fremont
NORTH CENTRAL	L. F. Hayes, M.D., Gaylord	Paul Dosch, M.D., Grayling
NORTHERN MICHIGAN	R. G. Martin, M.D., Charlevoix	T. R. Kirk, M.D., Burns Clinic, Petoskey
OAKLAND	R. R. Wessels, M.D., Birmingham	J. A. Read, M.D., 175 E. Hickory Grove Rd., Bloomfield Hills
OCEANA	W. G. Robinson, M.D., Hart	W. G. Robinson, M.D., 219 State St., Hart
ONTONAGON	Ross Vilardo, M.D., White Pine	W. F. Strong, M.D., Ontonagon
OTTAWA	W. S. Kuipers, M.D., Holland	P. J. DeVries, M.D., 214 Washington, Grand Haven
SAGINAW	D. V. Sargent, M.D., Saginaw	A. B. Thompson, M.D., 2144 Ottawa, Saginaw
ST. CLAIR	A. C. Gholz, M.D., Port Huron	G. E. Mohney, M.D., 311 Pine St., Port Huron
ST. JOSEPH	J. H. O'Dell, M.D., Three Rivers	G. E. Porter, M.D., 226 East St., Three Rivers
SANILAC	E. W. Blanchard, M.D., Deckerville	M. H. Jayson, M.D., Marlette
SHIAWASSEE	N. F. Bach, M.D., Owosso	J. F. MacGregor, M.D., 113 E. Williams, Owosso
TUSCOLA	L. L. Savage, M.D., Caro	E. N. Elmendorf, M.D., Vassar
VAN BUREN	J. A. Kleber, M.D., South Haven	A. E. Parks, M.D., Lawton
WASHTENAW	D. A. Campbell, M.D., Ann Arbor	G. H. Bauer, M.D., 2015 Manchester Rd., Ann Arbor
WAYNE	M. R. Weed, M.D., Detroit	H. M. Fuller, M.D., 1010 Antietam, Detroit
WEXFORD-MISSAUKEE	M. D. Bentley, M.D., Cadillac	Benjamin Koepke, M.D., McBain



to prevent the sequelae of u.r.i. ...and relieve the symptom complex

ACHROCIDIN®

Tetracycline-Antihistamine-Analgesic Compound Lederle

Tonsillitis, otitis, adenitis, sinusitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.[1] To protect and relieve the "cold" patient... ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP (lemon-lime flavored), caffeine-free.

1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933.

Lederle

LEDERLE LABORATORIES,
a Division of
AMERICAN CYANAMID COMPANY,
Pearl River, New York

Heart Beats

"HEART IN INDUSTRY" Conference Set

"Can the cardiac work?" will be the theme of the third annual rehabilitation conference of the Michigan Heart Association. The day-long conference, Friday, November 13, will be at the new McGregor Memorial Center on the campus of Wayne State University.

The conference will open at 9 A.M. for registration and coffee. The formal program will begin at 10 A.M. with a keynote address and a symposium. Outstanding authorities will discuss problems in the medical, legal, insurance, employment and rehabilitation fields related to the cardiac patient in industry.

After luncheon, panels, one for each topic of the morning session symposium, will enlarge on these topics through group discussion.

Sidney E. Chapin, M.D., is chairman of the conference planning committee.

Applications for a Grant-in-Aid for the academic year 1960-1961 will be accepted through December 15, 1959. The necessary application form may be obtained from the: Medical Director, Michigan Heart Association, Doctors Bldg., 3919 John R, Detroit 1, Michigan.

CLINICAL SPEAKERS BUREAU

The Michigan Heart Association provides clinical programs for county medical society meetings and component unit meetings of the Michigan Academy of General Practice. A "wet clinic" is held in the afternoon prior to the meeting to provide informal case discussion as well as the usual didactic lecture.

Leading clinicians, expenses paid by MHA, can be secured by corresponding with the Medical Director of the Michigan Heart Association.

HOMEMAKER REHABILITATION PROGRAM CHANGED

The "Heart of the Home" classes in housework simplification presented in co-operation with Michigan State University will be modified by a greater emphasis on body mechanics. The new two class series will include discussion and demonstration of sit-down work, work levels and selection and use of household equipment in the first class and kitchen layout, work centers, storage arrangements and application of work-simplification principles to specific jobs in the second.

The classes presented through Wayne State University and Western Michigan University will continue to offer four class series as in former years.

The free classes are offered in Michigan communities for the benefit of homemakers with limitations of time, energy or physical capacity. *No medical advice is given in the classes.* Physicians are urged to refer patients who may benefit from the classes. Class series will be conducted in the following communities beginning in the month indicated:

September: Benton Harbor, Detroit, Grand Haven, Milford

October: Albion, Dearborn, Detroit, Dowagiac, Marquette, Monroe, Oak Park, Sturgis, Trenton

November: Alcona County, Alpena, Hastings, Sault Ste. Marie

Definite schedules may be obtained from the Michigan Heart Association.

"MICHIGAN HEART DAY," February 13, 1960

The annual meeting of members of the Michigan Heart Association will be expanded to a full day of activity. Saturday, February 13, 1960, has been selected for the meeting at the Statler-Hilton Hotel in Detroit. Lay and scientific sessions will run concurrently in the morning and afternoon. Luncheon, a business meeting, a tea and dinner will round out the schedule.

Among the scientific session guests will be Samuel Levine, M.D., Boston, speaking on coronary artery disease and Thomas Durant, M.D., Philadelphia, speaking on congestive heart failure.

Speaking at lay member sessions will be Louis Katz, M.D., Chicago, and Ancel Keys, Ph.D., and Mrs. Keys from Minneapolis.

The Michigan Heart Association will continue to arrange the scientific session on heart disease for the Michigan Clinical Institute as in the past, but "Heart Day" will replace the annual dinner-meeting which in former years has been associated with the Institute.



August isn't the only hay fever month* ... and there is no seasonal limit on the antiallergic action of Chlor-Trimeton® Repetabs® 8 or 12 mg.

safest, best tolerated, for both seasonal and nonseasonal allergies
the most prescribed antihistamine in the United States

Bottles of 100 and 1000.
SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

**in every month of the year there are allergenic pollens thriving in some part of the United States*

SYMBOL OF THE ONE-DOSE CONVENIENCE YOU WANT FOR YOUR PATIENT

• PROMPT REPETAB RELIEF • LASTS ALL DAY OR NIGHT

Schering

CTM-J-1239

Report to The Council of MSMS on the Conference of Aging

I would like to report to you the various things which have happened in the Field of Aging during the past year—as it affects the Michigan State Medical Society and its relationship to the AMA Committee on Aging.

Last summer (1958), you appointed Drs. Frederick C. Swartz, A. H. Hirschfeld, and Hazen Price, as MSMS representatives at the AMA planning conference in the Field of Aging held in Chicago on September 13-14, 1958. We all attended and came away with a new insight and enthusiasm for the many problems of our aging population.

Basic research, personal and social adjustment were well presented, together with a complete coverage of all of the activities of the various national groups interested in aging. The challenge to the medical profession was outlined by several members of the AMA Committee on Aging in a series of excellent presentations. Great stress was placed on health maintenance through proper diet, physical and mental activity. Community obligations, the physician's responsibility to the older patient, and methods of financing health care for the aged were themes which created a great deal of discussion at all the sessions. We all felt this conference was well worthwhile.

At the March 4, 1959, meeting of the State Geriatrics Committee, initial steps were taken for the formation of the Michigan Joint Council to Improve the Health Care of the Aged. Your chairman was asked to call a meeting of representatives from the MSMS, Michigan Hospital Association, Michigan Dental Association, and the Michigan Nursing Home Association. This was done on May 27, 1959, an a Michigan Joint Council was organized with three designated representatives from each of the above organizations present. The organization of such state councils was encouraged in a letter from the Committee on Aging of the AMA. It was felt that much more could be accomplished through the combined efforts of these four groups than by each working separately. Preliminary suggestions for combined action were discussed but definite plans delayed until after the first national conference of the Joint Council, which was held in Washington, June 12-15, 1959.

Your three representatives, Drs. Swartz, Hirschfeld, and Price, were all present and came away with lots of ideas and plans for our Michigan Joint Council, which met again in Lansing on July 9, 1959. An additional report will be found in the minutes of this meeting.

A. Hazen Price, M.D.

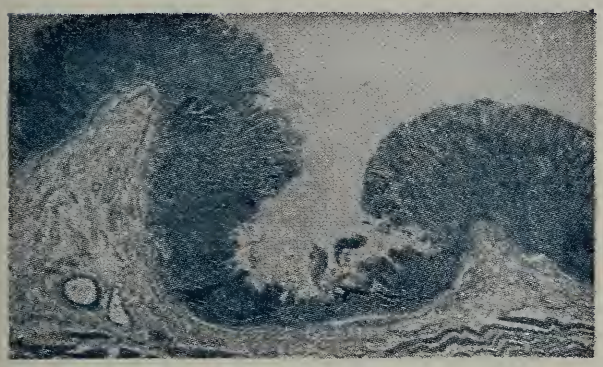
MEDICAL MEETINGS AND CLINIC DAYS

1959

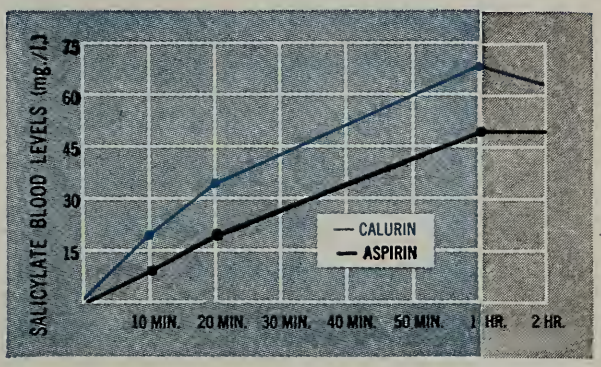
Sept. 27-Oct. 2	MSMS Ninety-Fourth Annual Session	Grand Rapids
October 1	American Cancer Society, Michigan Division, District VI Workshop	Leland
October 7	American Cancer Society, Michigan Division, District V Workshop	Flint
October 15-17	University of Michigan Triennial Medical Alumni Reunion	Ann Arbor
October 21	American Cancer Society, Michigan Division, District III Workshop	Grand Rapids
October 29-31	Divisional Meeting, American Psychiatric Association	Detroit
October 29	Michigan Regional Rural Health Conference	Marquette
November 3	American Cancer Society, Michigan Division, District II Workshop	Adrian
November 5	Michigan Regional Rural Health Conference	Kalamazoo
November 11-12	Michigan Academy of General Practice Post graduate Clinic	Detroit
November 12	Michigan Regional Rural Health Conference	Mt. Pleasant
November 19	Michigan Regional Rural Health Conference	Detroit
December 1-4	American Medical Clinical Session	Dallas, Tex.

CALURIN*

STABLE SOLUBLE CALCIUM-ACETYLSALICYLATE-CARBAMIDE



Particle-induced ulceration — section through lesion found in gastrectomy specimen. An aspirin particle was found firmly imbedded in this undermined erosion. Such lesions may be associated with the relative insolubility of aspirin, which remains in particulate form after dispersion in gastric contents.



Calurin, being freely soluble, is promptly available for absorption into the systemic circulation. Salicylate blood levels in 12 subjects receiving both Calurin and plain aspirin were found to rise more than twice as high within ten minutes following Calurin. Also, these levels persisted higher for at least two hours.[11]

CALURIN is the aspirin of choice, especially when high-dosage, long-term therapy is indicated:

1. High solubility forestalls gastric irritation or damage. This advantage is of special importance in arthritis and other conditions requiring high-dosage, long-term therapy.
2. Produces high salicylate blood levels rapidly for prompt analgesic, anti-pyretic, anti-arthritic effect.
3. Sodium-free — for safer long-term therapy.
4. Flavored: can be chewed or dissolved in the mouth without water if desired — an advantage for patients requiring aspirin administration during the night and for pediatric patients.

Dosage: Each tablet of Calurin is equivalent to 300 mg. (5 gr.) of acetylsalicylic acid. For relief of pain and fever in adult patients, the usual dose of Calurin is 1 to 3 tablets every 4 hours, as needed; in arthritic states, 2 or 3 tablets 3 or 4 times daily; in rheumatic fever, 3 to 5 tablets 4 or 5 times daily. For children over 6 years, the usual dose is 1 tablet every 4 hours; for children 3 to 6 years, ½ tablet every 4 hours, as required. Not recommended for children under 3.

REFERENCES: 1. Waterson, A. P.: Aspirin and gastric haemorrhage, Brit. M. J. 2:1531, 1955. 2. Douthwaite, A. H., and Lintott, G. A. M.: Gastroscopic observation of the effect of aspirin and certain other substances on the stomach, Lancet 2:1222, 1938. 3. Editorial Comments: The effect of acetylsalicylic acid (aspirin) on the gastric mucosa, Canad. M. A. J. 80:47, 1959. 4. Muir, A., and Cossar, I. A.: Aspirin and ulcer, Brit. M. J. 2:7, 1955. 5. Muir, A., and Cossar, I. A.: Aspirin and gastric haemorrhage, Lancet 1:539, 1959. 6. Schneider, E. M.: Aspirin as a gastric irritant, Gastroenterology 33:616, 1957. 7. Bayles, T. B., and Tenckhoff, H.: Salicylate therapy in rheumatic diseases, Scientific Exhibit, Ann. Mtg. A. M. A., San Francisco, Calif., June, 1958. 8. Batterman, R. C.: Comparison of buffered and unbuffered acetylsalicylic acid, New Eng. J. M. 258:213, 1958. 9. Cronk, G. A.: Laboratory and clinical studies with buffered and nonbuffered acetylsalicylic acid, New Eng. J. M. 258:219, 1958. 10. Editorial: Aspirin plain and buffered, Brit. M. J. 1:349, 1959. 11. Smith, P. K.: Plasma concentration of salicylate after the administration of acetylsalicylic acid or calcium acetylsalicylate to human subjects, Report submitted to Smith-Dorsey from Dept. of Pharmacology, Geo. Washington Univ. School of Medicine, Washington, D. C., Sept. 5, 1958.

*TRADEMARK

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

AMA Washington Letter

THE MONTH IN WASHINGTON

The House Ways and Means Committee has put aside until next year the so-called Forand Bill which is opposed vigorously by the medical profession.

But supporters of the legislation have made clear that they will press for action by Congress next year when politics will be paramount because of the presidential and Congressional elections in November.

The Ways and Means Committee took no action on the legislation after five days of hearings highlighted by the Eisenhower Administration lining up with the medical profession in opposition to it.

Arthur S. Flemming, Secretary of Health, Education and Welfare, told the committee that "it would be very unwise" to enact such a bill. He warned of "far-reaching and irrevocable consequences." It would freeze health coverage of the aged "in a vast and uniform government system" and would mark the beginning of the end of voluntary health insurance for old persons, he said.

Secretary Flemming later promised to report to Congress early next year on possible alternatives, including Federal subsidies to private carriers of health insurance for the aged. But he took no position on any of the alternatives for the time being.

Summing up the hearings, Dr. F. J. L. Blasingame, Executive Vice President of the AMA, said:

"It was shown that it would be most unfortunate for the federal government to move in for political reasons and attempt in a compulsory fashion to solve by legislation problems which are being thoughtfully considered at the state and local level by the medical profession and other dedicated members of the health team."

Main support for the bill, which was sponsored by Rep. Aime J. Forand (D., R.I.), comes from organized labor. The legislation would increase federal Social Security taxes to finance hospital, surgical and nursing home care for Social Security beneficiaries.

Although this bill has been shelved for the time being by the House Committee, the problems of the aged are being studied by a Senate Subcommittee headed by Sen. Pat McNamara (D., Mich.). The Subcommittee on Problems of the Aged and Aging of the Senate Committee on Labor and Public Welfare has held public hearings intermittently in Washington. It also planned to hold hearings in various other cities.

In his second appearance before the Senate Subcommittee, Dr. Frederick C. Swartz, Chairman of the AMA's Committee on Aging, reported that state and local medical associations "have moved promptly" to make the AMA's six-point "positive health program" for the aged "an effective and workable instrument."

Dr. Swartz said that the problem of financing health services for the aged is "a temporary, not a permanent one" because "each year, more and more of the Americans who are reaching sixty-five are covered" by voluntary insurance.

* * *

Democrats in Congress cut back their housing program further after President Eisenhower vetoed a $1.4 billion bill. Starting with a $2.1 billion program, Democrats came down to the $1.4 billion figure in an effort to avoid a veto although it was a more expensive program than Mr. Eisenhower wanted.

After the President vetoed this bill anyway, Democrats came up with a $1 billion bill which retained three provisions of interest to the medical profession.

They would (1) provide construction loan guarantees by the Federal Housing Administration of up to 75 per cent of the cost of proprietary nursing homes; (2) authorize $25 million in direct loans for construction of housing for interns and nurses, and (3) authorize a $50 million revolving fund for direct loans to help private nonprofit corporations build rental housing for the elderly.

* * *

Congress voted a compromise $400 million appropriation for medical research. The amount was about $80 million less than approved by the Senate, but was more than $100 million above the Eisenhower Administration's request for the National Institutes of Health.

The allotments for research in specific fields included: cancer, $91 million; mental health, $68 million; heart, $62 million; arthritis, $47 million; neurology, $41 million; allergy, $34 million.

Pancoast tumors are inaccessible to bronchoscopic biopsy, but may be identified by cytological examination.

* * *

Fifty grams of radium are being assembled by Roosevelt Hospital, New York City, in a special bomb so constructed that the point of greatest intensity will be 10 centimeters beneath the skin surface.



in the depressed, unhappy patient

PROMPTLY IMPROVES MOOD

without excitation

- **Acts fast to relieve depression and its common symptoms:** sadness, crying, anorexia, listlessness, irritability, rumination, and insomnia.
- **Restores normal sleep**—without hang-over or depressive aftereffects. Usually eliminates need for sedative-hypnotics.

EFFICACY AND SAFETY CONFIRMED IN OVER 3,000 DOCUMENTED CASE HISTORIES.[1, 2, 3]



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each light-pink, scored tablet contains 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

References:
1. Alexander, L.: J.A.M.A. 166:1019, March 1, 1958.
2. Current personal communications; in the files of Wallace Laboratories.
3. Pennington, V.M.: Am. J. Psychiat. 115:250, Sept. 1958.

for depression

▲Deprol▲†

®WALLACE LABORATORIES, *New Brunswick, N. J.*

†TRADE-MARK

CD-9050

Editorial Comment

NEEDED RELIEF FOR THE ELDERLY

Yes, business is good—even to the point of promising to balance President Eisenhower's $77 billion budget, if the trend holds. But continuing high prices mean only further deprivation for the nation's aged, whose plight calls for prompt attention.

The thinking of depression days guided those who set up today's social security legislation. The idea was to retire the elders and give more jobs to young men, and so it was that the present regulations were adopted. These provide that any person between 65 and 72 entitled to old-age or survivor benefits under the social security law loses those benefits if he or she earns more than $1,200 a year.

Sen. Joseph S. Clark, Jr., of Pennsylvania has introduced legislation seeking to quit penalizing old folks who have the ability and energy to keep on working. Under his bill, persons who earned more than $1,200 a year after age 65 wouldn't lose their entire social security benefit; instead they would be paid a higher benefit through retirement increment, after their eventual retirement. At age 72 persons continuing to work would receive full benefits, as under the present law, but at a rate 28 per cent higher.

We still have many unemployed, but it is likely that the fortunes of these people cannot be materially assisted by continuing to impose hardships on older persons simply because a generation-old law hasn't been brought up to date. The Clark legislation is the welcome kind that helps people to help themselves, but without extra cost to the nation.—*B. C. Enquirer-News,* May 21, 1959.

BLUE CROSS LOOKS TO THE 65-AND-OVERS

Blue Cross finally has developed a plan to provide health insurance for persons not already enrolled before reaching the age of 65.

Its provisions submitted to the State Insurance Department are somewhat rigorous as they apply to subscription requirements and costs. They call for individual policies costing $8.47 a month. If an individual's income does not exceed $2,500, the Blue Shield payments provided will be accepted as the full fee by participating physicians.

In effect this means that an elderly couple whose income is not more than about $200 a month and who will be paying $16.94 in health insurance premiums would be the only subscribers to be free from higher-than-minimum doctor fees. The income cutoff point may have been set too low by Blue Shield's participating physicians.

The cost of the Blue Cross hospitalization appears high, but in offering coverage to the elderly, who are naturally inclined toward increasing illness, perhaps this is to be expected.

In years to come, the numbers already carrying regular hospitalization and health insurance when they reach 65 may largely obviate the need for a special policy for the elderly.

But, until that time, the need for protection for the elderly is great. Blue Cross deserves credit for offering to meet the need. If the plan's details are proper, the State Insurance Department should give its approval swiftly.—*Detroit Free Press,* August 3, 1959.

DETROIT'S HEALTH: TWO ASPECTS

Thoughtful public attention during the past week in Detroit has been focused upon two major matters which unite under the general category of health.

The events are the ouster of the Michigan Cancer Foundation from the American Cancer Society and the introduction of an over-65 hospital-medical plan by the Blue Cross-Blue Shield.

By ultimatum, the national cancer association gave its local affiliate an order to quit Detroit's United Foundation and conduct its own fund-raising campaign.

Whatever the merits of the ACS, the Michigan Cancer Foundation made the only reasonable decision. It stayed with the UF and accepted expulsion from the American Cancer Society.

In the battle against cancer, the Michigan Foundation gets better financial support, at less administrative costs, than it ever did or could in an independent fund drive.

In the field of public education and public service, The Michigan Cancer Foundation has done its work admirably and can so continue—can perhaps do far better when relieved of the $400,000 paid annually from the Wayne-Macomb-Oakland division to the national society.

In research, it can proceed as efficiently as ever.

In the present state of knowledge about the causes of cancer there is no advantage to be gained in research through large organization.

Science is still waiting on an individual flash of insight to construct a theory of cause.

Until this insight arrives a local agency's research can be as profound in its results as a huge bureaucratic national one.

The Blue Cross-Blue Shield insurance plan for older persons is a necessity of our compulsory retirement system which, for better or for worse, seems destined to remain.

A great complaint of the retired is the cost of

(Continued on Page 1402)

LUTIN

improved progestational therapy

SQUIBB HYDROPROGESTERONE CAPROATE

DELALUTIN offers these advantages over other progestational agents:

- long-acting sustained therapy
- more effective in producing and maintaining a completely matured secretory endometrium
- no androgenic effect
- more concentrated solution requiring injection of less vehicle
- unusually well-tolerated, even in large doses
- fewer injections required
- low viscosity makes administration easier

DELALUTIN is also potent and safe therapy for: threatened abortion; postpartum afterpains; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated with genital malignancy; infertility with inadequate corpus luteum function; production of secretory endometrium and desquamation during estrogen therapy; premenstrual tension; dysmenorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

Administration and dosage:

Because of its low viscosity, Delalutin may be administered with a small gauge needle (deep intragluteal injection). Complete information on administration and dosage is supplied in the package insert.

Supply:

Delalutin is available in vials of 2 and 10 cc., each containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

ach of these healthy, normal babies was born by a mother with a documented previous history true habitual abortion, who was treated during her most recent pregnancy with DELALUTIN.



Nina Rutkowski
Roselle, Ill.



Rosanne Guberman
Elmont, L.I., N. Y.



Kenneth Michael Simonson
Denver, Colo.



Daniel A. Fabrizio, Jr.
No. Massapequa, L.I., N. Y.



oanne Verderosa
Seaford, N. Y.



J. Gettemy
Hartford, Conn.



Karen Mary Nederman
East Williston, N. Y.

SQUIBB *Squibb Quality—the Priceless Ingredient*

"DELALUTIN" IS A SQUIBB TRADEMARK.

DETROIT'S HEALTH: TWO ASPECTS

(Continued from Page 1390)

hospital and medical care. Their major fear is inability to meet such costs.

In what will be a continuing conflict, opposing forces have diametrically opposed plans for solving the same problem.

One is through government—a nationally administered program to provide prepaid hospital and medical care, without limitations, to every older and retired person.

The Forand Bill, to do this through the social security system, was defeated in the last session of Congress. It is up again in this session.

It is socialized medicine in unadulterated form.

The Michigan Blue Cross-Blue Shield offers an alternative designed to answer a need without placing the health and bodies of older people under federal control.

It provides hospital and medical benefits similar to those now offered younger persons at a price as consistent with low incomes as seems possible. It provides options, on a share-the-cost, for those who have greater resources.

It is a compromise designed to perpetuate one of our most basic traditions—the independence of the individual through the right of self-determination in the matter of his own health, hospitalization and medical care.

Attacks and criticisms upon the Michigan Blue Cross-Blue Shield plan are certain. The benefits will be called too few; the limitations too many. These criticisms will stem from those who think—and we believe they are sincere—that full government control can be the only answer.

They will cast aside consideration of the many ill effects such government control can bring.

This much is now apparent.

The Blue Cross-Blue Shield insurance for older people will give them medical and hospital care. It is priced at a nonprofit level.

It allows every individual over 65 "the right to be his own man."

And it is ready now.

These points are those that everybody, regardless of his political-social-economic philosophy, must endorse.—*Detroit Times,* August 2, 1959.

DOCTORS' CHARGES

No doubt you have noticed the great number of articles appearing in almost every magazine regarding doctors, their charges and their cupidity. Recently, we picked up a copy of *Parade,* and on the front page was announcement of an article inside labeled "Is Your Doctor Cheating You?". The article went on with seven suggestions on how to avoid the so-called overcharges. The current *Harper's* has an article on how glorious Britain's socialized medical program is, and the article reads rather well. Pick up any magazine and I will wager that some derogatory article about your profession will be inside.

Some if the charges seem well founded. We all know that the bulk of physicians are fair and honest, and that all suffer because of a few. Perhaps we should, for we have done nothing as a group to correct the situation. As your president, I am surprised at the level of our public relations locally. Several times weekly I receive calls from individuals, wondering if they have been charged this or that, whether the doctor should have handled things differently and so on. On the other hand, it is surprising how little it takes to placate most of the inquiries. The answer to most of our problems lies in the office of the individual physician. Friendship continues the most valuable asset any professional man can have. Mass public relations can never refute charges and allegations published in our current periodicals.—G. L. Hagelshau, M.D. in *The Bulletin* (Bay-Arenac-Iosco Counties Medical Society) May, 1959.

HOW BEST TO ATTACK HIGH HOSPITAL COSTS

The high cost of voluntary hospitalization insurance can and should be cut. The alternative is dwindling participation and a lower level of health care for the millions.

Dr. Aims C. McGuiness, special assistant to the Secretary of Health, Education and Welfare, explained in Detroit how one hospital has cut its costs. If all hospitals moved quickly to adopt similar plans, a reduction in insurance rates might be made very soon.

Dr. McGuiness said the Manchester Memorial Hospital in Connecticut devised a system providing for three zones of care for patients. The divisions are for those who are critically ill, those who need some care and ambulatory patients who can care for themselves.

Trimming unneeded service has cut costs in half for the latter group.

Along with the development of deductible hospitalization insurance, which would greatly reduce the admittedly high percentage of unnecessary hospitalization, such systems as the one used in Manchester also can be utilized to reduce rates.

Although the public has been increasingly upset for several years about frequent rate rises, those in control of insurance plans have not sufficiently recognized that imaginative attacks on high costs offer the only real solution of the problem.

If cost-cutting measures are not soon taken, the hospital administrators and doctors who hold control may suddenly find that the public's impatience had led it to alternative solutions of the medical-cost dilemma.—*Detroit Free Press,* March 12, 1959.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 SEPTEMBER, 1959 NUMBER 9

Problems of Aging

By Charles Sellers, M.D.

Detroit, Michigan

AGING has been described as a process that starts at birth and the concept can scarcely be denied. In this discussion, however, we shall pay more attention to persons over sixty-five years of age. The literature abounds with references which conclude that the problems of aging are more pressing after that age. It is a sort of fixed idea.

The total population of the United States is increasing quite rapidly. Many factors have contributed to this increase. Childhood death rates have been reduced in recent years. Some diseases that previously killed many children have come under medical control including typhoid fever, diphtheria, pertussis, scarlet fever, smallpox, pneumonia, appendicitis, mastoiditis and streptococcic throat infections, the latter having contributed to acute rheumatic fever and damage to heart valves.

At the present time excessive immigration has leveled off; war-time high birth rates have leveled off, but still our numbers increase. One reason is that greater numbers of persons live to a greater age than ever before in the history of the country. The average life span is now sixty-eight-plus years for men and seventy-plus for women. The number of aging persons is increasing and the trend will continue into the future. This constitutes a gradual social evolution when there is such a large and increasing number of older persons in our society.

Dr. Sellers is Chief, Division of General Practice, Grace Hospital; President, Wayne County Academy of General Practice; and Associate Editor, *The Detroit Medical News.*

The basic life span has not been lengthened. Since time immemorial, rare individuals have lived to be 100 years of age. More persons now survive the hazards of birth, the infectious diseases of childhood and later life and some of the so-called degenerative diseases usually associated with the aging process.

Aging is a many-patterned thing. Each person ages in a slightly different manner because each has a little different background of heredity, experience, adjustment, endurance or ability to withstand stress, immunity, emotional stability, physical health, education and innumerable beliefs and opinions which may or may not be valid.

We can talk slowly around the periphery of the problems of aging but a proper definition of aging still eludes us. Some persons are physically and mentally quite vigorous in their eighties whereas others are senile in their sixties. This riddle has not been answered and it is difficult to say when it will be.

Two sciences deal particularly with the problems of aging. Gerontology is the study of the aging process and seeks new ideas and new concepts to be passed on to practicing physicians. Geriatrics concerns itself with the diseases of aging, takes a clinical approach and attempts to treat the illnesses found among aging persons.

Research in preventive medicine among aging persons requires considerable insight. Some anatomic parts are more vulnerable to stress and change than others and we need to know which

parts show the greatest change in the greatest number of persons. Perhaps we can avoid putting too much stress on these particular functions when we learn what causes the stress in the first place. We are searching for a way of life that will retain most of our physical and mental faculties far into our later years.

Gerontology may be an ambitious undertaking but little by little new insight and new knowledge are gained. This will contribute to healthful added years when correlated and put into practice by physicians in the management of aging persons. We are faced now with trying to alleviate the diseases and problems associated with aging in more persons than ever before.

Some of the functional changes which occur in aging include:

1. Less flexibility in meeting environmental changes. This indicates a loss of some elastic tissue. We cannot move about in the agile manner that we once did and the same applies to the mental outlook. We tend to become rigid, opinionated and certain about things which really are uncertain.

2. The physical responses to stress become exaggerated. This means that we need to put forth more energy to do the things which we once did with comparative ease. Emotional stress such as the death of a friend disturbs us more than it would have when we were younger. We have to work harder to do our regular duties than we did previously.

3. The return to normal after exertion is slower. This shows that we tire more quickly and take longer to recuperate after any exertion. Young persons recover from the shock of an accident, a fire in the house or the extra work of moving their residence more quickly than older persons do, as all of you are aware.

Loss of ability for exertion poses no threat of disaster if the work loads of older persons are reduced in proportion to their capabilities, their strength. On the other hand complete lack of exertion is very detrimental. All parts of the body must be kept active if structure and function are to be preserved. Our life and usefulness are maintained by being kept in daily activity.

Putting knowledge about the aging process into practical day-to-day application may be a bit tricky but it is better than previously held opinions that aging persons were destined to certain inevitable infirmities and nothing could be done about them.

Perhaps current concepts can be summarized briefly by advising that older persons avoid sudden strenuous physical work such as shoveling snow in the morning on a stormy day; mowing the lawn on an exceptionally hot day; rapid stair climbing, running for a bus or getting into a dispute. At the same time, some activity is better than lying in bed. Walking on the level or even sitting in a rocking chair is better for infirm persons than either extremes of bed rest or running.

Since an aging person should be less active, the caloric or dietary requirements are less and moderate eating is indicated. Prevention of illness is better than treatment. An awareness of the menace of obesity should be a warning to keep the weight at an optimum and still be sure that adequate proteins, minerals and vitamins are consumed.

Physicians cannot tell how to do it precisely but somehow a greater mental latitude should be developed about what is just, proper, fashionable, cultured, or right. It was Benjamin Franklin who said: "All cats are grey after dark." The cultivation of a less rigid attitude than we once entertained is advantageous, a happy attitude if you will, free from coercion, compulsion, worry, stress and care. Young persons are always going to remake the world. Older persons know that it cannot be done. Let us face it.

This does not mean hibernation. Some physical activity must be carried on and the mentality must be kept alert. Some stimulating intellectual activity is highly proper for oldsters. What could be better than attending classes in some field in the colleges or graduate schools of our great universities?

Retirement

Something should be said in opposition to the idea of general retirement at a specific age for it is a real problem facing many aging persons. Chronological age is a poor criterion for retirement. As a matter of fact, many persons are mentally and physically quite capable of working in some capacity for a long time after sixty-five years of age. It is another matter if a person must retire for disability through any cause at any time.

Retirement carries with it the idea that one's usefulness is terminating which may not be the case. It disrupts habits of work, cuts off income

and isolates a person from fellow workers, all of which satisfied certain needs and carried some pleasure values.

If retirement is forced upon a person, he should take up a new work or occupy himself in some manner. Many persons have started new lives after sixty-five by entering into the long desired study of a particular subject or investigation in a new field. Research and consultive services are but two possibilities. New vocations or avocations must be found so that physical or mental deterioration will not supervene.

Housing

There is a widespread belief that when a person retires, he should change his residence, sell his house and move into an apartment, move from the city to the country, move from the country to a town, go to another city, another state or to a warmer climate.

Perhaps some few couples should have a smaller house after their children are grown, married and have established homes of their own. Occasionally a person with chronic asthma, arthritis or coronary heart disease does well to avoid the rigors of a severe winter in a northern climate. Fortunately, only a few persons need to change or do so voluntarily. It is a grave mistake for the average retired older person or couple to leave the community in which they have lived for a long time and are well known or to leave relatives, friends, cronies or even bridge partners. It is a little difficult for older persons to establish themselves in a new community and to acquire a few friends. A few friends are quite important in older life.

Persons who have moved to a different state or city often become lonely and return to their old home bailiwicks. Old folks are a little like old trees in that they are hard to transplant.

Despite some drift of retired persons to the warmer climate of the southern states, the largest proportion of them still reside in their own communities.

Loss of Spouse

The death of a husband or wife may present a problem to the remaining member of the team. Of course it is a time of great sadness. There is a feeling of great loss, some frustration and some regrets. At the same time, however, we must not let it unbalance our reasoning power nor cause us to become completely despondent. We should look upon it as being absolutely inevitable, a normal and natural episode in the very interesting phenomenon of life. All living things come into being, grow and flourish for a varying "span of life" and then pass out of existence. It is the universal law of Nature. All others in their passing have conformed to this immutable law. Surely, we can comprehend this and do as well ourselves when the time comes. We can do no less.

Other interests must be brought into people's lives to make up for the loss of lifetime companions. In fact, all our days, we should try to live what has been called "the diversified life." It is a good plan for all of us to cultivate a large circle of friends against the day when they pass away one by one. It is also a good plan to cultivate a large number of intellectual pursuits other than our regular work against the time when that too may be taken away.

Mental Changes

It would be difficult to determine the causes of the increase in mental changes in later life because they arise from a wide variety of factors some of which are unknown. Modern medicine has kept many human beings alive who might have passed on in their youth—premature babies, weaklings, under-weight and under-nourished children and those with serious infections such as scarlet fever, diphtheria, pertussis, erysipelas, streptococcic throat infections and rheumatic fever. A large number of such children would have died a few years ago before the advent of antibiotics. After recovery today, they may not be sufficiently rugged to withstand the rigors of our competitive society. Some apparently well ones are not equal to the task.

We might speculate that some factors include war, depression, great wealth and great poverty in the same city and frustrations to advancement in business or society. Sometimes there is frustration in the family with loss of cohesion, security, affection and love. The world has great need of love for its future welfare and sanity.

Many fears and false alarms have been spread by newspapers, radio and television. There has been too much publicity given to misguided persons, self-appointed prophets, demagogues, ambitious and ruthless politicians who create phantom demons to slay and captive economists who confuse and mislead us. We have a crisis in congress for breakfast, the perils of the president for lunch and dubious dangers in democracy for dinner. Fear,

frustration and insecurity develop beyond tolerable limits. Stress, apprehension, hostility and aggression manifest themselves as reactions to such a conditioning process.

Obviously, specialization in psychiatry is necessary. It seems, however, that every physician could render greater service to his patients by taking a greater interest in mental health and assume more responsibility for the early recognition, diagnosis, and treatment of some beginning psychiatric conditions. He could do this by observing the mental processes of his patients, by being a confidant and by being a friend to whom the patient can bring his small troubles before they became overwhelming.

Vascular Changes

The hopeless point of view that vascular changes are the natural consequences of aging and that very little can be done about them has given way to a more optimistic outlook based on recent research work. While different theories have been advanced as to the etiology of the vascular changes, the relationship between high serum cholesterol and arteriosclerosis is rather well established. Phospholipids, neutral fats, obesity, hypothyroidism and family inclination also play important roles.

Probably numerous insults to the vascular system by previous infections, deficiencies and excesses over a long period have a bearing on arteriosclerosis, hypertension and coronary heart disease. There is room for improvement in the eating, drinking and living habits of a great many persons. It should be toward moderation.

Efforts should be made to reduce elevated cholesterol levels. Animal fats, salt and caffeine should be limited. Obesity should be combatted wherever present by reducing the total caloric intake. Thyroid extract is indicated in real hypothyroidism. Rauwolfia serpentina has come into widespread use principally because of its relative safety.

Favorable response to a particular plan of treatment is directly proportionate to the interest displayed by both the patient and the physician, the rapport established between the patient and the physician and the firmness with which the patient is impressed with the necessity for the regimen.

A competent general practitioner who has the opportunity to learn the personality and the heredity of a hypertensive patient, and learns about his disease, about the other members of his family, his mother-in-law if you will, about his working conditions and what this squirrel-cage of environment does to his sympathetic nervous system, is in the best position to make recommendations regarding the mode of living, diet, exercise and drug treatment in a given case.

What is to be done after a stroke? As soon as the patient's condition permits, angiograms should be carried out to determine if there is an obstructive lesion (an aneurism or hemorrhage) in the internal carotid artery or the cerebral vessels. Several of these conditions may respond to surgical intervention. Stroke patients should be turned frequently in bed and kept absolutely clean and dry to prevent decubitus. They should be encouraged to move all extremities and help to move themselves. Someone should turn and exercise paralyzed extremities to prevent contractures. The patient should be out of bed as soon as possible. When able, he should try to do nearly everything that he did before the cerebrovascular accident. Rehabilitation will depend on how well a determination has been implanted in the patient to help himself.

Not all patients die with the first vascular accident; a greater number do not, which gives them a second chance. Fortunate is he for whom the bell tinkles before it tolls.

Malignancy

Every older person is concerned about malignancy because, with few exceptions, they occur more frequently among those past middle age. Early recognition accompanied by early treatment still offers the most promise in these diseases.

Special malignancy detection centers do not impress me very much. Mass screening is never too successful. All aging patients should be examined by their private physicians and further examinations and treatments carried out by capable physicians. Healthy persons who are worried about malignancy and do not have it, do not receive from detection clinics the reassurance that can be rendered by private physicians. Such persons continue with their cancerphobia which can be a troublesome neurosis.

The detection of malignancies is going on every day in every physician's office as part of his daily work. Everyone should bring to the physician's attention the slightest suspicion, any mass, any persistent pain, any abnormal bleeding not readily ex-

(Continued on Page 1444)

Atherosclerosis in Aging

A New Look

By George S. Fisher, M.D.
Detroit, Michigan

IN THE space of a few years, the trend of medical thought in regard to atherosclerosis has undergone a remarkable change. Rigidity of arterial walls has been closely allied with senescence. Falzone[2] states that, "In the present state of our knowledge, we cannot clearly separate a so-called physiological senescence from many processes regarded as pathological, such as arteriosclerosis." Yet this author can now go on to say that definite correlations are emerging from biologic research in the aging process which will eventually reach the level of preventive therapy in this disease.

The challenge of this whole problem is brought into sharp focus by examining the alarming trends toward mortality and morbidity from arteriosclerotic disease in its many forms. In three decades, the mortality from these entities, including myocardial infarction, cerebral vascular accident and congestive failure, has risen from 20 to 50 per cent.[1] Our efforts to treat such diseases have not been too successful in spite of some important advances. Decision to follow a positive program for action in the prevention of atherosclerotic changes to the utmost of our abilities, therefore, offers the only solution.

We are at present working at the level of weighing and correlating isolated observations concerning atherosclerosis. In these few paragraphs, only a few of the basic concepts and conclusions can be stated, but already it seems clear that if we accept even some of these, they must influence deeply the practice of medicine as it relates not only to the individual patient but to national health.

What then, is our present meager knowledge of these changes? The pathologist can point out certain thickening and loss of elastic substance in arteries with intimal infiltrates of cholesterol called atheroma which are said to be the end result of a fault in lipid metabolism, arterial injury or internal vascular disease. The mechanisms of these changes are less obvious. A basic sex difference seems to be present with greater thickness to the male arteriolar wall, especially in myocardial circulation. Sinex[6] has advanced theories of collagen denaturation which progresses with aging. Repeated trauma and febrile reactions may play an important part and the impact of renal and pulmonary changes proceeding, in part, from the arteriosclerotic changes may hasten the finally lethal cycle. The discovery of atherosclerosis in certain species of monkeys may give us a laboratory tool for clarification of these influences.

Keys[3-4] has studied in detail the influence of diet. National groups whose intake of fats are low (less than 30 per cent of calories) have shown lower incidence of atherosclerosis and of the high morbidity associated by reason of such catastrophies as cerebral and coronary thrombi, perivascular disease and vascular nephropathy. The death rates in these countries excluding traumatic and febrile diseases, are thus considerably lower than those in countries such as the United States where fats contribute 40 per cent of the calories. The role of fat is, however, not this simple. The inferences of statistics are open to some question since decreased tensions, other dietary differences and racial group differences are present. Yet while the poor Neapolitan has little arteriosclerosis, the indigent Chicagoan was found to have a high incidence due to continued intake of fat, refined carbohydrates with decreased vitamin and mineral content. The type of fat may be a common denominator to the conflicting evidence of the influence of cholesterol, lipids and sterols or production of arterial change. Cholesterol values can be lowered by unsaturated fatty acids of corn, safflower or sardine oils. It is still, however, not the only factor, since corn oil with an iodine number of 120 is more effective in reduction of blood lipids and cholesterol than sardine oil with an iodine number of 188.[4] Nor are the plant sterols, such as beta-sitosterol, the only factor, and results on a long-term study have been inconclusive. It would seem that a complex mechanism which has to do with the efficiency of utilization of essential fatty acids, such as linoleic and arachnidonic, is at work, perhaps with sup-

pression by pressure of saturated fat and absence of essential enzyme components.

Schaefer[5] has reviewed genetic factors in development of hypercholesterolemia and with it, he believes, tendency to accelerated atherosclerosis and arteriosclerosis. He shows convincingly that a dominant gene with partial penetrance gives the best explanation for his observation that with exclusion of environmental factors, the children of parents with hypercholesteremia show five-fold increases in this factor. Goffman[7] and his associates have made an interesting observation of the effects of thyroid extract on cholesterol levels, claiming that continued low values can be maintained, whereas with a dietary regimen, the cholesterol and SF 12-20 values tended upward with time.

Rapid advances have been made in the treatment of some of the complicating syndromes of atherosclerosis. Anticoagulant therapy, endarterectomy, arterial grafts and positive approach to total rehabilitation have advanced from the trial-and-error stage to assume important places in treatment. Mortality has decreased but with our corresponding increase in the number of patients with decided physical and mental limitations, the degree of reversibility of arteriosclerosis has not been determined.

It would seem that the day must soon come when an over-all revision in our reaction to the problem of atherosclerosis will result in action designed to use the concepts stated above. A lower, more unsaturated fat content in a diet which furnishes a more complete nutritional spectrum is a good point at which to begin. Special attention to the individual with inborn error may be an accessory aim.

It is an amazing fact that our national economy which has sold us a nutrition of purified food products, also leads in the production of vitamin supplements to replace the "impurities" removed in the refining process. Already numerous products with high iodine numbers are appearing commercially in response to demand for cholesterol-clearing regimens, and their numbers will increase rapidly. The appraisal of such products by the medical profession at national and local levels should keep pace with improvements, and an action campaign of public and professional education would prevent a dangerous hiatus which might lead to widespread exploitation of foods which are only part of an answer to a problem which continues to be one of the most perplexing in aging. The by-products of this project will perhaps lead to more significant discoveries of the influences of enzymes, vitamins, and as yet unidentified substances in the pathogenesis of atherosclerosis by furnishing new base lines. Further studies on stress[8] and a revision of certain factors concerned with modern living tensions may be assessed parallel to the hereditary factors described above.

It seems inevitable that if the medical profession does not take the leadership in all these developments, other groups and agencies, and the purely commercial interests with a multitude of good and bad answers to give, will furnish to the public less controlled and tested answers. We must answer this challenge in every co-operative way possible. Only then will we again see a new look—a look of decreasing mortality from the major complication of this century's greatest problem—atherosclerosis.

References

1. Bortz, W. and Larsen, N. P.: Atherosclerosis—a preventable factor of early aging. Geriatrics, 12:598-602 (Oct.) 1957.
2. Falzone, J. A.: Basic Medical Research. A.M.A. Planning conference on Medical Society action in the field of aging, September 13, 1958, pp. 16-25.
3. Keys, A.: Atherosclerosis: Problem in newer public health. J. Mt. Sinai Hosp., New York 20:118-139 (July-Aug.) 1953.
4. Kleiner, I. S.: Nutritional factors in atherosclerosis. Internat. Rec. M., 171:522-530 (Aug.) 1958.
5. Schaefer, E.: Genetic factors in hypercholesterolemia. Audio-Digest, Internat. Med., 5:No. 13 (July 7) 1958.
6. Sinex, F. M.: Aging and the lability of irreplaceable molecules. J. Gerontol., 12:190-8 (April 1) 1957.
7. Strisower, Beverly, Gofman, J. W., Galioni, E. F., et al.: Long-term effect of dried thyroid on serum-lipoprotein and serum-cholesterol levels. Lancet., 1:120-125 (Jan. 19) 1957.
8. Thomas, C. B. and Murphy, E. A.: Further studies on cholesterol levels in the Johns Hopkins medical students; the effect of stress at examinations. J. Chron. Dis., 8:661-8 (Dec.) 1958.

1101 Whittier Avenue, Zone 30

The Problem of Cancer in Aging

By C. Howard Ross, M.D.

Ann Arbor, Michigan

ONE of the greatest problems of cancer in aging is pure cussedness among the elderly "peculiar" persons, who often live alone and are hedged within limited horizons. As the years pass and changes are experienced in bodily functions, they develop a hazy, unintelligent notion that "all old persons get that way."

Recluses often abhor medical supervision, but perhaps they will tolerate a few visits each year by the family physician. Many oldsters in their eighties or nineties cannot quite make the trip to the office, but will submit to home care. If the symptoms demand further investigation, they may be taken to the office or the hospital.

Time Element

Early diagnosis is very important in cancer. Sometimes it is not easy for the physician to spend the proper time with an older patient when he comes in unannounced. Usually this has taken some courage. Rather than gloss over the situation with a quick survey of the blood pressure and a cocked ear over the heart, it is better to "talk" on this first visit and then make a definite appointment for a thorough physical examination. The best cancer clinic in the United States is the family doctor, the elderly patient and time for a complete organ review. The record becomes a holograph of consequence.

Proper Referral

If there is evidence of abnormal changes, the next step is intensive investigation through proper referral. Surely, when a patient's life is dangling over the great abyss, and I need aid, I will not choose one who is only a rundle above me on the ethologic ladder.

I recall a well established generalist in a small-town hospital who could treat pneumonia, remove an appendix and set a fracture in good order. One day a young doctor presented a woman of seventy-two years of age with a nodule in her left breast. "A simple mastectomy is awfully simple," said the big man with the engaging smile as he gazed with fatherly assurance on the medical novice. The situation called for a radical operation, including excision of the axillary lymph glands. He was not qualified. The final result was "simply awful."

All the advantages of a brilliant diagnosis of cancer may be lost when the referral is a bungling diminuendo. If the salvage rate is to rise, good referral is a ploy command.

The Medical Trap

Sometimes the doctor falls into anesthesia without inhalant. A weary physician had finished his work for the day and longed for family, dinner and "freedom," when his elderly secretary mentioned a "vaginal discharge." "Well, for heaven's sake, douche and say no more about it," he snapped as he fanned his coattails out the door. A few months later, one of his confreres confronted him with the diagnosis of cancer of the cervix in his all-too-patient secretary. Daily, the doctor must alert himself against the medical trap.

Confused Symptoms

A member of an asthmatic family developed symptoms of asthma late in life. Antihistamines helped for a time, then failed. The patient was sent for allergy skin tests. A preliminary chest film resolved the situation. A bronchiogenic carcinoma was the cause of the asthma, but the diagnosis came rather late.

The same principle applies to other organs. A sixty-eight-year-old man complained of epigastric discomfort after meals, but wanted to postpone follow-up plans. Roentgen ray survey showed a crater and a mass at the antrum of the stomach. A subtotal gastrectomy was done, and the pathologist's report read "carcinoma of the stomach." The man survives as a tribute to minor details.

Metastases

Sitting at the bedside with "beard in hand" and studying the patient may do for the Victorian artist. The twentieth century calls for examination and definitive treatment in cancer with all possible speed.

I sent a man in his eighties with a mass at the base of the tongue to a cancer clinic. I received no report. Upon inquiry, I found that the patient had not kept the appointment. I tried to call him. The telephone was disconnected. Progress was hiding under a jupon of dismay. I drove to his house. There he was rocking on the porch, spry in appearance but bulging in the neck. "I'll wait till spring," was the sibilant reply.

My words about the "metastatic nature of cancer" did not register very deeply. I gently led him to the car and deposited him bodily at the hospital. Operation and radiation approached a "cure." His death from pneumonia prevented a future metastatic disaster. The most painstaking explanation may be ineffective. Pressure beyond the ordinary limits of courtesy often is required.

"Such a Small Tumor"

Small tumors present a problem in geriatric cancer: "It is too small to bother with," is a routine excuse. A neglected pea-sized nodule may produce a baseball metastatic mass in some other part of the body, not excluding the lungs. A tiny excrescence of the skin may be a primary squamous cell carcinoma. A leukoplakia of the buccal mucous membrane may be an early cancer of the mouth. A "show" of blood from the lower bowel demands sigmoidoscopy to rule out neoplasm. "Mighty in size" calls for investigation but "mighty small" may become the anagoge in final examination.

Good Exposure

A maidenly lady of advanced years complained of a sore throat. When I indicated my intention to do a complete physical examination, she demurred. "Must I be pawed over for a mere sore throat?" she said. Finally she submitted, and an enormous fibroid tumor was palpated. She admitted that she knew about it and that it had enlarged in recent weeks. After recovery from the acute illness, an operation revealed a sarcoma, superimposed on the fibroid tumor of the uterus. She was sixty then and is now in her eighties. Almost any departure from normal demands a review of all systems.

I had trouble getting a man to remove his shorts for an examination. When they finally vanished, there in full view was a mass in the phimosed prepuce. This carcinoma required partial penile amputation. He has survived for seven years.

Requests for advice over the telephone can lead one into a trap. A distraught daughter wanted something for her mother's low back pain. Objecting to absent treatment, I made a call and found a cachectic elderly lady with a fungating cancer of the breast. X-ray revealed metastases to the lumbar spine and lungs. Both women refused rational treatment. The best that I could do was to prescribe for the pain and to urge good nursing care.

Pathological Confirmation

The small lesion removed in the physician's office should reach the pathologist. "It is an innocent little thing," is a tempting statement. It is better, however, to have all tissue confirmed than to miss out on one diagnosis.

A man turning seventy years had a severe pharyngitis with associated lymphadenopathy. The report on the leukocyte count was lost. It would have been easy to forget it. A repeat count astounded the floor nurse with a reading of 90,000. The differential indicated myelogenous leukemia. The patient was referred immediately for chemotherapy.

A negative Papanicolaou cytological smear does not rule out malignancy, while a positive report calls for further examination. We have much to learn about cancer. Let us take advantage of all known modalities.

The Cultist

Another problem is the cultist and his unctious solicitude for the sigmoid curve pierced by two parallel lines. His false promise of "miracle" cures delays diagnosis, proper referral and indicated therapy. The alleged "cure" may be as harmless as a child's mud-pie, but the delay resulting therefrom becomes metamorphosed into the simple and effective word "death."

Sign Interpretation

Nature has been kind enough to reveal to us certain warnings as to the possible existence of cancer. The problem of the moment is to follow up complaint with inquiry, when the patient finds himself with any of the following departures from the normal state.

1. Indolent ulcer
2. Pearly plaques
3. Persistent hoarseness
4. Nodular areas
5. Tumor in any part of the body
6. Abnormal show of blood
7. Abnormal function

8. Unusual bodily discharge
9. Failing appetite
10. Pain
11. Change in bowel habits
12. Urinary retention
13. Anemia
14. Weakness
15. Change in color
16. Loss of weight
17. Cough, plus time
18. Change in contour

Summary

In presenting the problem of cancer in the aging I have attempted to crystallize some of my thoughts in simple form.

The cussedness of some older patients has been mentioned, and the time element in evaluating cancer has been discussed. Proper referral has been urged, and the doctor is warned against the "medical trap."

There has been discussion about confused symptoms, the dangers of metastasis and variability in tumor size. Good exposure when examining elderly patients could present the golden opportunity for recognizing early cancer.

The best cancer clinic in the United States is the doctor, the elderly patient and proper time for the detection of any cancer. Pathological confirmation of tissue is absolutely necessary. Danger signals are reviewed.

The delays of the cultist spell death. One of the purposes of this paper is to emphasize again that Geriatrics as a science demands more of the physician than "ninety years of kidding, with termination in a box."

Bibliography

1. Anglem, Thomas J., and Bradford, M. L.: The prognosis of major surgery for cancer in the aged. Cancer, 7:988 (Sept.) 1944.
2. Anglem, Thomas J., and Bradford, M.L.: Evaluation of major surgery for cancer in the aged. J. Am. Geriatrics Soc., 4:336 (April) 1956.
3. Bowden, Lemuel: The patient with incurable cancer. J. Am. Geriatrics Soc., 4:438 (May) 1956.
4. Cancer Prevention Center of Chicago: Pelvic Findings in women past sixty-five. J. Am. Geriatrics Soc., 4:1 (Jan.) 1956.
5. Cancer, A Manual for Physicians: Mich. State Medical Soc. and Mich. Dep't of Health, 1944.
6. Case, Thomas C.: Treatment of carcinoma of the breast in the aged. J. Am. Geriatrics Soc., 4:292 (March) 1956.
7. Cattell, Richard B.: Carcinoma of the rectum at advanced age. Surgical Clinics of North America. Phila.: W. B. Saunders Co., 1954.
8. Cecil, Russel L., and Loeb, Robert F.: A Textbook of Medicine. Phila.: W. B. Saunders Co., 1955.
9. Coller, Frederick A., et al: Cancer of the Colon and Rectum, American Cancer Society, 1956.
10. Cowdry, E. V.: The Case of the Geriatric Patient. St. Louis: The C. V. Mosby Co., 1958.
11. Fraenkel, G. F., and Truelane, S. C.: Haematemesis in the elderly. J. Am. Geriatrics Soc., 4:45 (May) 1956.
12. Gavey, C. J., et al: Discussion on palliation in cancer. J. Am. Geriatrics Soc., 4:963 (Oct.) 1956.
13. Gitlitz, Israel: Morbidity and mortality in old age. J. Am. Geriatrics Soc., 4:1049 (Nov.) 1956.
14. Hammond, William: Common disorders of the aged. J. Am. Geriatrics Soc., 4:215 (March) 1955.
15. Hoover, Walter B., and King, G. D.: The present status of intraoral cancer. Clin. North America, 34: 663-672 (June) 1954.
16. Kaufman, J. J., and Goodwin, W. E.: Cancer of the prostate: diagnosis and treatment. J. Am. Geriatrics Soc., 4:296 (March) 1956.
17. Kleemeier, Robert W.: Somatopsychologic effects of illness in the aged person. Geriatrics, 13:441 (July) 1958.
18. Lewis, Leonard, and Rein, C. R.: Dermatoses in the aged. J. Am. Geriatrics Soc., 4:920 (Sept.) 1956.
19. McKeown, Florence: Malignant disease of old age. Brit. J. Cancer, 10:251 (June) 1956.
20. Marshall, Samuel F.: Cancer of the stomach in patients sixty years of age or older. Surgical Clinics of North America. Philadelphia: W. B. Saunders Co., 1954.
21. Morris, John McLean: Gynecological carcinoma in the older patient. J. Am. Geriatrics Soc., 3:259 (April) 1955.
22. Moyer, John J.: Geriatrics as a medical specialty. Geriatrics, 13:257 (May) 1958.
23. Pelner, Louis: Host-tumor Antagonism. J. Am. Geriatrics Soc., 6:539 (July) 1958.
24. Pomrinse, S. David: Marginal man: A concept of the aging process. Geriatrics, 13:765 (Nov.) 1958.
25. Ross, C. Howard: Geriatrics and the Aging Personality. J. Mich. Med. Soc., 54:545, May, 1955.
26. Ross, C. Howard: Cancer in Geriatrics. J. Mich. M. Soc., 57:536 (April) 1958.
27. Stieglitz, Edward J. (editor): Geriatric Medicine. Philadelphia: J. B. Lippincott Co., 3rd ed., 1954.
28. Stoloff, Irwin L., and Lattimore, T. J.: Episodic stomach cancer. Ann. Int. Med., 42:1173 (June) 1955.
29. Thewlis, Malford W.: The Care of the Aged. St. Louis: The C. V. Mosby Co., 1954.

715 N. University Avenue

An easy game of tennis is recommended as a good sport for those over forty by Bitsy Grant, a former tennis champion in the southern states. Now forty-nine and still winning tennis tournaments, Bitsy heartily recommends tennis for middle-aged and older men. "If you're over forty, make up your mind you're not going to run too much. If the ball comes to you, hit it; if not, let it go," is his advice.

Diabetes and Aging

By Laurence F. Segar, M.D.

Detroit, Michigan

DIABETES presents significant problems in the older age group. Unfortunately, this disease accentuates and hastens the incidence of degenerative vascular disease and often makes medical care necessary several years earlier than for the population at large. Its beginning may be relatively asymptomatic. The classical signs found in young persons of thirst, overeating, polyuria, fatigue and weight loss are not usually present. The disease is frequently discovered on a routine physical examination or a hospital admission for an unrelated condition. Goodman and Goldberg[5] report the case of a man past sixty years of age whose first diagnosis of the disease was made when he was brought to a hospital in diabetic coma.

Routine examinations would give more positive diagnoses of diabetes if instead of the usual fasting blood sugar and urine determinations, these tests were done two hours after an unrestricted meal. This technique is advocated and is being used more and more in carefully managed detection drives.

Many persons over sixty years of age cannot utilize carbohydrate in accordance with normal glucose tolerance standards.[2] These findings persist even when intravenous glucose tolerance tests are done. Thus, the absorption rate of glucose from the gastrointestinal tract is not the cause of impaired tolerance.[14] The cause of the prolonged glucose tolerance curves and elevation of blood sugar in many aged individuals is not clear. Probably it does not represent true diabetes.[12]

Many older diabetics have had their metabolic disturbance for years but occasionally the disease first becomes apparent in a person over sixty years of age. The physician should strive to avoid prolonged hypoglycemia in persons past middle age, as it may precipitate coronary or cerebral thrombosis. Most elderly patients have a greater sense of well-being when their blood sugars are slightly above normal.

Atherosclerosis

Diabetic patients often develop atherosclerosis at an earlier age than non-diabetics. Many expert clinicians contend[9] that such vascular changes may be postponed by scrupulous control of carbohydrate metabolism with diet and insulin. Saturated fatty acids are restricted in the diet and, at times, oral preparations of unsaturated fatty acids are prescribed. Symptoms of atherosclerosis in the peripheral vessels vary from mild sensations of cold, through intermittent claudication, to complete obstruction of the involved vessel. This latter event leads to severe pain and gangrene, a major complication of diabetes often necessitating amputation.

Plaques of atherosclerosis are common in the aorta, coronary and cerebral vessels of elderly diabetic patients and cause a large percentage of diabetic deaths. In women less than sixty years of age, coronary thrombosis is relatively rare except in the presence of diabetes or hypertension. Diabetic women in the earlier age groups approach equality with men in the incidence of coronary artery disease and myocardial infarction.

Ocular Changes

Cataracts are common in aging diabetic patients. Histologically they are the same as senile cataract seen in the aged without diabetes, and are managed in the same way. True diabetic cataract, seen only in young patients, represents an entirely different problem[3] with maturity in days or weeks.

Retinopathy represents a major challenge to the clinician treating diabetes. Small capillary microaneurisms rupture and produce pin-point hemorrhages.[13,15] The lesions may reverse themselves and improve, or they may progress to extensive hemorrhages followed by neo-vascularization and retinitis proliferans. In this event, the ultimate result is total blindness.

There is no adequate therapy for diabetic retinopathy. Vitamin B_{12}, testosterone, hyphophysectomy, adrenalectomy and x-ray therapy have been used with equivocal results.

Nephropathy

Intercapillary glomerulosclerosis described by Kimmelstiel and Wilson in 1936 microscopically shows diffuse or nodular pink staining areas consisting of a deposition of hyaline material in the intercapillary spaces.[1] Patients with the Kimmel-

stiel-Wilson syndrome present a clinical picture of albuminuria, hypertension, edema, reversal of A-G ratio, hypercholesterolemia, nitrogen retention and uremia. Death follows promptly on the developemnt of renal failure. There is no known effective treatment.

Cystitis and pyelonephritis occur frequently in diabetes. A severe form of the latter, known as papillary necrosis of the kidney, occurs most often in diabetics and pursues a fulminating course to fatality.[4]

Neuropathy

Elderly diabetic patients are prone to neuropathy. Pain, parasthesias, loss of vibratory sense and absence of tendon reflexes in the extremities are noted. Abdominal pain simulating tabetic crises is seen occasionally. There is no agreement as to whether diabetic neuropathy is due directly to metabolic changes or to sclerotic changes in the arteries supplying the nerves.

Cancer in Diabetes

Many observers have pointed out that cancer of the pancreas is more common among diabetic persons than among the general population. One series of 256 patients with cancer and diabetes reported from the George Baker clinic[8] in 1934 and another series of 101 patients in 1952 indicated 13 per cent and 12 per cent incidence, respectively, of cancer of the pancreas. The occurrence of this tumor in the population at large is 2.5 per cent. That pancreatic neoplasm was not responsible for the diabetes by destruction of islet cells is indicated by the average duration of diabetes of three to six years, while the duration of symptoms of cancer was only one year.

Jacobson[6] concluded a study by saying "the concensus as expressed in the literature supports the hypothesis that cancer of all kinds occurs more frequently than expected among diabetics."

Joslin and his associates[10] report a contrary opinion in a study of 1,026 individuals from the onset of diabetes to death. They concluded that the number of cases of cancer did not differ significantly from expected values.

Management of Diabetes in the Aging

Diet is the keynote of all diabetic therapy. To be effective, it must (either alone, with insulin or the newer oral hypoglycemic agents) maintain adequate control of hyperglycemia and glycosuria. In addition, the diet must be adjusted to individual needs. Obesity is to be avoided by restriction of calories. Under-nutrition is treated by providing adequate calories along with vitamins and minerals in the diet. Older persons living alone have little incentive to prepare an adequate meal for themselves. Adequate daily protein intake must be provided since this is a common deficiency in geriatric patients. The physician or dietitian should evaluate the needs and problems of the individual patient and tailor the diet to these requirements. This takes time and patience.

Many of the older diabetic patients achieve good control on diet alone, others require insulin for euglycemia. The needs of most of the latter will be served best by one of the intermediate insulins, such as N.P.H., lente, or globin given in a single dose daily before breakfast. Meals should be on schedule. Any failure to do this may result in a drop in blood sugar and an insulin reaction calling for extra carbohydrate such as sweetened fruit juice or ginger ale.

Oral medication which will reduce blood sugar in selected patients has been available since 1956. The arylsulfonylurea compounds are most suitable for patients whose diabetes started in middle life, are stable, require 40 units or less of insulin per day to control and are of less than ten years' duration. The drugs are of much less value in juvenile, brittle or severe late onset diabetes. Even those persons well controlled on tablets require supplementary insulin in stressful situations such as infection, acidosis, surgery or trauma. It is generally agreed that the oral compounds stimulate the release of insulin from the pancreas.

An entirely different compound known as D.B.I., has been released recently for the treatment of diabetes. This drug is a biguanide and causes lowering of the blood sugar by a decreased hepatic output of glucose and an increased uptake of glucose by the muscles. Effective doses often cause nausea and vomiting. Its best use is in relatively small amounts to supplement insulin in unstable diabetes. It also helps minimize hypoglycemic reactions in patients with brittle diabetes.

The oral hypoglycemics are not universally applicable. There are, however, many situations among older patients when the sulfonglurea compounds may be used advantageously. Among these are physical handicaps such as poor vision, tremor of the hands, loss of an arm, or lack of understanding of syringe technique, which render self-

administration of insulin practically impossible. Some others rebel against the use of daily injections.

Conclusions

An attempt has been made to describe briefly the relationship of diabetes and aging. To discuss completely this relationship would require the exposition of a text book on diabetes. Suffice it to say that diabetes in all its protean manifestations is an integral part of the practice of geriatrics.

References

1. Allen, A. C.: The Kidney. New York: Grune and Stratton, Inc., 1951, p. 431.
2. Chesrow, E. J. and Bleyer, J. M.: Glucose tolerance tests in the aged. J. Gerontol., 9:276, 1954.
3. Danowski, T. S.: Diabetes Mellitus. Baltimore: Williams and Wilkins, 1957, p. 432.
4. Danowski, T. S.: Diabetes Mellitus. Baltimore: Williams and Wilkins, 1957, p. 434.
5. Goodman, J. I. and Goldberg, L. B.: Diabetes mellitus in the aged. Ohio M. J., 49:981, 1953.
6. Jacobson, P. H.: A statistical study of cancer among diabetics. Milbank Mem. Fund Quart., 26:90-118 (Jan.) 1948.
7. Joslin, E. P., Root, H. J., White, P. and Marble, A.: Treatment of Diabetes Mellitus. Philadelphia: Lea and Febiger, 9th ed., 1952, p. 41.
8. Joslin, E. P., Root, H. J., White, P. and Marble, A.: Treatment of Diabetes Mellitus. Philadelphia: Lea and Febiger, 9th ed., 1952, p. 568.
9. Joslin, E. P., Root, H. J., White, P. and Marble, A.: Treatment of Diabetes Mellitus. Philadelphia: Lea and Febiger, 9th ed., 1952, p. 408.
10. Joslin, E. P., Lombard, H. L., Burrows, R. E. and Manning, M. D.: Diabetes and cancer. New England J. Med., 260:486 (March) 1959.
11. Kinsell, L. (Moderator): Panel discussion on diabetes mellitus in the aged. J. Am. Geriatrics Soc., 5:563, 1955.
12. Mills, L. C.: Diabetes in the aged. Geriatrics, 13: 320, 1958.
13. Sherrill, J. W.: Diabetes retinitis. Bull. Scripps Metab. Clinic, 2:1-17 (Oct.) 1951.
14. Smith, L. E. and Shock, N. W.: Intravenous glucose tolerance tests in aged males. J. Gerontol., 4:27, 1949.
15. Tassman, I. S.: The Eye Manifestations of Internal Diseases. St. Louis: C. V. Mosby Co., 1942, p. 447.
16. Trueman, R. H., Beardwood, J. T. and Smith, J. J.: X-ray therapy in retinopathy. Diabetes, 2:13-22 (Jan.-Feb.) 1953.

10 Witherell Street, Zone 26

PROBLEMS OF AGING

(Continued from Page 1436)

plained, any change in a wart or mole, any change in bowel habits—either diarrhea or constipation and any chronic fatigue or exhaustion.

If this is done, the physician will have an opportunity to detect the first evidence of malignancy. If we are going to make an impression on this disease, it must be by attacking it very early, sometimes on very little evidence.

This is where a physician with a high index of curiosity about minor symptoms and small bits of evidence does the most for his patients. He needs to be a detective type of doctor who will insist on a chest film on minimal symptoms, a gastrointestinal x-ray on persistent indigestion and a biopsy of any tissue that looks suspicious.

In no other manner are we going to be able to detect malignancy early enough in the disease to remove the primary lesion surgically and achieve satisfactory results.

18545 Schoolcraft Ave.
Detroit 23, Michigan

Driving and Aging

By John R. Rodger, M.D.

Bellaire, Michigan

PHYSICIANS are frequently asked: "Doctor, do you think grandfather should drive?" Many times when the question is not asked, an evaluation needs to be initiated by the physician in the same manner as suggestions are offered to older patients on diet, exercise and rest.

It is tempting but would be unfair to prohibit driving for all beyond a certain age. Aging has many facets, one of which is the desire to live independently. Many suburban and rural areas have no public transportation. Older persons living in these districts may experience difficulty getting to the grocery store, church, lodge and the homes of relatives and friends for some of the social enrichments of life unless they are able to drive.

Our decisions should be influenced by a general knowledge of the driving requirements of our older patient. Rush-hour traffic in metropolitan areas or thruway traffic between cities pose greater problems than driving a mile to a suburban shopping center or down the road to a rural store.

We have a responsibility to help as many as possible of our older patients to live happily, zestfully and healthfully in the years medical science has added to their lives. It is the quality rather than the quantity of the days that counts. Our decisions would be much simpler if older drivers injured or killed only themselves in their traffic accidents but such is not the case. Frequently we are cast in the villain's role of "fencing them in" when it comes to driving which irks them considerably.

When we must hand out an unhappy decision, the appeal should be directed toward the safety of other persons rather than the personal risk. In this way the curtailment of driving will be accepted with a feeling of social responsibility rather than a loss of personal right.

Actual decisions can be guided by the recently published AMA "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle."[1]

In general terms, we look for one or several health conditions which may cause confusion or loss of consciousness thus interfering with the patient's physical and mental ability to manipulate the controls. In addition, we must assess whether or not the drugs we prescribe or the emotional or fatigue situations might make it unsafe for him to drive for a time.

Let us now consider some of the more frequently seen health conditions of the older age group which affect driving proficiency.

Heart Conditions

Patients with mild angina pectoris or myocardial failure with minimal dyspnea on exertion and controlled by therapy may drive a private motor vehicle. Patients with atrioventricular block or myocardial infarction should not drive for several months. Rupture of a ventricle, more likely to occur in the first weeks after an attack, will give no warning. A fresh infarct almost invariably is accompanied by warning symptoms which would permit a driver to get off the road and stop the car.

Hypertension

"Hypertension in itself is not disabling for the safe operation of a motor vehicle, but the complications arising from hypertension, that is, damage to brain, eyes, heart or kidneys, may well prove to be disabling. When the complications are limited to the optic fundi, the degree of impairment of driving ability should be evaluated solely on the basis of loss of vision. If there is any evidence that the hypertension has caused cardiac damage resulting in congestive heart failure or angina pectoris, such patients should be advised not to operate a motor vehicle, unless the congestive failure or angina is well controlled by therapy."[1]

Cerebral Vascular Disease

"Patients with inadequate blood flow to the brain because of atherosclerosis of the cerebral vessels are apt to have attacks of syncope or dizziness and should be advised not to operate a motor vehicle. If there have been cerebral accidents, thromboses, infarctions, transient cerebral vascular spasms, or small areas of cerebral softening with resulting changes in personality, alertness, ability to make decisions, or if there has been actual loss of motor or sensory power or coordination, such patients should be advised not to drive. However, if the

---

Dr. Rodger is Chairman, MSMS Committee on the Study of the Prevention of Highway Accidents and Member, AMA Committee on Medical Aspects of Automobile Injuries and Deaths.

resulting changes in function are minimal, with little or no disability, it may be possible for these individuals to drive a private motor vehicle."[1]

The slowing-up effect of the "small stroke" is seldom realized by either the patient or the family. Yet its effect upon driving efficiency may be marked because of the deterioration of both judgment and reaction time.

Diabetes

"The uncontrolled diabetic should be advised not to drive because of the possible development of disabling complications."[1] Diabetes in older patients often is mild and can be controlled by diet alone or oral therapy or small doses of insulin. Seldom is diabetes a hindrance to safe driving in the aging.

Impaired Eyesight

"At present we believe that patients whose corrected vision, tested under normal standards, is 20/40 or better, may be allowed to drive a private vehicle. Patients with less than 20/70 corrected vision in the better eye should be advised not to drive. At present there is no uniformity of opinion regarding the safe driving ability of individuals with visual acuity between 20/40 and 20/70. Furthermore, at this time there are no scientific data available which permit the establishment of fixed standards.

"The physician should consider the conditions under which each person drives, and the vision the patient possesses. He is then in a position to advise the patient whether or not he should drive in congested traffic, in hazardous road conditions, at high speed or at night."[1]

Visual form fields of 140 degrees or more are considered adequate, while patients with fields of less than 110 degrees should not drive. Those with fields between 110 and 140 degrees must be evaluated personally on the basis of the kind of driving and the amount of lateral vision.

Color blindness is no bar to driving since traffic lights are now standardized.

Hearing Defects

Although deafness is a handicap to a driver, usually it is compensated for and should not be a barrier to the operation of a private vehicle. An outside rear view mirror is important and a hearing aid may help.

Patients with sudden attacks of dizziness due to Ménierè's syndrome should not drive except those in whom the attacks give enough warning to pull over to the side of the road.

Drugs

Numerous drugs have detrimental effects on driving. If a given drug makes a patient drowsy or dizzy there should be no driving until its effects have worn off. Hypertension often is controlled in older patients by hypnotics, sedatives and tranquilizers and these drugs often cause drowsiness. Antihistamines and drugs for motion sickness may be dangerous to certain drivers. Any new drug that is prescribed should be evaluated for its possible effect on the patient's driving ability and the patient should be warned appropriately.

The older patient is as vulnerable to the effects of alcohol upon driving as is anyone else.

"One drink may be tolerated. Two drinks put one in the level of impairment for about two hours. Three drinks are too many."[1]

Fatigue

Fatigued and drowsy drivers in the older age group are responsible for some accidents. The older driver on a long trip should plan a driving day of six or seven hours. He should have rest stops every hour and remember to eat lightly before driving. The only sedatives permitted should be small doses of short-acting drugs at bedtime with at least eight hours in bed.

Conclusions

The physician has a responsibility to the older patient to decide if he can continue to drive, should drive under limited conditions or should temporarily or permanently cease to drive. This advice should be given sympathetically and with emphasis on the older driver's responsibility for the safety of others.

Health conditions relative to driving are assessed in the more frequently seen patients with heart abnormalities, hypertension, cerebral vascular disease, diabetes, eyesight and hearing impairment, and those taking drugs or subject to fatigue.

Reference

1. Medical guide for physicians in determining fitness to drive a motor vehicle. J.A.M.A., 169:1195-1207 (March 14) 1949.

Treatment of Emotional Problems in the Aging

By Alexander H. Hirschfeld, M.D.
Detroit, Michigan

THE characteristics of many medical problems are often difficult to identify since in the mild form they are obscure. When they become severe, however, the characteristics often clarify. The following severe case of emotional distress in geriatrics is presented in the hope that it will clarify mechanisms seen more commonly in the less severe cases.

Report of Case

A septuagenarian man was admitted to a large hospital with minor physical complaints. After a few days, there developed a serious complicating mental disorder with hallucinations and delusions. Consultation was required and examination showed that the apparently wild ravings of the man were understandable. It was learned that for forty years he had been an employe in the same hospital in which he was now being treated. During this time he had been close to many of the chiefs and by-gone greats of the institution. However, after his retirement he had found it necessary to live alone and away from his children. As a result, when time for his physical check-up came, he was actually mildly elated to be returning to the hospital where he would be able to talk to his old cronies. Unhappily, most of the members of the staff whom he had known were either dead or inactive, and he was now more alone than he had been before. This difficulty was accentuated because his physical complaints were minor and required very little nursing attention. Accordingly, he retreated while alone from the unfriendly world of reality into one of his own creation where he was more familiar and in which he was happier. His hallucinations were of being with the old cronies and of talking with them.

These, incidentally, were successfully treated by making a reality situation in which the old gentleman was more comfortable. Student nurses and the house staff were interested in the problem and were asked to come in and chat. The older members of the attending staff also were informed of the hospitalization and these, too, continually dropped in to talk. Removal of the cause resulted in relief of the hallucinosis in forty-eight hours.

This was only an exaggeration of problems which doctors see quite frequently. In the United States there are now twenty million people who are sixty years of age or older and 25 per cent of the entire population is made up of individuals over fifty. Older people, in addition, seem to need more medical help than younger ones, and the result is that a higher percentage of hospital beds and of physicians' appointments are used by the aging or aged. Almost all of them have difficult emotional complications of organic problems and many of their organic syndromes are, in fact, caused by elaboration of their emotional inadequacies.

The psychological difficulties of aging people are similar to those of others. The main problem revolves around the concept of mastery of the environment. It can be observed that man's chief problem is to acquire enough environmental control so that the satisfactions of drives within him become possible. The oldster is no exception. Two authors in particular have written cogently on this subject. The first is Weinberg[15] and the second is Gittleson.[5]

Weinberg says there are two main factors in the emotional problems of the aged. First, as just noted, is the loss of capacity in mastery of the environment and of one's physical self. This idea is very easily understood, when one compares the mental energies with the physical ones. The older person simply does not have either the mental or the physical energy to apply to the job of dealing with the environment around him effectively. The second great emotional problem of the aging is the phenomenon of increasing isolation, a concept which needs no elaboration at all. These two factors are gigantic ego-destroying phenomena, and Weinberg says they are commonly met through three mechanisms. First is by exclusion of stimuli. The second is by conservation of energy and the third, by regression.

Defining these methods of keeping the oldster intact is interesting. By *exclusion of stimuli,* Weinberg means that the person simply refuses to perceive things which are not of great importance to him. Thus, people note that grandmother seems to be deaf only when she wants to be. How true! She no longer has enough energy to wrestle with all the complications of life so she only bothers with those that she feels will be important to her.

This produces an interesting clinical problem. What the patient does not perceive, naturally is

not remembered, and the person becomes forgetful. Accordingly, evaluation of memory takes on new importance in the examining of older people. The teachings of only a few years ago indicated that failing memory, particularly for present events, was a sterling indication of loss of brain substance. We now know that this is not necessarily true. The loss of memory can be the result of the patient's attempting to exclude stimuli which are not pleasant, and can therefore be a purely psychological phenomenon.

Weinberg's next point, he calls *conservation of energy*. Even when the oldster's energy deficiency is not so great as to require exclusion of a large number of stimuli, he is reluctant to expend the effort necessary for him to do many things. The older groups tend to play their own games, and to play them more slowly; they don't show particular interest in learning new ones. They also tend frequently to sit around and be quite quiet. They don't get as excited over new issues. This is often interpreted as rigidity and inflexibility because, in fact, the aging person sees no reason to learn a new way when he has already developed workable patterns and doesn't need to spend the energy experimenting.

The third method of defense against the onslaught of age is *regression*. This is a common mechanism which is used by all people. However, in the aging it deserves special notice, and is often properly called childishness. The person cannot master his present environment with his present energy quotient. He runs back, mentally, to the day and the circumstances where he could. It might be added that the phenomena involved in the first two of Weinberg's defenses are almost completely normal; this one frequently is not so.

Gittleson, who undertook further investigation of these experiences, notes that "the problems of older people are . . . problems of adaptation." He too observes that the first emotional fact of aging is failure in the capacity to master one's environment.

According to him, adjustment to the weakening of the ego is characterized by: (1) exclusion of stimuli, which results in the frequently-encountered forgetfulness; (2) overcompensating for new feelings of inferiority and inadequacy related to sexual and mental decline through increased self-assertion, and even domineering; (3) mild depression related to isolation and loneliness; (4) increased sensitivity to the environmental slights; (5) psychosomatic and conversion symptoms which drain away anxieties engendered by decline; and (6) regression.

Other writers who have described these same phenomena, each in his own terms, include Prados,[11] Lakin,[8] Pomrinse,[10] Rudd,[13] and Rodofsky.[12]

The essence of the picture drawn by all of them is rejection of the aging person by our society, causing the oldster to see himself as depreciated. Along with this is extreme loneliness, a feeling of uselessness, and loss of hope.

Almost all students of the problem also remark on the environmental problems of limited or deficient financial situations, including sub-standard housing. The best of the aged in our culture become highly threatened people through these realities, even if physical infirmity is not a part of the external picture.

"Retirement is the funeral of living death," Gittleson remarks poignantly.

Beyond all the attacks from without is the bombardment from within. The basic fact is that both power and mental energy are reduced. If the people outside have no respect for old age, how much less pride is there from within for an individual whose environment for sixty-five years has taught him that old age is evil?

Reduced mental energy is frequently an almost visible change. Titchner[14] mentions a type of patient who apparently gets on well until surgery becomes necessary. After the operation, the patient seems to have acquired an almost new personality. This can be observed in the hospital, and even in social life following a severe but non-surgical illness. Whether this change be sudden or gradual, a breakthrough of uncontrolled drives can be observed, and not infrequently there is considerable preoccupation with sex.

This is explained in the literature by observations that without much hope, and without much satisfaction in work or love relationships, the aged person seems unable to contain the bombardment from within.

The problem, however, is not hopeless. There are several possible therapeutic approaches, and improvement is frequent, even in very difficult cases. Institutionalizing the patient is required much less often than was formerly believed necessary. Particularly, evidence of organic brain changes is less damning than was once the case.

Busse[1] and associates have done electro-encephalographic examinations of 255 functioning com-

munity volunteers, sixty or over, who were without physical or psychiatric illness indicating malfunctioning of the central nervous system. Fifty-one per cent of these showed, in the examinations, what have always been regarded as significant organic brain changes!

In the therapy of patients with these problems, three points must be considered:

1. The physician first must make use of the occupational and social therapies available, and must have a broad knowledge of pharmacological advances.

2. He must understand that use of so-called depth psychology is not always wise; in fact it is usually contraindicated.

3. He must have a grasp of the somatic problems which affect the patient, and which, in effect, reduce the supply of mental energy.

In reference to the first of these principles, the use of environmental therapies is sometimes greatly underestimated. If isolation of medical students produces hallucinosis, may not isolation of the aged do the same? And if the students' hallucinations are removed by relieving the isolation, why shouldn't the same work for aging patients? The case mentioned early in this article illustrated the affirmative answer.

Even hospitalized mental patients placed in the most untenable position by arteriosclerosis or other brain damage improve with this kind of prescription. Recent studies show that senile state hospital patients improve dramatically with attention. kindness, and helping them to become more useful.

Knowledge of drugs can be equally rewarding. Masserman has produced interesting work with his animal experiments. One of these is a motion picture of monkeys harassed until they became severely withdrawn or irritable enough to attack by biting. Use of sedation brought a return of friendliness in these animals.

What apparently happened was something like this: Unpleasant stimuli had bombarded the animal until it could no longer defend itself except by attacking or withdrawing. Sedation reduced the perception of the bombardment, so that the animal did not feel so harassed and could reach out again, right itself and build a measure of satisfaction into its life.

Whether this theoretical explanation is correct or not, it parallels the facts. The theory coincides with the clinical picture of the oldster who defends himself through withdrawing or irritability.

Several different kinds of tranquilizers work very well in such patients. A few of them are Equanil, Pacatal, Sparine and Compazine. Several studies using the double-blind technique, tested against controls, provide proofs if clinical experience is not enough. Coats,[2] Darlington,[3] and Goldman[6] are among the essayists on this subject.

Clinical experience suggests that one of the principal causes of failure in the use of these drugs is insufficient dosage. This point was first illustrated with chlorpromazine, where original recommended dosages were far less than those found to be required clinically. Experience has shown that Rauwolfia derivatives have a tendency to produce depression, and, in general, should be avoided with older people.

Difficulty in starting the day's activities or depressive symptoms or both are present in many clinical problems. The use of Ritalin is helpful in these cases. There are newer, so-called, specific, anti-depressant drugs which show great promise.

The second major therapeutic consideration is taken from Meerloo[9] and needs little elaboration. However, Meerloo relates an interesting case. A crotchety old lawyer, who chose to teach the psychiatrist rather than accept the role of the child in the doctor-patient relationship, was given some attention by the doctor who listened for fifteen hours. After this period in which the attorney explained a great deal about the feelings of being an older citizen to his younger medical colleague, the patient had less fear of death, and the doctor felt he knew enough to write a paper. Both were right.

A third major psychotherapeutic consideration is far more important than might be thought. The geriatric patient's physical problems must be understood and helped by the physician. This would appear to be obvious. With all the difficulties from within and from outside as well, it would seem unfair to add treatable physical illness to the oldster's load. Yet, in one state hospital, Horbaczewski[7] was able to report that two-thirds of the senile "psychotics" admitted to his institution were so ill physically that their mental problems were a side issue.

Kurt Wolff[16] took action on this point in Kansas. He insisted that all psychiatric geriatric admission candidates be seen first as out-patients. Of the first twenty-eight examined, only seven ulti-

mately became in-patients. The remainder, with clinic care and physical treatment, were able to return to the community.

The Chicago Medical College[4] out-patient experiment showed the same tendency. In this study, a list of deteriorated old clinic frequenters was reviewed. Multiple consultations were stopped, and each patient was assigned to one physician. The physician was given psychiatric guidance while in charge of the patient. The patterns of more than half of the patients were changed, and their capacity to function in the community improved.

With these three general therapeutic principles in mind, the following case is illustrative of what can be done:

Illustrative Case

A seventy-two-year-old widow was living with her daughter, also a widow. A tacit, but very real, battle was waged between the two. The older woman had an injury or ailment in her abdomen, but she refused to let the family physician, who saw her every week, conduct a complete examination.

When the old lady appeared near death, she was taken to a hospital, where examination revealed a large ovarian tumor. After a reasonable period of physical preparation, surgery was performed.

Following the operation, the patient was disoriented, confused, irritable, combative, and hallucinatory. At last she was taken home, where the family supposed she might die in peace. All the listed symptoms continued, and, in addition, the patient lost bowel control.

Not only was she incontinent, but she began to hide the feces. She was then removed to a general hospital psychiatric ward where it was discovered, rather surprisingly, that she could be talked to. With the proper use of tranquilizers, some occupational therapy, and minimum (but real) psychotherapy, incontinence disappeared, confusion cleared and hallucinosis ceased.

Within three weeks, the patient was well enough to have care in a nursing home, and in another six weeks she was able to leave the convalescent situation to enter the home of a son, where the problems which had formerly arisen with the daughter were reduced. When last heard from, improvement had been sustained.

A summary of this case shows that electro-encephalographic changes characteristic of organic brain disorder existed and that all the clinical findings of organic brain syndrome of very severe degree were elicited. In fact, commitment proceedings had already been started for state hospitalization, but use of the three basic therapeutic considerations above described produced significant improvement.

References

1. Busse, E. W., Barnes, R. H., Friedman, E. L. and Kelty, E. I.: Psychological functioning of aged individuals with normal and abnormal electroencephalograms. I. A study of non-hospitalized community volunteers. J. Nerv. & Ment. Dis., 24:135, 1956.
2. Coats, E. A., Gray, R. W. and MacQuiddy, E. L.: Use of frenquel in the treatment of mental disturbances of the aged: A double blind, controlled study. J. Am. Geriatrics Soc., 6:675, 1958.
3. Darlington, H. F.: The use of pacatal with ambulatory patients in general practice. Pennsylvania M. J., 61:207, 1958.
4. Garner, H. H., Simon, A. J. and Handelman: Management of chronic dependency in out-patient clinics by a comprehensive medical-psychiatry service. J. Am. Geriatrics Soc., 6:623, 1958.
5. Gittleson, M.: The emotional problems of elderly people. Geriatrics, 3:135, 1948.
6. Goldman, D.: Results of treatment of psychotic states with newer phenothiazine compounds effective in small doses. Am. J. M. Sc., 235:67, 1958.
7. Horbaczewski, J.: Admissions of geriatric cases to a mental hospital. Canad. M. A. J., 78:22, 1958.
8. Lakin, M.: Affective tone in human figure drawing by institutionalized aged and by normal children. J. Am. Geriatrics Soc., 4:495, 1958.
9. Meerloo, J. A. M.: Transference and resistance in geriatric psychotherapy. Psychoanalyt. Rev., 42:72, 1958.
10. Pomrinse, S. D.: How public health and private medicine co-operate to improve the care of the older person. J. Am. Geriatrics Soc., 6:482, 1958.
11. Prados, M.: Psychodynamics of the personality changes in the aged. Canad. Psychiat. Assoc. J., 2:177, 1957.
12. Rodofsky, M. and Dening, K.: Introduction of corrective therapy in a geriatric service of a mental hospital. J. Am. Geriatrics Soc., 6:355, 1958.
13. Rudd, T. N.: Old age: The completion of a life cycle. J. Am. Geriatrics Soc., 6:586, 1958.
14. Titchener, J., Zwerdling, I., Gottschalk, L. and Levine, M.: Psychological reaction of the aged in surgery. The reactions of renewal and depletion. A.M.A. Arch. Neurol. and Psychiat., 79:63, 1958.
15. Weinberg, Jack: Proceedings of the A.M.A Conference on problems of aging 1958.
16. Wolff, Kurt: Psychiatric evaluation on out-patient basis. J. Am. Getriatrics Soc., 6:760, 1958.

829 Fisher Building

MSMS prides itself that no member has ever been refused his "day in court"—an opportunity to be heard, regardless of the subject.

Exercise in Aging

By Paul Dudley White, M.D.
Boston, Massachusetts

As I sit down to write about the role of exercise in aging, I am conscious of the pleasant and relaxing effect of a brisk walk in the clear cold air in the hills. As a senior member of society, I can vouch for this particular positive effect of exercise; for many aging persons this may be its chief value. However, there are other physiological results of exercise which deserve as much emphasis in the aging as they do in the young, and possibly even more.

Though such effects of exercise are frequently referred to in the presentation of health programs, they are but little discussed in planning for the health and happiness of older persons. To be sure, no hard and fast rules about exercise can be laid down for everyone of a certain age, in the first place, because no two persons have exactly the same physical needs or psychological preferences and, secondly, because chronological age is not the same as physiological age. Also it is true that some individuals live to be old and free from disease despite the fact that the only exercise they get is in breathing, eating, talking, and in tending to their minimal physiological processes of other nature; what percentage of healthy older persons belong in this category has not been determined, but it appears to be considerably in the minority.

Naturally, in extreme old age, when physical strength and mental ability steadily decline, there comes a time when exercise beyond that of the simplest acts of living is no longer possible, but in the early and middle years of old age exercise can be very beneficial. It is important to recognize that there is a difference between positive health and the mere absence of disease.

At any age, physical exercise, more or less planned, though not as a burdensome or boring program, has certain beneficial effects which can be helpfully reviewed in our discussion of the problems of aging. The kind of exercise is not very important except that it should suit the strength, aptitude, and liking of the particular person. It may vary in strenuousness from that involved in simple deep breathing in short periods several times a day to that involved in heavy wood cutting or snow shoveling or fast tennis.

There should be no age set at which a person long accustomed to vigorous exercise should cease exercising, although it is usually wise to tone down the energy expenditure and the amount of time per day or week with each passing decade. If a man or woman is in good health and enjoys exercise in the open air (or perhaps even if not) the beneficial effects can continue to a very advanced age. I have known of Maine guides and lumbermen, gardeners, sailors, laborers, and sportsmen who have kept up a vigorous program both enjoyable and beneficial well into the eighties.

There are very few adequate statistics concerning the health and longevity of athletes. Some articles and books have been published on the subject; one of these, entitled "University Oars," was written many years ago (1873) by Dr. John E. Morgan, who was an oarsman himself. Dr. Morgan, of Oxford University, made a follow-up study of members of the crews who took part in the annual races between Cambridge and Oxford from 1829 to 1869. His conclusion was that the effect of the rowing was a favorable one, that this type of exercise (some of which was continued for years afterward) had no unfavorable effect on health but rather the reverse, and that the longevity of the oarsmen was slightly greater than that of the average population.

A study not yet reported,* which my associates and I made, was a follow-up of Harvard football players who earned their letters between the years 1900 and 1930. This study showed a longevity close to that expected in the population at large. It had been hoped to compare those who continued vigorous exercise throughout their lives with those who took no particular exercise after graduation from college and also those who had gained very much weight with those who had gained practically no weight at all. Evidence on these two points was definitely favorable for those who continued vigorous exercise and who did not gain weight, but the numbers in these extreme groups

Reprinted from *J.A.M.A.*, 165:70 (Sept. 7) 1957, by permission of the author.

*Since this was written, the study has been published in the J.A.M.A., 167:711 (June 7) 1958 under the title "Coronary Heart Disease in Former Football Players."

were hardly adequate for statistical conclusions. One of the difficulties in such a study is that the majority of American males live a standard existence, that is, they eat much the same diet, drink and smoke moderately, get some exercise but not of any considerable degree, and gain a moderate amount of weight through the years (10 to 25 pounds or more in the course of thirty years).

Benefits of Exercise

Exercise has positive effects on the health. In the first place, there is the benefit of establishing or maintaining the general muscular tone throughout the body, including that of the heart itself. Some muscles, of course, become stronger if they are involved in the exercise, for example, the leg muscles in long walks, golfing, cycling, or tennis, or the arm muscles in wood cutting, gardening, fishing, or housework. One of the muscles that it is important to keep in good tone is the diaphragm; almost any vigorous exercise or even repeated programs of deep breathing will help here.

There are several values that are derived from good muscle tone. One is that which concerns the circulation of the blood itself. Sometimes one forgets that the heart, although the most important factor of course, is not the sole supporter of the circulation. The elasticity of the aorta and other great arteries is of importance in maintaining an even flow of blood. The vasomotor function of the smaller vessels is vital for the selective distribution of the blood to the organs as needed. The peripheral veins with their valves act as local pumps for the return of blood to the heart when they are compressed by the muscles that surround them. The better the tone of the muscles the better in this support to the heart afforded by the veins. For the same reason, peripheral venous stasis of high degree with the development of varicosities, the pooling of the blood, and phlebothrombosis is counteracted, to a certain degree at least, by good muscle tone. Finally, good tone of the diaphragm with wide respiratory excursions (aided by the avoidance of obesity) not only greatly helps respiration but also improves the pumping action of the diaphragm in its suction of blood back to the chambers of the right side of the heart.

A second benefit from exercise is that already referred to, namely, its effect on the psyche. Most individuals, old as well as young, are much helped by the relaxation which comes from exercise of the right degree, usually midway in amount and intensity between the extremes of triviality and exhaustion. For many of us, exercise is a delightful antidote for nervous tension and strains, anxiety, and mental concentration. A pleasant fatigue of the skeletal muscles has time and time again given me mental repose, peaceful sleep, and a sense of equanimity.

A third benefit has been on digestion, partly, in all probability, by reducing nervous tension, which is a common factor in cases of esophageal irritability (cardiospasm) and peptic ulcer, and partly by its favorable effect on the bowel function.

A fourth benefit of exercise at any age, and therefore applicable to the "aging," is its favorable effect in helping to control obesity, a condition widely regarded as inimical to the best of health and longevity. Although it is true that obesity is due to the combined effects of heredity and over-nutrition, nevertheless, with the same caloric intake, the increased metabolic requirement resulting from exercise does help to control body weight. It is not the fat deposited under the skin here and there throughout the body or in the omentum that is of most importance but rather a few grams of fat in the wrong places, particularly in the walls of the coronary and other important arteries.

Finally, the deepening of respiration which comes with exercise favors the function of the lungs in gaseous exchange and in the state of the lung tissue itself. Although chronic bronchitis and emphysema are common in old age and limit the amount of exercise possible, they are not a bar in themselves to mild exercise within the reserves of the person affected.

Even in the presence of disease other than in the lungs, suitable exercise can be beneficial. I have seen many patients with heart disease of various kinds and degree and, except for the most severe cases, slight to moderate exercise can and should be prescribed. Of course, angina pectoris too easily induced or myocardial weakness of considerable degree will demand *pro tem* absolute rest, but with recovery or in the presence of well-healed myocardial infarction, as in the President's case, a careful program of regular exercise may not only be an important health measure but it may conceivably be helpful, in the absence of important symptoms, in retarding the further prog-

(Continued on Page 1465)

Medicine's Responsibility to the Aging

By A. Hazen Price, M.D.
Detroit, Michigan

THE population of our country is increasing tremendously because more people are living longer than ever before. As custodians of the health of these older people, members of the medical profession are charged with providing them with the best medical care possible.

Our first major responsibility is to the younger members of the community. They need guidance in planning their future to help avoid some of the problems of health now experienced by their parents. Some of the principles of preventive medicine will instill better habits of eating and exercise long before the aging process becomes manifest. Good habits of living will slow down the aging process. The need should be stressed for a wide range of interests early in life as a preventive against boredom and hypochondriasis, which so frequently follows separation from the active labor force.

Our second responsibility is to provide good medical care to the older members of our present society. Their needs are many and they may tax our ingenuity to help them. Presently there are 600,000 persons over sixty-five years of age living in Michigan. Every doctor of medicine might well have about 100 persons in this age group under his care. Our practices will be devoted increasingly to the care of older people.

Some of us like older people, enjoy talking with them and are pleased to help them solve their many difficulties. Other physicians have little concern for the elderly patient and are quick to attribute all of his ills to the aging process. He may say, "You cannot expect to be young again." When a physician purports to help his patient and leaves him with this general feeling of hopelessness, he certainly is not practicing good medicine. We are largely responsible for having brought more people to the age of sixty-five years than in any previous generation. Let us give them hope for added years of usefulness by the use of a good psychologic approach in the management of their many problems.

Another major consideration should be the realization that living in our later years is a matter of everyone's concern. The physician may see the patient first because of some physical or mental complaint, but soon discovers that the illness *per se* may be only a small part of the total picture. Basically it may be a sociologic problem—improper living arrangements, poor economic status, loneliness, a derelict attitude on the part of children, or simply a lack of something to keep body and mind occupied. The individual's own lack of initiative may be responsible for much of his plight; nevertheless, the condition exists and it is the responsibility of others in the community to help remedy such situations. Many communities already have various facilities available to help. Where they do not exist, the physician may be the logical person to initiate positive social thinking and call together representative members of the community to form a committee on aging.

In some areas, social workers associated with the various departments of health and welfare have seen the need and developed programs of service to the elderly persons. Their efforts may have seemed to intrude into the field of medicine and the physician may feel some resentment. In most quarters, however, doctors, social workers and community planning groups have worked in close harmony for the welfare of the older persons. Here, the effectiveness of social gerontology and geriatric medicine will be demonstrated.

Most older persons, when they become ill, would rather be cared for in their own homes than in a hospital. Unfortunately, there has been a growing trend among certain groups of physicians not to make home calls. This is more prone among the younger men, for the older practitioners have learned the satisfying experience of caring for people in their own homes. These physicians are missing an important experience that would make them better doctors in later years. "The house call is an institution that fixes us more securely in the public esteem than any other, and the physician who refuses to make them, even in an emergency situation, does us harm."

Dr. Price is Chairman, MSMS Geriatrics Committee.

Home calls must be made on older persons who are ill until the seriousness of the situation has been thoroughly evaluated. Of course a short period of hospitalization often is advisable. When the acute phase of the illness is over, which is seldom more than five or six days, they should be transferred home or to a chronic wing in the hospital where rehabilitation can be initiated. This must be given under the guidance of trained personnel who teach the patient how to help himself rather than to have everything done for him as in the acute sections of the hospital. Members of the family could be included in the training process so that they, too, will grasp the basic concepts of good rehabilitation. The sooner patients are transferred to the "Do-it-yourself Unit" the more rapid is the recovery. These chronic wings have been developed in many general hospitals and it is the duty of the staff to encourage their further extension and use.

Some older patients become confused during their hospitalization but when they get home in familiar surroundings, clear up entirely. It is important then that patients be transferred home for continued care. Home Care Programs are being developed throughout the state in conjunction with visiting nurse associations or other agencies.

These programs are necessary because of the increased number of older persons and by the increased emphasis being placed on the rehabilitation of all chronically ill persons. Long hospitalization often is replaced by physician-directed nursing in the home. This type of care should be expanded because it is psychologically valuable and hospital costs are becoming prohibitive.

The most effective care is that which returns a person quickly and fully to good health and social participation. The team approach of physician, nurse, social worker and physiotherapist gives both aid and satisfaction to the patient. Hospital costs and lack of beds make it mandatory that more home care be given to older persons.

Nursing homes and homes for the aged are now licensed by the State Department of Health. New rules and regulations were established for better standards of medical care. Two years have been allowed for conformity. Conditions will be greatly improved through the interest shown by the Department of Health and the Association of Approved Nursing Homes.

Physicians and other interested people in the community should champion good nursing home facilities in their own localities. All such homes, small or large, should be licensed. They will then come under the surveillance of the Department of Health.

As people get older, long-term illnesses loom as increasingly serious problems. Many of these patients may face confinement in hospitals and nursing homes. Efforts should be made to find and treat these individuals before their illnesses reach serious proportions. In this way, much suffering and expense might be avoided. Member units of the Diabetic Association and the American Cancer Society have done much to detect early cases so that prompt treatment can be instituted. The Department of Health has provided mobile-unit chest x-rays, finding unsuspected cases of tuberculosis, lung cancer and heart disease. Screening programs help to discover various diseases in the general population before they have reached symptom-producing proportions. This same plan of mass screening could be extended to a larger segment of our aging population in co-operation with the county medical societies, hospital clinics and local health departments. Glaucoma, blood disorders, hypertension, arthritis and urinary tract infections may thus be detected early.

All persons should go to a physician or clinic each year for a complete health appraisal but unfortunately only a few avail themselves of this plan. The limited number of physicians and the cost make such an undertaking somewhat difficult in many communities. With the magnitude of the problem of chronic illness steadily increasing, we must attempt to provide adequate medical care for the total health needs of our aging population. Some feel that good health care is only possible when underwritten by the Federal Government. It is our business to prove that it can be given by physicians in private practice in co-operation with the health departments of the country.

Lowered physician's fees for persons over sixty-five years of age with reduced incomes and limited resources to spur effective voluntary health insurance programs for the aged was voted by the American Medical Association House of Delegates. By the physician accepting a lower fee, the older person should be able to buy insurance at reduced premium rates. This should stimulate the issue and purchase of a much-needed type of policy.

(Continued on Page 1467)

The Skin in Aging

By Alice E. Palmer, M.D.
Detroit, Michigan

WE HUMAN BEINGS have become objective about life cycles in plants and in animals, but something about our emotional constitution makes us unwilling to consider that we ourselves have a natural life cycle. We spend much time, worry, effort and money trying to forestall the natural progression of our lives. We unrealistically delude ourselves into thinking that we fool our fellow man into a false estimate of our attainment in years. Perhaps when we have answered the question why we feel that this is necessary we will make another step forward into cultural maturity.

One example of the type of self deception our society encourages is the women, in many respects intelligent and mature, who feel compelled to apply weird and irrational assortments of agents to their skins. Presumably, this is a manifestation of the fear inherent in our civilization.

Physicians are constantly confronted with the basic fact that all things that have life have a beginning and an end. The optimum lifespan of the human body, on the average, is fairly well pre-determined. Man's mastery over the aging process has been in the nature of learning how to remove elements which would shorten man's natural span. Man is the natural prey of other forms of life, just as other forms are the natural prey of man. By removing all those forms which consume us, as lions and tigers, bacteria, parasites, fungi, and the contagious evil ideas of man himself, our bodily habitations are still left with the inevitable march of time and the changes which it produces in us.

Our skin is the part of us that we present to the world. It does not seem to make much difference what we do to ourselves, other people seem to be able to make a close observation as to where we stand in our personal timetable. However, it is a well-known fact also that certain racial types "look older" at an earlier age than some others. It is also known that illness, and hormonal effects may seem to add to or detract a few years. Chemical, radiologic, climatic, economic, social, and spiritual effects all play a role. The narrower interpersonal relationships giving rise to emotional manifestations, whether of happiness, hate, bitterness, hostility, anxiety, all have their effect on aging. Even the humidity in the air and our general habits of living have a part in determining the rate of aging processes. It may be speculated that radiation of various types, without which life itself would not exist, could, under varying circumstances, hasten or slow the aging process. Aging changes actually resemble radiation changes in many ways. It may be that many of our cutaneous changes are actually due to the constant radiation we receive all during our lives on this earth from several natural sources. It has been shown that such natural radiation takes place all the time[3] and that over a lifetime we receive even more radiation from these natural sources than we do from man-made radiation.

Ideas relating to the time of onset of aging processes are conflicting. One philosopher, Erich Fromm,[1] considers that we continue being born until we are fully developed. It is presumably at the point where we are momentarily a full adult that we begin our decline. Biologists, working from chemical and microscopic evidence, are not in agreement. Goldzieher[2] stated that atrophy of the skin can be detected at age sixty and becomes noticeable at age seventy; whereas Reizenstein[6] stated that atrophy of the skin is definitely detected between twenty-six and twenty-eight years. Schmidt[7] claimed that age changes begin at about age forty. Goldzieher[2] stated further that atrophy corresponds roughly to a person's chronological age and is not in proportion to the amount of sex hormone secretion. Careful studies on rats show that histologic studies of the skin give quite close approximations of age. Such studies limited to definite screened human types have not been done which would take into account the factors of sex, health, heredity, race, environment, and living habits.

Clinically the most obvious signs of aging as reflected by the skin are the development of wrin-

Dr. Palmer is Chairman, Department of Dermatology, Grace Hospital; Consultant, Charles G. Jennings Hospital, and Assistant Professor of Dermatology, Wayne State University College of Medicine, Detroit.

kles and the loss of hair pigment as well as the loss of hair itself. In the natural passage of time, certain events take place in the skin. The epidermis becomes thinner and has fewer cells, a fact which is highly emphasized by cosmeticians. The change is actually atrophy. Investigators working on the problem of changes in the epidermis have noted that the cell depth of the epidermis can be influenced favorably by the topical application of hormones or of vitamins. The cellular thickness may also be increased by friction and by irritating substances. This emphasis on the epidermis does not get at the real change in the aging skin. Senile degeneration of the subepidermal elements constitutes the essential aging change. Most important are the atrophy and fracture of the elastic fibers and of the collagen fibers. Another event of importance is the development of sclerosis of the tiny capillary loops and the arterioles of the skin. This effect not only reduces nutritional supply but interferes with temperature control of the body, an important cutaneous function. Due to the effects on the skin of total aging changes in the body, such functions as the antibody responses, and hormonal shifts, with resultant effects on pigmentation potentialities and even on the circulation, are altered. With a decrease in the amount of sweat-oil film on the skin, and decreased pigment, along with hormonal changes, it can readily be seen that the effects of the environment, themselves, produce a different reaction in the old skin than in the young. Then, too, when we remember that the skin itself has differing functions and even somewhat differing anatomy on the various surfaces of the body, it will be seen why certain changes are more common in one area than in another. The clinical result of aging changes is discomfort in the winter especially, both from the dry air of an artificially heated house, and from frequent baths, cold temperatures and drafts. Another important effect on both temperature control and on senile pruritus is that which is central in origin, due to central nervous system arteriosclerosis. In such instances, topical applications may fail, while mild subcortical sedation, such as simple bromides, is often helpful.

Due to the decrease in the oil-sweat mantle which covers the skin, the old person has less lubrication to hold the constantly shedding skin cells together, and the skin assumes a fine dusty type of scaling. Such skin has little resistance to the harsh degreasing action of soaps, alkalies, and detergents.

It is hypothesized by Pinkus[5] that the aging changes in the skin take place at varying rates from one area to another. Then, because of the usual biologic phenomenon of overcompensation for a loss of function, there is occasional overgrowth. Many of these overgrowths occur on almost every aging skin, to the point where we may consider certain of them "normal." They are unsightly, however, and often lead to other medical complications. Hence, it is a good policy to keep the skin freed of them as they appear. Such excrescences are the seborrheic wart, the senile freckle (sometimes called senile lentigo), the seborrheic keratosis, the cutaneous tag, the talangiectasis of Dubrueihl, and the senile keratosis.

Care of the Aging Skin

Instructions for the care of the aging skin should be kept simple and natural. Good hygiene, adequate lubrication, and preventive removal of excrescences constitute the basic fundamentals of such care. Comfort and adequate cosmetic appearance are the goals.[4]

References

1. Fromm, Eric: Escape from Freedom. New York: Farrar & Reinhart, 1941.
2. Goldzieher, J. W., Rawls, W. B., Roberts, I. S., and Goldzieher, M. A.: J. Gerontol., 7:47, 1952.
3. Letterette, Howard: Radiation Hazards. Address to Detroit Dermatological Society, Nov. 13, 1957.
4. Palmer, A. E.: The dermotologist, the older woman and cosmetics. J. Soc., Cosmetic Chemists, 9:336 (Nov.) 1958.
5. Pinkus, Hermann: *In* Rothman, S., Physiology and Biochemistry of the Skin. Chicago: University of Chicago Press, 1954.
6. Reizenstein, A.: Ueber die Altersveränderungen der elastischen Fasern in der Haut. Monatschr. f. prakt. Dermat., 18:1-7, 1894.
7. Schmidt, M. B.: Ueber die Altersveränderungen der elastischen Fasern in der Haut. Virchow's Arch. Path. Anat., 125:239-251, 1891.

3919 John R. Street, Zone 1

Carmel Hall

By Mother M. Regina Carmel

Detroit, Michigan

THE evident need for suitable housing and proper care for the many elderly residents of Detroit and its vicinity prompted His Eminence, the late Edward Cardinal Mooney, to purchase the former Hotel Detroiter, a 750 room hotel, for use as a Home for retired men and women of the Archdiocese of Detroit. The Carmelite Sisters for the Aged and Infirm were invited by Cardinal Mooney to take charge of the new Home to be known as Carmel Hall.

Much remodeling and reconditioning took place in the building to make it suitable for the needs of the Home. The entire building was re-wired, and new plumbing installed where necessary. A new completely equipped kitchen and a pleasant comfortable dining room for seating 400 people at tables for couples and for four people were installed. The former drugstore was transformed into a modern Little Theatre, and throughout the building convenient diet kitchens and sitting rooms were arranged on each floor. Two floors were remodeled for a Medical Section where 100 hospital beds are available. The services include examining rooms, x-ray, laboratory, physio-therapy, rehabilitation and activities of daily living program. A new Chapel was built by extending the second floor of the building. A charming garden has been added which provides enjoyment in nice weather for the residents.

As a Home for the Aging, Carmel Hall has been a most saisfying achievement. Located as it is in the heart of a thriving metropolis, it serves the aging men and women of the Detroit area in an environment to which the majority of the residents have long been accustomed. At Carmel Hall there is every opportunity for the residents to lead as active, interesting and useful lives as they are capable of leading. The Home's proximity to downtown Detroit permits residents to shop, visit friends, attend the theatre and other recreational and educational centers of the city. In this way, they are able to maintain contact with the community at large, and they do not become isolated from community affairs because of the fact that they are living in a home for the aging.

Residence quarters at Carmel Hall include private rooms with bath, and residents may, if they wish, furnish their own rooms or bring with them treasured articles from their former homes. Diet kitchens provide a place for between meal snacks, and sitting rooms on each floor can be used for entertaining visitors. Meals are served in the main dining room, but tray service is available when necessary. Special diets are also arranged.

Residents may enjoy recreational diversions such as television, card games, and programs of entertainment which are frequently offered by outside groups. In addition, residents are encouraged to participate in their own home talent programs. The Carmel Hall Glee Club and Drama Group, and the Staff of *Carmel Times,* our monthly home newspaper, attract a number of residents.

The Occupational Therapy Department offers classes in arts and crafts such as weaving, leathercraft, ceramics, china-painting, copper enameling, dressmaking, and many more. Groups also meet to make party favors or roll bandages. A registered Occupational Therapist is in charge of the department. The Medical Section accommodates the bed-ridden and chronically ill where twenty-four-hour nursing care is given. Residents may continue under the care of their private physician or be treated by a member of the Staff. A section has also been made available for the care of those residents requiring custodial care, and a private dining room is located there for the accommodation of such residents.

The Residents' Library at the Hall is serviced through the Public Library, and magazine subscriptions are also received. The Library staff consists of resident volunteers who are completely responsible for the library. Monthly programs featuring a motion picture or guest speaker are sponsored by the Library, and a special service rendered the chronically ill residents is "books on wheels" whereby one of the library staff weekly visits the Medical Section to distribute books for the convenience of bed-ridden residents.

A beauty shoppe in operation at Carmel Hall is a real morale lifter for our ladies, and the

gentlemen of the house find the barber shop a great convenience. A special attraction is the former bar, now called the Carmel Hall Tavern Room, and here on special occasions and after evening entertainments, cocktails are served to residents.

A Chapel has been provided for Daily Mass and other religious services, and the resident Chaplain is available for spiritual advice and counsel to all who feel the need for such help.

In connection with the various programs at Carmel Hall, we depend upon the valuable service rendered by volunteers. A group of high school girls participate in a nurse's aide class and then help to make beds, serve trays and to perform various other services for the residents. Young business women give clerical help, switchboard service or do volunteer driving for the residents. Other volunteers read to handicapped residents, take them for walks, write letters and do many other small but important tasks. The Catholic Nurse Association has provided us with a volunteer registered nurse almost every day in the past three years of operation. Carmel Hall was opened in June, 1955, and presently accommodates approximately 500 residents. The Home is a charitable, non-profit organization, but it must be self-supporting. Rates for monthly care are moderate.

To sum up our total program at Carmel Hall, we hope to help our residents to have continued faith in the maxim that "life is worth living," despite their age. Our Community of Carmelite Sisters for the Aged and Infirm conducts twenty-six other homes for the aged. Our endeavors are based upon the guidance and experience of our Foundress and present Mother-General, Reverend Mother Angeline Teresa, who with keen foresight twenty-nine years ago envisioned truly home-like homes for aging men and women wherein they would retain their independence and sense of responsibility while receiving the security and love which is so necessary at this time of their lives. This is the ideal which is always the main objective of our program at Carmel Hall.

VA ACHIEVES NEW GOAL

Veterans Administration started a new fiscal year July 1, quite satisfied with arrangements made with the states for compensation of doctors participating in the "home town care" program. Raises averaging 25 per cent have been allowed for surgical fees. Except for a few states which asked for no increase, the office visit fee will go from $4 to $5, with provision made for higher rates for certain specialized services.

In return, VA has won its point—over rugged opposition by AMA—that doctors shall submit both their bills and clinical reports to regional offices of the Federal agency. Heretofore, the report went to the regional office but the bill was forwarded to the intermediary agency. in those states where the intermediary system was in use.

South Dakota was the only intermediary state to reject a contract and withdraw because of VA's insistence upon monitoring both bill and case report. California. New York, Hawaii, Colorado, North Carolina, Oregon. Washington, Wisconsin and Michigan all came in again. Medical societies of eighteen other states entered into letters of agreement, while in twenty-five other jurisdictions scales of payment of physicians for "home town" care will follow VA's Appendix A schedule.—WRMS, June 28, 1959.

Home Care for the Chronically Ill Geriatric Patient

By Sidney E. Chapin, M.D.
Dearborn, Michigan

THERE are actually thousands of beds available for the chronically ill geriatric patient in this state today.

These beds are in the home.

Many patients with hip fractures, arthritis, congestive heart failure, strokes, diabetes and its complications, cancer, amputations, and others, require only a short period of general hospital care. They would welcome the opportunity to return home at an early date.

Under the supervision of the family physician, an organized home care program can provide the following co-ordinated services: (1) nursing; (2) nutritionist or dietitian; (3) physical therapy, occupational therapy, or speech therapy; (4) homemaker aid; (5) supplies—such as hospital beds, wheelchairs, walkers, et cetera; (6) social and economic help; (7) religious help; and (8) family education in patient care.

The growing number of chronically ill patients, the staggering cost of keeping these patients in hospitals for long periods, and the shortage of hospital beds, are the main factors influencing the development of home care programs in many communities.

For over three years, the Home Care Demonstration of the Visiting Nurse Association of Detroit has given definitive care to many chronically ill geriatric patients in their homes. By bringing modern medical knowledge and skills into the home through this team approach, many patients have been adequately rehabilitated. The number of patients cared for, however, is only a small percentage of the great reservoir of those afflicted with long-term illness.

The Home Care Demonstration has shown that efforts in this direction are practicable in the home. In addition, the Home Care Demonstration has shown that these objectives can be attained at a cost approximating 25 per cent of the present-day hospital cost. Such a program provides a continuity of service between the hospital and the establishment of a comparable regime at home; provides the enlivening surroundings of home which are necessary to strengthen the patient's will to get well; is a rehabilitative project aimed at the marshalling of community resources for physical and psychological retraining of the sick and handicapped; provides for evaluating each patient individually, and tailoring a regimen suited to his own potentialities for rehabilitation.

The Home Care Program can attain maximum self-sufficiency and independence for the patient.

Illustrative Cases

A seventy-one-year-old lady, with a hip fracture and congestive heart failure, was home after fourteen days in the hospital. With nursing service, physiotherapy, a nutrition consultation, some adaptive equipment, and the education of the family in her definitive care, she was completely rehabilitated in three months.

A lady, aged seventy-five, who lived alone, was home twenty days after her hip fracture. With the nursing service to care for her decubiti, a homemaker, physiotherapy, and some adaptive equipment, she was completely able to care for herself in less than four months.

A seventy-four-year-old man, with diabetes and impending gangrene of both lower extremities, was home after fourteen hospital days and a bilateral sympathectomy. With nursing service, physiotherapy, diet evaluation and education, some adaptive equipment, and intensive training of his wife, he reached maximum self-sufficiency and independence in a few weeks.

A woman, aged sixty-six, with a hemiplegia and diabetes, was home after eleven days in the hospital. With nursing service, a homemaker (so that her husband could continue to work), physiotherapy, dietary instruction, and some adaptive equipment, she could accomplish her own daily needs after about six weeks.

Conclusions

There are thousands of beds available for chronically ill geriatric patients in their own homes.

An organized home care program shortens the hospital stay and brings all the necessary services for rehabilitation and medical care into the enlivening surroundings of the home.

The chronically ill geriatric patient can attain maximum self-sufficiency and independence in a reasonable time and at a reasonable cost.

125 North Military, Zone 7

Dr. Chapin is Medical Director, Home Care Demonstration, Visiting Nurse Association of Detroit.

Kundig Center

A Fresh Approach

By Rev. W. F. Suedkamp

Detroit, Michigan

KUNDIG CENTER was opened in 1954 as a day-care center for old folks. It was thought they needed a place where they could meet people of their own generation and pass hours of leisure time over the card table and tea cup. Much of the inspiration stemmed from a Robert Montgomery TV Show entitled, "Such a Busy Day Tomorrow." This show portrayed the lonely life of a widower in a big city. The man, neglected by his own son, was living alone in a downtown area, eating his meals in a restaurant and watching "the rest of the world go by." He was sad and depressed. Then he was invited to an activities center and life took on a new meaning. Psychologically there was a rebirth and the lonely old man found real happiness in his heretofore lonely, miserable existence.

I wanted Kundig Center to perform just such a function. I used an old building in a neighborhood of old houses and old folks near downtown Detroit. In the beginning I opened each afternoon of the week. We had phenomenal growth and soon had more people than we could accommodate. In my mind, this pointed out the real need for such a place. As we grew, I observed that these old folks had all kinds of social problems. Originally Kundig Center was to be a leisure time program offering counseling services. When the old folks came to play, however, they brought all of their problems with them.

I was determined to find the right kind of Director for my program—one who would listen to their problems and then solve them in a practical way—one who would have a real sense of humor and enduring patience. James McCuish filled the requirements completely.

Housing

One of the most common problems was that of inadequate housing for a group of people who had about $75.00 a month for both food and shelter.

Since car fare and transportation were real difficulties and since the old folks enjoyed our activities program, it was only natural that we turned to our immediate neighborhood to solve the housing problem. We were well aware of the institutions available in the community. In fact, it was during this evolution of our program that Carmel Hall came into being. Our neighborhood had many clean and decent rooms within walking distance of Kundig Center. The neighborhood is made up largely of big, old houses occupied by widows or older couples whose children have moved to the suburbs. These people do not want to move out of their old surroundings and can use the supplemented income to conserve their property. These folks appreciated working with a social agency in locating the proper pensioners to be their roomers. So we began, literally, with one "campus" dweller—Jerry Casey—and today we have seventy persons on "campus."

Diet

The landladies were not interested in boarding our residents. To solve this problem we hired a cook to prepare three meals a day to be served in our centralized dining room. We served plain, wholesome food and all of it they could eat. Only later it dawned on us that we could control eating habits and we began to hear more about "diet" and "nutrition" of the older person. We became interested and learned much from the volunteer advice of a dietitian from Grace Hospital. We felt that many of the men and women who turned to us for housing and food were undernourished or at least poorly fed. They had been trying to cook for themselves when they were not able or they would get an occasional meal in a cheap restaurant. So far the "campus" has a centralized activities building, a dining room and seventy rented bedrooms within a radius of four city blocks.

Medical Care

We next undertook the serious problem of medical care or health service. All of our clients

are medically indigent. Since we were keeping our ambulatory residents integrated in a neighborhood, we turned to the already existing medical facilities in the community, such as the out-patient departments of nearby hospitals. My counselor has an excellent knowledge of medical resources which exist for those who can pay but little, if anything. Through the trial-and-error method of development, we finally hit upon the services of the Council of Catholic Nurses. We requested them to have a nurse call once a week and make her services available to seventy persons in one neighborhood stop. We now have Dr. Robert McKnight, on a voluntary basis, to supervise whatever medical or health service we give. This is not a clinic. It might be called a campus medicine chest where a sickly person may go to receive proper referral, the early detection of disease and treatment of the every-day aches and pains. Our doctor visits us bi-weekly and supervises the entire part of our medical program. When Dr. McKnight is not on campus, the nurse or my counselor may consult him by phone. We now have a medical record on every campus resident. Since only ambulatory clients are cared for on campus, our program will never give full medical care to the resident. At least we are putting these indigent old people in touch with some medical care. We also have taken steps toward a positive approach through talks on health, diet and safety.

Other Problems

This paper will not permit me to go into all of the social problems encountered since Kundig Center opened its doors as an activities recreation center with a full-time counselor. I must mention, however, such other problems as lack of proper clothing, family problems, legal difficulties, lack of finances and need for someone to bury them. We have practical solutions for these.

Throughout this article I have used the word "campus." I have done so purposely because I believe it is a fresh approach, a new concept in caring for the aged. Since it is a brand new idea, I looked around for a word that would adequately convey my meaning. I have chosen the term "campus" because it connotes something very positive in most of our minds. A campus is a place to which we move where we satisfy all of our human needs within walking distance. In a comparatively small walking area we find ourselves properly housed, fed, and in touch with a doctor and nurse. We have a counselor available for advice. We find ourselves getting enough exercise because we walk outside in the fresh air in carrying out our routine of everyday living. We live in a semi-protected environment. We are independent and yet not alone. On a campus we learn new things; we meet and enjoy new friends; there we find security. This is my campus residency program for Senior Citizens offered by Kundig Center.

EXERCISE IN AGING

(Continued from Page 1452)

ress or increase of coronary atherosclerosis. Further research as to this possibility is in order.

Thus, in conclusion, it may be said that exercise of almost any kind, suitable in degree and duration for the particular individual concerned, can and does play a useful role in the maintenance of both physical and mental health of the aging individual but that no hard and fast rules can be set, because each person requires individual appraisal.

264 Beacon Street, Zone 16

The Presbyterian Village

By P. C. Gittins, M.D., and
Elmer L. Bringard, M.D.
Detroit, Michigan

FOR many years, church organizations have provided housing and some of the necessities for older people. During the last quarter century the fondest dreams and plans of the past generations are being fulfilled. In keeping with this progress, United Presbyterian Homes for Retired people have been built and are in process of construction in different parts of the United States. Projects of this type are part of the answer to the needs of older people and to many of the 225,000 United Presbyterians who will be over sixty-five years of age by 1960. Many of them provide for their own care with their families, but some must select a proprietary home or even some type of institutional housing. It is evident that many of these aging people prefer to be identified with a home which is directed by their own religious group because it not only provides housing and three meals a day, but also allows for friendly associations, activity programs and spiritual satisfaction that is not always found in commercial and institutional nursing homes. These concepts and the need for doing something constructive in providing care for aging people were the motivating influences that brought about the start of the Presbyterian Village of Detroit in 1945.

Because of the leadership and foresight of the Presbytery of Metropolitan Detroit, sufficient funds were raised to purchase forty acres of land from the Hoobler estate to start the project. Three acres of the land were given as a site for the Village Presbyterian Church of U.S.A., and two acres were taken over by the Redford Township Board of Education for a school playground.

The future plans for the village are to develop the entire area with a separate building for convalescent and rehabilitation care and with one-story housing of three types: (1) Single dwelling; (2) Apartments; (3) Group dwellings with single living rooms.

The original Hoobler home, a building of early American architecture, had a capacity for fifteen persons, and was used as the Presbyterian nursing home until the first additional buildings were erected in 1955 and 1957. Now the apartments and communal type buildings are able to accommodate sixty-five residents. The future plans will provide for a village population of over four hundred.

In the roomy well-landscaped area there are three buildings each with sixteen rooms, which have either a shower or a bath to each room. Each building is connected with a common corridor, which leads to the dining room, kitchen, and lounge.

There are three apartment buildings and it is possible to accommodate two persons to each unit, or some may prefer to live as a single occupant.

The original Hoobler house has been remodeled and is used as the medical center and for the arts and crafts activities. The first floor of the home has twelve beds and is equipped to provide convalescent care for the residents and short term nursing care for non-residents. The basement houses a beauty salon, quarters for physical medicine and for the crafts program.

The Presbytery and the Board of Trustees, which are elected from the member churches, are responsible for the direction of the management of the village. They endeavor to maintain financial soundness and this is done by contributions and a pay-as-you-go plan. Each Presbyterian Church provides a small amount per month according to the church membership. This makes it possible to provide care for those who are unable to pay full costs. Each resident who has complete care in the group living arrangement pays a stated amount each month for board, room, meals, minor laundry and nursing service. Those living in the apartments pay a nominal rent plus cost of utilities. They provide for their own housekeeping and meals, but they may arrange to eat in the dining hall as often as they wish.

Activities

Every prospective resident is carefully considered by the admissions committee. It is the desire of the board and staff that the applicant be in good health so that they may be able to participate in the village activities. A well conducted program

of activities provides for a healthy state of mind so that anxieties do not become a focal point of their interests.

The average age of the residents is eighty-one years, the youngest is sixty-seven, and the oldest is ninety-five. Some have a limited capacity and desire to take part in their program of activities. Individual freedom is always preserved, no one is required to participate, but most find satisfaction in doing so. Regular instruction is given in some of the arts and crafts. Some may prefer current event discussion groups, or music appreciation, gardening, or trips to points of interest. They may go to places of their choice and use their own automobiles if they are able to obtain a driver's license. Some take vacations for short periods, but we notice that they always like to come back home. The church auxiliaries have their regular scheduled programs at the village, thus supplying friendly community contacts.

Spiritual contentment starts long before a person is a resident of the village. This is maintained by continuing with church affiliations and the regular visits of the assigned clergy.

These are some of the ways that living at the village broadens areas of interest, maintains healthy attitudes, and provides a sense of belonging to the community.

Medical and Nursing Care

Every well conducted project for care of aging people must anticipate need for medical and nursing care. The successful progress of the congregate living type of home depends on the basic health of the resident on admission. The initial history and physical examination is important, but it is also necessary to provide for a maintained interest in the health of the individual. The alert nursing staff, the regular calls by the village physicians, which includes physical medicine, completes the continuity of medical care.

In a village-type home, whenever an illness requires extra nursing care, it is necessary to have a convalescent facility available and easily accessible. Presbyterian Village has such a facility for short term and chronic care, and experience shows that there is a continuing need for this care.

The village concept for supplying housing for older people is not new. It is a new architectural arrangement in the process of development by this church organization. It involves similar responsibilities which must be assumed when managing multiple-story type homes.

We believe that better health and satisfaction can be maintained by the village-type home for older people providing there is compliance with all the requirements for complete care.

MEDICINE'S RESPONSIBILITY TO THE AGING

(Continued from Page 1454)

The medical profession must provide good medical care within the means of the older person. Otherwise the politicians will take the initiative and develop a comprehensive, but less desirable, plan of their own. Physicians must recognize the need and be willing to co-operate in a desirable idea.

"As we look, then, to the future, the medical profession will have to work with other scientific and social agencies in attacking the multiple problems caused by the increasing number of older people in our population." Many of these older people are looking to us for a desirable plan for medical care within their means and we should not fail them.

18605 Birchcrest Drive, Zone 21

Medical Education in This Geriatric Age

By Frederick C. Swartz, M.D.
East Lansing, Michigan

THE groping of a developing civilization to feel better and to explain certain personal physical phenomena led to participation in magic and witchcraft. The conservation of certain recognized values for the preservation of the individual and the race brought religion and the effort that was to be medicine very close together. Emerging from this collaboration has come the profession of medicine with the avowed and undying purpose to care for the ill. Hypocrates said, "I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patient and abstain from whatever is deleterious and mischievous."

This oath of Hypocrates became the foundation upon which the thinking and conduct of medicine was built. The wisdom of this course is testified to by the panorama of medicine which confronts us today. The absence of major epidemics, the control of others and the increasing life span represent major accomplishments of medicine.

It would be a mistake to infer that the subject of this paper is entirely new. At the dawn of recorded medicine a sketch of the crutch is found, indicating primitive attempts to treat the aged and the infirm.

Through the years there were more urgent tasks to be dealt with, however, and infant mortality, maternal care, and infectious diseases became the battleground of progress. The young man going into medicine volunteered his services for this kind of conflict. His training was largely toward this end. Medical care and hospital construction were tailored to this need. This was as it should have been.

Let us now consider the impact of the so-called "problem of aging" on medicine.

In 1955, the American Medical Association established the Geriatric Committee of the Council on Medical Services. At the first meeting of this committee, it was decided that there were practically no diseases characteristic of the older group. It did not follow, however, that the older group did not have medical problems. It was felt, however, that these problems did not vary significantly from the medical problems of people in general. Therefore the term "Geriatric" did not express the committee's real field of activity. The object of the committee's interest was the sick older person, the frail or fragile older person who was on the verge of becoming sick, and the well older person who could benefit from periodic health appraisals to the extent that by guided exercise and nutrition his health could be maintained.

Therefore, the entire older group came under the scrutiny of medical interest. The name of the committee was changed by the American Medical Association to the Committee on Aging. Since health is most always influenced by the environment in which the individual lives, this too became an integral part of the committee's activity. The older person's work and working conditions, his education, food, exercise, housing, relatives, friends, finances, insurance, and retirement were studied so that the doctor's wisdom and experience could be used to care for the total patient.

Today, many other disciplines are becoming alerted to needs in this field, disciplines that, by virtue of their training, are supposed to take care of one or another facet of the problem. Frequently, however, due to the enthusiasm of these disciplines and the lack of interest and guidance on the part of medicine, they become the tail that wags the dog. The patient is divided into parts for each discipline and the profession which is best trained to care for the "whole patient" waits to be consulted. Modern medicine can no longer sit back. The doctor must, from the wealth of his knowledge and experience, come forward with a positive health program. He must learn to use the other disciplines by direction and prescription as he has learned to use insulin or tranquilizers. He must, in addition to caring for the needs of individual patients, contribute his share toward the solution of the total health problems of his community. Finally, since medical care has become such an

Read at the May-Day Clinic of the Ingham County Medical Society, May 7, 1959.

important subject for labor, management and political conversation, he must be prepared to enter the political arena to represent and defend the rights and privileges and health of the people. No one is better prepared than the doctor to do this.

To accomplish these results we need more doctors and this leads us to a re-appraisal of the position of medical education.

The needs of the older person, the care of the chronically ill or disabled and the problems of rehabilitation indicate how urgent the review of medical education has become. Some medical deans deny the existence of any significant problems of aging. Chronic disease and disability are all too frequently considered the result of degeneration for which there is no remedy. The idea of rehabilitation has yet to penetrate the medical and surgical services of some large teaching institutions. *One wonders if it is not time for the precepts and methods of medical education and the professional educator to be scrutinized and tempered by consultation with the private practitioner.*

In the recent past, Russia put the world's first satellite into orbit. The resultant hue and cry concerning the shortage of engineers, physicists and mathematicians shook our educational system to its very foundation. This need, coupled with the requirements of industry for bright young men, is giving medicine some telling competition. Dr. Perren Long, Chairman of the Department of Medicine, State University of New York, pointed out that in 1950 and 1951 40 per cent of the students accepted for medical school had "A" scholastic records in college. Between 1955 and 1956 only 15 per cent had "A" records. Dr. Long further states that this decrease in "A" students means that 7,000 fewer "A" students have been admitted in the past five years to medical schools and that such a loss may[9] well be felt in the quality of teaching and research in the next decade.

According to the House Interstate and Foreign Commerce Committee, 907 foreign doctors entered the United States in 1955. This number about equalled the number of graduates of ten American medical schools. A stream of this size, if continued for long, will dilute the ideals and philosophy of American medicine.

Dean W. D. Rappleye of the faculty of medicine of Columbia University made the following statements in regard to the service of foreign trained interns and residents:

> "At the present time over 25 per cent of the house staffs in the hospitals of the United States are alien. The percentage in a few states is over 50 per cent. It has been recently reported that between 5,000 and 6,000 foreign trained physicians will enter the country this year compared with a total of 6,977 graduates from all American medical schools. Most of the foreigners will be graduates of unapproved medical schools. In many sections of the country there are now two classes of citizens as far as medical services are concerned, those cared for by physicians who have had a satisfactory preparation for medical practice and those cared for by physicians who are graduates of substandard medical schools."

The Council on Medical Education in Hospitals of the American Medical Association made the following statement with respect to the existence of an overall physician shortage in its report of 1954-1955:

> "No one will deny the fact that with a constantly growing population and with the ever-increasing health consciousness of the nation there will be a constant and continuous demand for increased numbers of medical personnel and this will necessitate new medical schools and possible augmentation of faculties and faculty personnel of those now in existence."

Some of the specific needs for physicians are as follows: Physicians are needed in medical specialties, in governmental and institutional programs and in rural areas. In the testimony before the Committee on Interstate and Foreign Commerce it was indicated that the nation needed between 7,000 and 12,000 additional psychiatrists. A shortage of 1,720 physicians has been reported by full time local health departments. This survey indicated that[5] 849 of these departments needed additional physicians to meet the minimum standard of a public health physician per 50,000 of population or at least one public health physician for each local health unit. In October, 1956, there were 119 vacant budgeted positions for physicians reported by the United States Public Health Service. The unfilled budgeted vacancies for positions in veterans' hospitals and outpatients' totaled 356 as of December 26, 1956. On March 31, 1956, the Veterans' Administration reported that it required 364 additional psychiatrists. The medical schools reported 251 unfilled faculty positions in 1955 to 1956. Rural areas[1] have had to go to unusual ends in order to try to find medical attention for their people.

Dr. Vernon W. Lippard, Yale University School of Medicine, said that 25 new medical schools will

be needed by 1975 to provide 2,000 more physicians annually. This would only be enough to maintain the present physician-patient ratio.

Mr. Alan Gregg writing in the *Scientific American* in September, 1951, attempted to assay the need for doctors. He maintained that the shortage of doctors in the future would be determined by the services they would be expected to perform. He goes on to say:

"Medicine has much more to offer today than it used to have. A Harvard biologist chemist, Lawrence J. Henderson, once remarked that somewhere around 1910 the progress of medicine in America reached the point where it became possible[4] to say that a random patient with a random disease consulting a physician at random stood better than a 50-50 chance of benefiting from the encounter. In the forty years since then, the chances have improved a good bit beyond that. The 14 million Americans who served in the military forces in World War II were given a notable demonstration of how far medicine had progressed. Among our military personnel during that war there were only six deaths from diseases per year for every 160 such deaths in World War I, 250 in the Spanish American War and 650 on the northern side in the Civil War. To turn to an example from civilian life, Chicago twenty years ago had 6,012 reported cases of diphtheria with 513 deaths while in the last year 5 cases were reported with no deaths. The more doctors can do for people, the larger becomes the demand for medical services. We are thinking now not in terms of demand for medical care but in terms of need for medical care. It is suggested that the unrecorded need far exceeds the recorded demands. In the decade from 1940-1950 we added 19 million to our population. At the current ratio of one doctor to 850 civilians this population increase alone would call for 23,000 more doctors than we had in 1940 and the need may continue to rise at a comparable rate in the coming decades as our population continues growing. The enlargement in enrollment in the medical schools which has taken place in the past to the extent of about 1,000 per year for the nation could not possibly provide the number of new physicians that are needed by the growing population, that is, at the ratio of one doctor to 850 civilians."

Between 1955 and 1956, there were 14,937 applicants for medical school of which about one half were accepted to fill the freshman classes to capacity. The Association of American Medical Colleges has stated that while some existing schools with enlarged facilities might be able to accept additional students, increased capacity for training medical students must be brought about primarily by the establishment of new schools. By 1965, the number of applicants to medical schools will have increased to 21,837. The ratio of applicants per 100,000 population as of 1955-1956 was 8.7 applicants from the continental United States while the training capacity per 100,000 population as of 1955-1956 was 4.6.

In estimating the need for doctors in the future, there has been no reference to the medical needs in the field of politics. We do not mean the appointive jobs, but the elective and policy making ones. Such jobs are vantage points from which medical men can advise and influence the electorate. Among the signers of the Declaration of Inpendence, there were five physicians. Since that time the profession's interest in this important side of American life has been neglected. The voice and thinking of a thousand medically trained individuals scattered through the state and the national government would surely have a beneficial effect.

To avert disaster, to stave off medical eclipse at home and abroad, to safeguard the high standard of American Medicine and American Institutions, to protect and serve the American People in their health needs, and to furnish adequate facilities for the host of sorely needed medical students, we believe that a *newly conceived* and a *newly dedicated idea* of *medical education must be created and given the opportunity to provide new and fresh stimulus to medical education.*

From the viewpoint of the family physician and with apologies to the medical educator, the following framework for a new medical college is humbly submitted.

This hypothetical college of medicine would have a campus of its own. The college would be made up of all the classes of the premedical students, the medical students proper, the graduate students and fellows in medicine and surgery, the intern and resident staff of the college hospital, the part and full time instructors and professors of the premedical and medical science courses, and the part and full time instructors and associates who would be necessary to round out a complete medical unit.

This type of organization would change the character of the work of the committee on admissions. High School Students with above average grades and with good personality potentials would be admitted. During the first two years teaching, molding and testing could be carried on so that the better candidates could be selected to continue in medical courses and specialties, while the others could be counseled to change their courses.

By eliminating summer vacations, it would be possible to give the complete work for a bachelor degree in three years. Dr. Osler said, "The hardest conviction to get into the mind of the beginner is that the education upon which he is engaged is not a college course, not a medical course but a life course for which the work of a few years under teachers is but a preparation."

All the scientific subjects required of the premedical student would be given on the campus of the medical college. Subject matter in the basic sciences would not be abbreviated but would be taught as fully as in any such course presently offered by universities. However, their implications and connotations relating to medicine would be specifically emphasized. Part of this premedical scientific preparation would be the immediate follow-through. The student, with newly learned principles well in hand, would be conducted to the hospital and clinic where he could witness these principles in action. During the approximately three years of premedical preparation, he would live on the same campus with the medical students, interns, residents, and other medically orientated individuals. He would begin to get the feel of his profession immediately after leaving high school. He would, as it were, live, eat and sleep within the discipline. There would be no effort made, however, to divorce him from the atmosphere of the ivy covered towers of classical education. He would be encouraged to participate in this part of college life also, because many of his later successes in medicine will depend upon his understanding of humanity and its needs rather than upon scientific medicine.

Mason Pusey, President of Harvard University, has this to say:

> "The doctor has become more than a doctor. He is a doctor and sociologist, scientist and humanist, investigator and administrator, psychiatrist, wise man, philosopher and friend. And more perhaps than these. What is sought today is not the stuffed head but the broad interest and awareness and with these an informed inquiring mind."

The basic sciences of medical education would also be re-organized. The usual courses in anatomy, histology, physiology and chemistry as well as pathology and bacteriology would be woven together into a mosaic that would teach system anatomy, chemistry, physiology and pathology. This would mean that the student would have for his subject matter for a period of a week or two one division of the body, during which time he would study the anatomy, histology, chemistry, physiology, pathology and possibly bacteriology of that division. As he pursued this subject, he would be taken over with the upper classmen to see certain pathological features in order that he might fit his immediate basic knowledge into the medical curricula which he would be following in the near future.

At the same time the teaching of some of these basic courses would be revised so that long hours spent over the microscope would be largely eliminated. Much of anatomy, histology, pathology could well be taught by colored slides. Only a few specialists actually continue to use the microscope to any extent in later life. Anyone of the underclassmen who might have an idea that he was planning to specialize in surgery could take a longer specialized anatomy course. Anyone who thought he might be a pathologist or a bacteriologist or an anatomist could take the longer course in this respective field which would train him in the use of the microscope. But the average practitioner, the family physician, would not need such detailed courses. If at the time of his medical training he was not quite sure in which area he would be specializing, he could take this matter up when he came back to the hospital for specialized resident training.

This modification of curricula and the full year training schedule ought to bring, in three years of medical training, a very well trained, strongly oriented candidate for an M.D. degree.

At this point we would suggest that awarding of the M.D. degree, much like the Ph.D. degree, depends to some extent on the solution of an original research problem. There is nothing that tries the ingenuity more or crystallizes the thinking processes better than to go through a research procedure. This can be accomplished at any time during the medical college course.

This type of medical student would have a bachelor of science degree at the end of the first three years. He would have a bachelor of medicine degree at the end of three more years. Upon the completion of recognized internship, an M.D. degree would be granted.

The type of hospital facility that would best fit into this modern type medical school would be a well equipped small acute hospital unit which would be operated in the immediate vicinity of a much larger chronic hospital or dormitory type

unit. This would have in connection with it a rehabilitation center. Also in the immediate vicinity but somewhat removed from the acute hospital would be the convalescent home and the home for the aged. This entire unit would constitute the facilities used for teaching of the medical student. Patients for this unit would come on a *referral basis* from the doctors of Michigan and nearby states. Needless to say, this type of hosiptal organization would be functionally constructed and would freely use the intensive care and recovery room ideas.

The internship offered in this type of institution would follow the traditional lines so far as we know at the moment, but would also be flexible enough to fit into any modification that modern training might demand.

Because this type of institution would be getting the doctor through the medical school at a younger age, and because we feel that some seasoning and maturity improves the usefulness of a specialist, at least two years of general practice in a small community is suggested before specialized education would be allowed.

This would give this type of medical college an opportunity to make an arrangement with smaller communities to provide them with medical services of a continuing character. This could be done by asking the community to build a small house and office and equip it. Then the medical school would take the responsibility of keeping a young man there two or three years at a time for which he would receive a percentage of his collections after enough was taken out to pay off the community's investment. In order to give this young doctor support in his community work, a team of consultants could make trips at regular intervals to see his problems and to help continue his instruction. Also he would be invited to send his major difficulties back to the hospital for treatment. After several years of this type of experience he would be allowed to return to the university center if he wished further instruction in any specialty that he might choose.

We would like to point out that we have taken a rather serious and critical view of medicine and its needs for the future. Although not quite as dramatic as the Sputnik to engineers and physicists, the impact of the problems of aging and of rehabilitation have given rise to the urgency for a prompt solution for the problems of medical education.

In this state, *the present medical schools have publicly admitted that they are over-extended and that the state needs a new medical college.* Several surveys of the state have revealed the opinion that probably the time was not quite right for this venture. Most of these surveys, however, seem to limit the concept of service of this type of new medical school to the State of Michigan. This is not the design in mind. *This type of medical school would serve a region rather than a state. If there are to be twenty-five new medical schools in the United States, it would seem that the great growing State of Michigan should be well represented in this area.* So far as I am able to learn, Michigan has been a debtor state from the standpoint of health ever since it has been a state. The University of Michigan Medical School and Wayne University College of Medicine combined, graduated a total of 1,900 persons from 1940 to 1949. From 1940 to 1949 the Michigan State Board of Registration of Medicine approved a total of 3,815 applicants to the practice of medicine in Michigan. Of the 2,663 physicians in the eighty-two counties outside of Wayne County, 45 per cent are graduates of medical schools located in the United States outside of Michigan. This difference between production figures and need would actually support a new medical school graduating one hundred new students every year. There is not much doubt that the need exists and if not locally, then certainly on a national scale. By starting now with the perfection of basic plans, a new medical school could be in full operation in four years and graduate its first class in five years. The success of this idea would depend upon: (1) The development of the premedical school along the lines indicated so that in two years it could fulfill its part as outlined: (2) the necessary campus and buildings; (3) the necessary faculty (utilization of retirees from Harvard, University of Michigan, and the Mayo Clinic could do the job nicely to start with); (4) about 400 four-year-loan funds for medical students. The loan funds might be obtained from business firms doing business in Michigan. These would be used as follows: Two years from now we would ask fifty medical schools to admit two extra students every year for three years for which we would provide the loan fund. At the end of three years, all our preparations being complete, these 300 students would come back to the parent college and the school would emerge and fulfill its program in the first year of operation.

In summary then, but not in conclusion, we have presented a brief, incomplete plan for a new medical college. If this plan is so unconventional as to be radical, it is due to the climate created by that great Medical Sputnik, the so-called "Problems of Aging." This phenomenon is trying to remind us of Voltaire's statement, *"Men who are occupied in the restoration of health to other men by the joint exertion of skill and humanity are above all the great of the earth. They even partake of divinity since to preserve and renew is almost as noble as to create."* This phenomenon is also trying to warn us that this mantle is about to be torn from the shoulders of medicine if we who are a part of it do not mobilize behind a forward looking program and meet the challenge.

Bibliography

1. Bunnel, K. P.: Liberal education and American medicine. The Journal of Medical Education, 33: 319-339 (April) 1952.
2. Gibson, William C.: Significant discoveries by medical students. The Scientific Monthly, Vol. 81, No. 1 (July) 1955.
3. Glaser, Robert J.: The evaluation of the applicant for medical education. The Journal of Medical Education, 33:272-283 (March) 1958.
4. From the Medical Education Conference sponsored by the Association of American Medical Colleges and Conference Board of Associated Research Councils, Madison, Wisconsin, June 24-26, 1956.
5. Moses, Campbell, Gregg, Lucien A. and Danowski, T. S.: University of Pittsburgh School of Medicine. The Journal of Medical Education, 33:501-507 (June) 1958.
6. Medical Research—A Midcentury Survey. Published for the American Foundation: Little, Brown & Company, 1955.
7. Poor, R. D.: Volume I, Maclachlan, J. M.: Volume II, Volume III, Volume IV: Planning Florida's Health Leadership. Gainesville: University of Florida Press, 1954.
8. The revised medical program. A new plan to meet the needs of medical education today. Johns Hopkins Magazine, Volume VIII, No. 9 (June) 1957.
9. Robinson, G. Canby: Adventures in Medical Education. A Commonwealth Fund Book. Cambridge: Harvard University Press. 1957.
10. Sanger, W. T.: Education in Medicine and Nursing in Michigan. Prepared for the Michigan Legislature Study Committee on Higher Education. P.O. Box 240, State Capitol, Lansing, 1957.
11. Severinghaus, A. E., Carman, H. I. and Cadbury, W. E., Jr.: Preparation for Medical Education in the Liberal Arts College. New York: McGraw-Hill Book Company, Inc., 1953.
12. Stewart, Blair: Liberal Arts and Medical Education. Oberlin College, Oberlin, Ohio (October) 1957.
13. Turner, E. L.: The education of the physician in the United States, the current scene. The Journal of Medical Education, 33:256-258 (March) 1958.
14. Widening Horizons in Medical Education. Social and Environmental Factors in Medicine. A Commonwealth Fund Book. Cambridge: Harvard University Press, 1948.

215 North Walnut Street
East Lansing 15, Michigan

COMMUNICATIONS

One of the most difficult problems facing organized medicine today is the matter of distributing information within the profession. The passage of ideas from the grass roots to the American Medical Association and, in turn, the distribution of news from the summit to the individual doctor at times seem to be full of frustrations. Yet, it is not surprising that the individual doctor has trouble in keeping abreast of the social-economic changes that swirl in ever-increasing rapidity about his person. Each doctor is interested in his own practice; each has different interests in medicine; each is busy and finds it difficult to keep informed of the scientific changes, let alone those that have to do with the business and social-economic side of medicine.

We are going through a period of great change in the philosophy of prepaid medical insurance. The profession has sold the general public on the desirability of prepaid medical insurance. They are going to continue demanding it and purchasing it. But the scene is changing rapidly and many of the changes are not at all understood or studied by the individual doctor, mostly because of the failure of information to reach him in a concise form or his inability to find time to give it his full attention. Physicians should have in mind and search diligently through certain publications for the trends which are taking place as they are reported. Each issue of the *Journal* of the American Medical Association and the editorial pages of the *Journal* of the Michigan State Medical Society should attract his attention. Committee actions and proceedings of the Council of the Michigan State Medical Society are published in the *Journal*. The president of the Michigan Medical Service is sending each doctor a letter frequently; and, from time to time, our own Oakland County *Bulletin* carries important items that should interest the doctor.

Never before in the history of organized medicine has the dissemination of information to the profession been so important as it is now. Individual doctors can not act alone. Collective action is called for. An informed profession can act together successfully.—Harold A. Furlong, M.D., in *The Bulletin*, (Oakland County Medical Society), March, 1959.

A Comparison of Sanitariums and Psychiatric Units in General Hospitals

By Ralph S. Green, M.D.
Rochester, Michigan

THREE types of facilities exist today for the patient in need of hospitalization for emotional illness. Of these, the largest group, the giant complexes of governmental mental institutions, city, county, state or federal, has created the greatest attention, has been most widely studied and falls outside of the realm of this discussion. The topic will be the field of the private psychiatric hospitals. Such hospitals must adopt for the very justification and goal of their existence the attitude that "There is no excuse for the private psychiatric hospital unless it aims to provide better care than can be provided in a public psychiatric hospital."[1] It must be assumed that hospitals of this nature have something more to offer than the public institutions as proven by the pragmatic fact that they do exist.

Even in this special field, however, heterogeneous as it is, there are two major divisions: the Sanitarium, that is, the autonomous, self-contained and independently operated private hospital, and the Psychiatric Unit, which forms an integral part of a larger General Hospital, and which also deals with illnesses other than the emotional. If the question is asked whether one is preferable to the other, strong opinions are likely to be expressed, at least on one side. Dr. D. Ewen Cameron stated that "The nature and functioning of this singularly effective tool which we have developed, namely the psychiatric division of the General Hospital, requires our closest attention and most continual inquiry for it would seem that it is destined in the immediate future to be the primary and ultimately, perhaps the only area of hospitalization of all patients seeking psychiatric in-patient care."[2] There is, however, on the part of the individuals associated with Sanitariums, serious doubt as to the validity of this statement and the future of the private psychiatric hospitals cannot be so easily dismissed.

A word about the development of the facilities under scrutiny. Our mental hospitals were all sired, to use the biblical phrase, in sin, the sins committed by unknowing and unthinking minds toward fellow humans in almshouses, poorhouses and asylums. It was only when custody function gave way to treatment that real hospitals for the emotionally ill began to exist. Even after this the stigmata and generally poor conditions of such institutions plus the fact that they could not care for illnesses of a less severe, or at least less obvious nature, created a need for private centers. The General Hospitals pioneered and were the first to fill the need in the United States. The opening of the first psychiatric service in the Philadelphia General Hospital in 1732 was the beginning of private hospital care for emotionally ill patients on an organized basis. Other General Hospitals followed suit and then in the nineteenth century the Sanitariums came into being with the opening of hospitals such as the Institute of Living, Brattleboro Retreat and Butler Hospital. Our purpose is not to trace the entire history of the expansion and progress of these institutions. It is enough to state that through existing need for private hospitalization the number of Sanitariums grew rapidly, particularly in the present century. At the same time and at an ever increasing rate, as custodial care changed to active treatment and as the acceptance of the psychiatric patient and psychiatric therapies increased among the medical profession, Psychiatric Units were added to General Hospitals. The figures are astounding. From nineteen hospitals having such units in 1900, the jump was to 584 with 25,000 beds in 1954, the vast majority having been added since the second World War.[3] Of interest is the fact that in 1954, 584 units in General Hospitals reported an average admission of about 450 patients for that year while 176 private hospitals admitted an average of 350 patients for the same period. According to this, in 1954, the General Hospitals took care of over one-half of all mental admissions in the United States.

Presented at the Annual Meeting of the Central Neuro-Psychitaric Hospital Association in Chicago, March 20, 1958.

From The Haven Sanitarium, Inc., Rochester, Michigan.

On the other side of the ledger is a recent estimate that private psychiatric hospitals, that is Sanitariums, although they have only 3 per cent of the total hospital beds, account for 25 per cent of the annual admissions to all mental hospitals.[1] The significance of these data is self-evident.

How then do these two types of treatment centers differ and what are their relative merits? As the individual advantages or disadvantages are discussed, it must be remembered that many of the points to be mentioned do not necessarily apply to an individual hospital; however, they are an attempt to summarize the major points of departure.

Historically, the General Hospital Psychiatric Unit was first. One might speculate as to why this was so. It was felt, no doubt, to be far easier and much more economic to add new wards or to convert existing wards in an already established hospital than to build an entirely new one. The administrative and executive machinery was already set up, many existing departments and functions did not have to be reduplicated. Non-medical and some medical supplies were already available and as a result the per diem cost was less. There was easy accessibility for non-psychiatric medical consultation and the hospital was usually centrally located so that it was accessible to both physicians and patients. Further, there was less stigma attached to entering a General Hospital, even for psychiatric treatment, than in entering a Mental Hospital, public or private.

These factors are still valid today and, as a matter of fact, represent some of the major advantages of the General Hospital Psychiatric Unit over the Sanitarium. They are, to repeat, ease of administration, economy, greater accessibility, and greater public acceptance. One can enumerate further advantages. Most of them, particularly as it applies to Blue Cross, give the patient better insurance coverage. This regrettably represents the medical profession's unrealistic and obsolete attitude toward psychiatric problems. Attitudes are also reflected by the fact that these facilities are often given better local support, partially due to the fact that their patients are drawn from the local community, than is true in the Sanitarium. There is of necessity closer co-operation of psychiatrists with non-psychiatric physicians and as such a barrier is removed in the better understanding of emotional problems. Since such units can and often do function as diagnostic and sorting stations, a quick turnover may result and hence a larger number of patients can be cared for annually. This is not, however, reflected by statistics; as a matter of fact, in 1954 Psychiatric Units showed 10.6 admissions per bed while Private Hospitals had 12.2 admissions per unit.[3] So, although the potential for quick turnover exists, it is actually greater in the Sanitariums.

Nothing has been said so far of the actual direct patient treatment or patient-staff relationship. It is in this area that the Sanitarium has its major advantage. Except for consultants, the staff consists almost exclusively of a homogeneous group of specialists both in its professional and non-professional components. Thus the psychiatrist does not find himself in a secondary staff status nor does the patient run the danger of being discriminated against by staff or fellow patients because of his emotional illness. The staff and administration tends to identify itself more closely with the hospital as related to its special patients and their special problems. Administration becomes more flexible and there is much greater room for independent action for non-psychiatric policies. This is reflected in the relative ease with which changes can be made in treatment policies and other hospital activities. As far as treatment facilities are concerned, the structure and environment of the Sanitarium is designed for the specific needs of mental patients. Hence, there tends to be less of a "hospital atmosphere." This is also often true when a Psychiatric Unit in a General Hospital consists of a separate building; it is not true, however, in the Psychiatric Ward set-ups.

Unfortunately, in many General Hospitals the psychiatric service is still considered a minority unit. It is often set up as a sub-department of Medicine or Neuro-Surgery, or actually becomes a combination Neuro-Psychiatric section. This, of course, does not recognize the fact that the psychiatric patient is decidedly different in his needs from other hospital patients and it is the very basis for the often decried but still prevalent tendency to provide excessive security measures.

Generally the Sanitarium has more extensive ground facilities and the patients have better ground accessibility. Because of this, a more sound basis for occupational and recreational therapy is provided. Because of the homogeneous structure, attitude therapy is more effectively carried out and definitive treatment can be more easily administered. A natural result of this is better staff education and closer supervision of the actual work

done by the psychiatrists. The very nature of the Sanitarium also tends to discourage non-qualified physicians from treating patients therein. Since Sanitariums have more full time specialists than General Hospital units, an intensive twenty-four-hour treatment program by each patient's individual doctor is more easily managed.

A point needing particular emphasis is the unconscious and, in most instances, undesirable tendency, of a hospital to further regression in its mental patients.

It becomes so easy to unwittingly infantilize the patient and the treatment program. Many points might be mentioned, but space permits only the enumeration of an essential one. There is great temptation to be pressed (by the patient's wishes and the physician's own need to please the patients) toward turning the hospital into a hotel. All desires are catered to, the demands of reality are shelved, at least temporarily, and the patient for all practical purposes leads the life of a small child. On the other hand the reverse may be true; the hospital can become autocratic and unyielding like a stern parent and as such again causes further regression and complicates the resolution of problems in the patient. As in the education of children, a limit has to be found which is neither so narrow as to be restricting nor so wide as to be unrealistic and insecurity provoking. This limit must also be somewhat flexible so as to be capable of adjustment to the individual patient.

A lot more work has to be done on this subject, but if equal awareness of this problem is present in a Sanitarium and in a General Hospital, this malignant trend, that of abetting patient regression, can be more easily reversed in the Sanitarium.

Generally speaking then, a Sanitarium has the advantage of having the greater possibility of the two units under consideration to develop and carry out uniform and definitive treatment policies and goals. It is, in other words, more flexible and more easily adaptable. This, incidentally, is also a major advantage which the private hospital enjoys over the Public Hospital.[4]

It seems valid to conclude that there is sufficient need in our present society for both Psychiatric Units in General Hospitals and Sanitariums. Each can fulfill a useful function in the attempt to rectify mental illness. The Psychiatric Unit of the General Hospital is ideally suited to being a receiving, active short-term treatment, and distribution point. If it could be designed and staffed with this purpose in mind, and if it could work in close conjunction with treatment centers equipped to deal with patients on a more long-range and intensive basis, that is the Sanitariums and Public Mental Hospitals, it could become the hub from which spokes run to these other facilities. They in turn could handle those cases which are not really suited to treatment in General Hospitals. Many illnesses such as acute panic states, conversion reactions, and even depressions might be treated, improved, and quickly discharged. Other more severe illnesses would then be transferred to appropriate institutions. It would be something like the handling of battle casualties during the Second World War. Every case went to a Batallion Aid Station, and if necessary from there to an Evacuation Hospital. Diagnoses, often provisional, were made and minor injuries were treated on the spot and sent back to their outfits. Others who needed more complicated and longer treatment were sent on to more specialized hospitals. This comparison is not inappropriate; are our mentally ill not really casualties in the battle of life? Our modern society is one of organization and specialization. Why should the pattern of psychiatric hospitals not be integrated into this situation? There is no need for General Hospitals and Sanitariums to compete for the psychiatric patient, both have a useful and necessary function to fulfill. Both need constant re-evaluation and progress in the service of further developing scientific therapeutics and dynamic expansion for the good of our patients.

References

1. Reed, Phillip B.: The role of the private psychiatric hospital. Mental Hospitals, 9:34-35, (Feb.) 1958.
2. Cameron, D. Ewen: The psychiatric unit of the general hospital. Mental Hospitals, 8:2-7, (March) 1957.
3. Bush, Charles K.: Growth of general hospital care of psychiatric patients. Am. J. Psychiat., 113:1059-1062, (June) 1957.
4. Harding, George T.: The private psychiatric hospital. Mental Hospitals, 8:4-5, (April) 1957.

Present Status of Neurosyphilis in a Large City Hospital

By D. W. Barron, M.D., John S. Meyer, M.D.,
and Benjamin Schwimmer, M.D.
Detroit, Michigan

THE recent report of an outbreak of primary syphilis has renewed interest in the clinical detection of this disease in the United States.[4] Our experience with neurosyphilis at the Detroit Receiving Hospital has caused us to wonder if neurosyphilis may also be on the increase or if relapses are occurring from previously treated cases. Such considerations have promoted this study.

According to a recent survey by the United States Public Health Service, there are two million or more people in the United States requiring treatment for all types of syphilis.[2] The total number of reported cases of syphilis in all stages has risen for the second successive year.[14] In 1955, the total number of reported cases of all types of syphilis was 122,075; in 1956, the figure had risen to 126,219; and in 1957, 135,542 cases were reported. The 1957 data show an increase primarily in late and late latent syphilis. Although penicillin therapy has now rendered neurosyphilis a relatively rare disease, a significant number of cases are still encountered clinically to warrant consideration by the general practitioner, the internist and the neurologist. Untreated neurosyphilis has a grave prognosis, resulting in death or severe disability in the vast majority of cases.[9] The institution of penicillin therapy early in the course of neurosyphilis has now been provn to be curative.[10] Hence, it is still important for the physician to recognize neurosyphilis in its early manifestations.

We wish to report our experiences with ten cases of neurosyphilis encountered in a six-month period on the neurological service of Wayne State University, College of Medicine and the Detroit Receiving Hospital.

Six of the ten cases were found to be active, two were considered inactive, but had been inadequately treated for primary or latent syphilis. The remaining two were inactive or had received adequate treatment for "latent syphilis" although apparently the presence of neurosyphilis had not been previously recognized. Because this represented a relatively large number of active cases for a six-month period, we have explored various possible explanations for such a high incidence. Statistics for the City of Detroit failed to show any significant increase in the incidence of all cases of syphilis reported since 1953. Serological tests for syphilis done routinely on all new admissions at the Detroit Receiving Hospital for the year of 1957 revealed positive results in 7 per cent. This figure has not deviated significantly in the past ten years. We have concluded that the reservoir of primary cases of syphilis has not significantly increased, but a small number of cases of latent syphilis escape early detection and others may have received inadequate therapy at the time of their primary infection. It is possible, but unlikely, that some of the cases reported here may be due to re-infection.

Clinical Material

Ten cases of neurosyphilis were diagnosed for the first time by the neurology service at the Detroit Receiving Hospital during routine consultation for a six-month period between October 1, 1957 and April 1, 1958. All patients had been residents of the Detroit area for ten years or longer and had not recently migrated from other parts of the United States. Six of the patients were white and four were negroes. All but one were men and all were of the lower socio-economic group (Table I). Seven of the ten persons reported a history of venereal disease. A primary lesion had been recognized previously in six of those patients and the other patient reported that he had had gonorrhea and was treated with "hip shots." Of the three remaining, two (Cases 4 and 6) were unable to give an adequate history because of dysphasia and dementia. Case 4 was known to have had a negative blood serology nine

From the Department of Neurology, Wayne State University, College of Medicine, the Detroit Receiving Hospital, and the Lafayette Clinic, Detroit, Michigan.

years earlier. In the remaining case, it is assumed that no primary lesion was observed or that a history of venereal disease was purposely concealed.

TABLE I. HISTORICAL DATA IN TEN PATIENTS WITH NEUROSYPHILIS

Case	Sex	Activity*	Age	Diagnosis	Primary Lesion Reported	Previous Treatment	Duration Present Symptoms
1	Male	Inactive	54	Paresis	1942	Penicillin 1942	Two years
2	Male	Active	47	Paresis	1943	Penicillin 1943	One year
3	Male	Inactive	58	Paresis	None (gonorrhea) 1927	Heavy metal 1927	Three months
4	Male	Active	56	Meningo-vascular	None	None	One year
5	Male	Active	47	Meningo-vascular	Reported date uncertain	None	Three days
6	Male	Active	45	Meningo-vascular	None	None	Two weeks
7	Female	Inactive	53	Tabes	1925	Heavy metal 1925	Seven years
8	Male	Inactive	67	Tabes	1914	Heavy metal 1916, 1926. penicillin 1949.	Ten years
9	Male	Active	52	Tabes	1931	Heavy metal 1931	One week
10	Male	Active	44	Tabes	None	None	Ten years

*As judged by C.S.F. Criteria.

Signs and Symptoms

In the series of cases reported here, the most valuable clinical sign in the detection of neurosyphilis has been Argyll-Robertson pupils (Table II). Provided diabetes can be excluded, this classical clinical sign should seldom be confused with Adie's syndrome.[7] Only three of the patients reported in this series did not have Argyll-Robertson pupils. The three without pupillary abnormalities comprised one case each of the three common forms of neurosyphilis, namely, meningovascular syphilis, tabes dorsalis and general paresis. It is generally believed that Argyll-Robertson pupils are more common in the tabetic form of neurosyphilis.[3] In our experience it is commonly seen in paresis and meningovascular syphilis, in addition.

Changes in mentation were present in seven patients. The three who did not demonstrate mental changes were all examples of tabes dorsalis and two of them were considered to be active (Cases 9 and 10), and one inactive (Case 7). Mental changes included disorientation, paranoid tendencies, perseveration, euphoria, lack of insight, irritability and gross dementia. In addition, three patients showed evidence of dysphasia all of whom had diminution of the left carotid artery pulsation by palpation in the neck. Eight patients had disturbances of gait. One of these (Case 3) had a peroneal palsy which was considered an incidental finding. All but one of the tabetic group (Case 10) demonstrated a wide-based, ataxic gait with a positive Romberg, the exception being Case 9. This patient, who had a coincidental pneumococcal meningitis, exhibited a mixed spastic and ataxic gait. Aside from Argyll-Robertson pupils, cranial nerve abnormalities were not a striking feature. None of the cases reported here showed evidence of optic nerve atrophy. Two of the cases of meningovascular syphilis had a unilateral supranuclear facial paresis. Seven of the cases showed reflex abnormalities. Four showed asymmetry of

TABLE II. CLINICAL SUMMARIES IN TEN PATIENTS WITH NEUROSYPHILIS

Case	Mental Status	Motor System	Cranial Nerves	Reflexes	Sensory Findings
1	Demented, dysphasic	Hemiplegia	A.-R. pupils,* ptosis	Left hyperflexia, left extensor plantar	Unreliable
2	Demented, dysphasic	Normal	Normal	Symmetrical	Unreliable
3	Euphoria, poor judgment, poor insight	Foot drop	A.-R. pupils	Right hyperflexia upper extremities, absent knee and ankle jerks	Peroneal sensory loss
4	Aphasic	Spastic quadriparesis	A.-R. pupils, facial paresis	Hypoactive uppers, hyperactive lowers, extensor plantars	Sensory level below T-10
5	Demented, dysphasic	Hemiplegia	A.-R. pupils, ptosis, facial paresis	Right hyperflexia, right extensor plantar right grasp reflex	Hemihypalgesia
6	Paranoid, disoriented	Spastic, quadriparesis	Intact	Increased	Intact
7	Clear	Ataxic, negative Romberg	Intact	Absent knee and ankle jerks, left extensor plantar	Position, vibration, loss in legs
8	Dazed and listless	Ataxic, positive Romberg	A.-R. pupils	Absent knee and ankle jerks	Position, vibration, loss in legs
9**	Clear	Spastic, quadriparesis	A.-R. pupils	Sucking, grasping, extensor plantars, absent knee and ankle jerks	Position, vibration, loss in legs
10	Clear	Normal	A.-R. pupils	Symmetrical	Hypalgesia and hyperalgesia D4-D10 roots

*Argyll-Robertson.
**Pneumococcal meningitis.

tendon jerks and all of the tabetic patients, except Case 10, had absent knee and ankle jerks. One of the tabes victims (Case 7), in addition, had an extensor plantar response on the left. The motor system was grossly disordered in seven individuals. Motor disorder was found in all cases of meningovascular syphilis, in one case of paresis with evidence of carotid artery insufficiency, and in the tabetic patients. Sensory abnormalities were present in seven cases. However, in two cases (Case 1 and 2) because of disturbed mentation, sensory findings were not considered reliable, but were thought to be abnormal. All those with tabes had sensory disturbances which were compatible with radicular and posterior column degeneration.

TABLE III. SPINAL FLUID RESULTS IN TEN PATIENTS WITH NEUROSYPHILIS

Case	Blood Serology	Spinal Fluid Serology	Cell cu. mm.	Protein mg./100 cc.	Colloidal Gold	Pressures mm. H_2O		Color
						OP	CP	
1	Positive	Negative	0	76	544321000	170	100	Clear
2	Positive	Positive	80 lymphs 20 PMN's	74	555542100	190	145	Clear
3	Positive	Negative	2 PMN's	19	Negative	130	75	Clear
4	Positive	Positive	49 lymphs	76	555431000	190	130	Clear
5	Positive	Positive	80 lymphs	52	444332000	Not available		Clear
6	Positive	Positive	30 lymphs 12 PMN's	108	555320000	180	120	Clear
7	Negative	Negative	0	32	002321000	140	110	Clear
8	Negative	Negative	0	26	Negative	190	100	Clear
9*	Positive	Positive	12,800 95 PMN's	360	—	120	80	Clear
10	Positive	Positive	36 lymphs 9 PMN's	72	111222100	180	120	Cloudy

*Pneumococcal meningitis.

Laboratory Tests

Eight of the ten cases gave positive blood serological tests for syphilis (Kahn or Kline). The two who did not were considered, on clinical grounds, to be suffering from inactive tabes dorsalis after diabetes had been excluded. It has been found by other investigators that 25 to 33 per cent of chronic tabetic patients may have negative serological tests for syphilis performed on blood and cerebrospinal fluid.[3] Two of our cases of general paresis (Case 1 and 3) had negative cerebrospinal fluid serologies. In addition, Case 3 had a negative colloidal gold curve. Both were considered to have an inactive infection on the basis of the cerebrospinal fluid examination, since there was no increase of cells and the serological test for syphilis was negative. Case 1 had been treated with penicillin previously, but we were unable to find any evidence that Case 3 had received penicillin treatment. It is generally accepted that the activity of neurosyphilis can best be judged by examination of the cerebrospinal fluid for increase in white cells and protein as well as the serological titer for syphilis. Six of our cases demonstrated elevated cerebrospinal fluid cell counts and protein levels. These included all the cases of meningovascular syphilis, one case of general paresis, and two cases of tabes dorsalis. One of the tabetic men (Case 9) had associated pneumococcal meningitis which complicated interpretation of the cerebrospinal fluid data. The colloidal gold test showed a first-zone rise in five cases. Two of these cases were diagnosed as general paresis. Both had received previous treatment, but only one (Case 2) was considered to be clinically active. The main indices for determining successful treatment of neurosyphilis should be the decrease in the cerebrospinal fluid cell count and protein followed later by reversal of the gold curve and serological titer toward normal. However, complete cerebrospinal fluid reversibility to normal in neurosyphilis is seldom observed in more than 15 to 20 per cent of patients as late as two to four years after penicillin therapy.[5] Three of the cases of tabes dorsalis had midzone gold curves and the fourth (Case 8) had a negative curve. Our findings in this respect are similar to those of Fiumara and others.[3] Although four cases were considered to be inactive on the basis of the cerebrospinal fluid finding, all cases were given a course of 12 to 20 million units of penicillin except two (Cases 7 and 8) which were considered to be chronic inactive forms of tabes dorsalis.

Illustrative Cases

Meningovascular Syphilis.—Commonly accepted criteria for the diagnosis of meningovascular syphilis include a history of syphilis, a positive serological test for syphilis in the cerebrospinal fluid, an increase in the number of lymphocytes in the spinal

fluid, and clinical signs and symptoms resulting from occlusive vascular disease sometimes associated with meningeal irritation. Only one of our cases in the meningovascular group gave a definite history of primary lesion, but the other two cases were demented and unable to give satisfactory histories.

Case 4. A fifty-six-year-old paint mixer was admitted to the Detroit Receiving Hospital in November, 1957. He was found lying on the floor of his room unconscious by relatives one day after he had returned from work. The day before admission, he complained of "stomach cramps" several times and vomited once. Several relatives reported that he had had a poor appetite for several months and had been losing weight. A blood serological test for syphilis examined in 1940 was found to be negative. He was arrested one month prior to admission for combative behavior and while in jail he was reported to be frightened, preoccupied and his eyes had a "glassy stare." In addition, he had complained of "leg stiffness" for two months.

At time of admission the patient appeared drowsy, lethargic, and was unable to speak. Blood pressure was 130/82 mm. Hg., pulse 60 and regular, temperature was 101.6 F. His neck was stiff and saliva was drooling from the side of his mouth. His eyes tended to deviate toward the left. Both pupils were constricted and did not react to light and accommodation. Optic discs were of good color and there was no papilledema. He smiled inappropriately and there was a right-sided supranuclear facial weakness. Pin-prick response was diminished over the face. There was a mild weakness of the right arm and rigidity of the left arm. Both lower extremities were markedly spastic. Tendon jerks in the upper extremities were diminished and bilateral Babinski signs were present. Pin-prick sensation was absent from D-10 downward. Position, vibration, and light touch sensations could not be evaluated. The left carotid pulse was diminished on palpation in the neck.

Blood Kahn and Kline tests for syphilis were positive. Initial cerebrospinal fluid pressure was 240 mm. of water and the final pressure was 170 mm. after 8 cc. of crystal clear fluid was removed. Spinal fluid cell count revealed 49 cells per cu. mm. all of which were lymphocytes. The cerebrospinal fluid protein was 49.0 mg. per 100 cc. The colloidal gold curve was 55554310. Cerebrospinal fluid serology was positive and examination and culture for tubercle bacillus were negative. Therapy with intramuscular injection of aqueous penicillin 600,000 units twice daily and tetracycline 100 mg. orally four times daily was instituted. The patient received a total of 12,000,000 units of penicillin and showed improvement. However, he is still under convalescent care because of dementia and residual disability.

General Paresis.—The classification of cases of neurosyphilis into the general paresis group was based predominately on signs and symptoms of impaired cortical function particularly of the frontal lobes. These were manifested by personality change, impaired judgment, disorientation, poor insight, and concrete thinking. Other neurologic signs and symptoms may also be present in general paresis, but our clinical classification was based upon manifestations of impaired cortical function. For example, Case 1 showed evidence of carotid artery insufficiency in addition to signs of bilateral frontal lobe disease.

Case 1. A fifty-four-year-old dishwasher was admitted to the neurology service in January, 1958, after "fainting" at work. After recovering consciousness he was confused and disorientated. He was known to have had a positive serology sixteen years before admission and according to his relatives had been treated with an unknown amount of penicillin in 1942. He had been complaining of biparietal headaches for the past two years. During the year prior to admission, he became involved while driving in two automobile accidents which he attributed to "blacking out" spells. Four months prior to admission the patient was observed for the first time to have several generalized seizures and was admitted to another hospital where routine blood serologies were not done. A ventriculogram was done and interpreted as normal, although the ventricles were noted to be symmetrically enlarged. Apparently the cerebrospinal fluid serological test was not performed. One month after discharge from this hospital he developed several episodes of dysphasia and dyspraxia of two to three days' duration. It was also noted that he was often confused and forgetful.

On examination, blood pressure was 120/60, pulse 84 and regular, and his temperature was 98.8 F. He was disorientated for time, place and person. He was unable to reverse three digits and could not do serial subtraction of sevens from one hundred. He showed perseveration of speech and was grossly demented. Both pupils were small (2 mm.) and did not react to light or accommodation. There were occasional twitches around the mouth. The tendon jerks were increased on the left and a Babinski sign was present on the left. On palpation of the neck, the left carotid pulse was diminished and compression of the right carotid artery for fifteen seconds produced bradycardia and a right-sided seizure. The blood serological test for syphilis was positive. The initial cerebrospinal fluid pressure was 170 mm. of water and the final pressure was 100 mm. after removal of 8 cc. of clear fluid in which no cells were present. The total protein was 62.8 mg. per 100 cc. and the gold curve was 5443210000. Spinal fluid serological test for syphilis was positive. Although no cells were present in the cerebrospinal fluid, his disease appeared to be progressing and he was treated with 600,000 units of procaine penicillin twice daily for twelve days (total 14.4 million units). In addition, he was treated with dilantin in order to control seizures. During hospitalization and following discharge he has shown improvement although he is still demented and requires supervision by his family.

Tabes Dorsalis.—The group of cases we have classified as tabes dorsalis showed signs and symptoms due to damage to dorsal columns and posterior roots. Two of the four cases of tabes dorsalis reported here were considered active (Cases 9 and 10). However, interpretation of the cerebrospinal fluid data in Case 9 was complicated by intercurrent pneumococcal meningitis.

Case 8. A sixty-seven-year-old unemployed laborer was admitted to the Urology service in January of 1958 for a urethral stricture. He stated that he had had syphilis in 1924 and had been treated with "606" at that time. In 1926, he received a series of "hip shots" and in 1941 he received typhoid fever therapy. In 1949, he began to notice difficulty in climbing the stairs in the rooming house where he lived. This was particularly difficult in the dark and was becoming progressively worse. He went to another hospital in 1949 and received twenty-six injections of penicillin. His difficulty in walking at night did not improve and he also complained of "shooting pains" radiating from both feet to his knees. In 1956, he began to have trouble urinating. He was admitted to the Urology service of the Detroit Receiving Hospital in July, 1957. Blood serological tests for syphilis done at that time were negative. A transurethral resection for prostatic obstruction was performed.

He was seen in neurological consultation in October, 1957. Physical examination at that time revealed blood pressure 128/64, pulse 60, temperature 98.6 F. Mental examination was normal except for apathy and poor insight. The optic discs were normal. The pupils were irregular and reacted very sluggishly to light. Gait was wide-based and ataxic and Romberg's sign was positive. Heel to shin test was poorly co-ordinated. The upper extremity reflexes were hypoactive and there were absent knee and ankle jerks. Pain sensation was absent on compression of the Achilles tendon. Touch and vibration sense in the lower extremities were diminished and position sense was also absent. Reported blood serological tests for syphilis were negative. Initial pressure of cerebrospinal fluid was 190 mm. of water and the final pressure was 100 mm. On Queckenstedt test, there was no block and on examination of the fluid, no cells were found. The total protein was 26.6 mg. per 100 cc. of fluid and the colloidal gold test was negative. The patient was considered to be suffering from arrested, inactive tabes dorsalis.

Discussion

Analysis of ten recent cases of neurosyphilis from a large city hospital and of statistical data relating to the incidence of syphilis in the same hospital for the past ten years has not supported the view that neurosyphilis is increasing in incidence or that there have been significant relapses in cases given adequate treatment previously. A small, but significant, number of untreated cases of neurosyphilis still may be detected, however, and are likely to continue to occur in spite of availability of effective forms of therapy. In addition, cases of neurosyphilis that have been given adequate treatment earlier continue to deteriorate in spite of showing no evidence of active infection.

We have been impressed, in the group of cases reported here, with the common association of cardiovascular syphilis in association with neurosyphilis. Two of our cases had syphilitic heart disease and three had clinical evidence of stenosis of the internal carotid artery in the neck. In one case, this resulted in hemiplegia with fatality in spite of penicillin therapy. We have seen one other case, prior to the present study, with meningovascular syphilis in a woman thirty-five years of age resulting in hemiparesis and aphasia that did not improve with penicillin therapy in spite of arrest of the syphilitic infection.

The relationship of syphilitic arteritis as an occasional cause of occlusion of the internal carotid artery has recently been emphasized by Symonds.[11] One of us has also examined a patient with meningovascular syphilis in whom the vascular lesions were predominantly in the distribution of the basilar artery. In reviewing pathologic studies of basilar artery thrombosis, syphilitic arteritis of the basilar artery is not an uncommon cause of infarction of the brain stem.[1,8] It is important that the group with syphilitic arteritis of large cerebral vessels should be recognized because penicillin therapy does not result in the same degree of improvement as in uncomplicated forms of meningovascular, tabetic and paretic forms of neurosyphilis. Furthermore, in spite of eradication of the spirochete by treatment, such patients are liable to show continuing deterioration as cerebral atherosclerosis and impaired cardiac function further embarass a damaged cerebral circulation. We believe that Case 1 is an example of continued deterioration, in spite of eradication of infection, due to progressive cerebrovascular disease associated with stenosis of the left carotid artery owing to arrested syphilitic arteritis.

While the characteristic pathology of general paresis and tabes is clearly not vascular, many of the transient neurological signs commonly seen in paresis and meningovascular syphilis (transient dysphasia, hemiplegia, quadriplegia, dysarthria) which have been variously termed syphilitic apoplexy or Lissauer's encephalopathy may be due to

transient cerebral ischemic attacks consequent upon syphilitic arteritis.

Treatment

Treatment of syphilis in all forms should be based on a thorough knowledge of the biology, epidemiology, and pathology of the disease. In a disease whose natural history is the lifetime of the patient, final evaluation of any therapeutic agent must await several decades. Nevertheless, every indication points to a biological cure in the majority of early cases of neurosyphilis adequately treated with penicillin. It has been our practice to use procaine penicillin in treating patients hospitalized because of neurosyphilis. The total dosage administered varies from 12 to 15 million units. Where possible, the penicillin has been given over a twenty-one day period. Other investigators have reported successful treatment of neurosyphilis using between 6 and 10 million units of penicillin.[12] In treating latent serologically-diagnosed syphilis on an out patient basis, effective treatment may be instituted by giving a single dose of benzathine penicillin G., 2.4 million units once weekly for three or more weeks.

Since seropositive titers may persist for as long as ten years in 70 per cent of patients with late latent and late asymptomatic syphilis, the best index of response to treatment is obtained by doing serial spinal fluid examinations.[10] These are done during treatment and after discharge. They should be repeated at three to six-month intervals during the first year depending upon the response to treatment as shown by quantitative blood serological titers and spinal fluid examinations.[13] Indications for a repeated course of treatment are the recurrence of symptoms attributed to the syphilitic disease process itself or a rise in serological titers. Spinal fluid relapses have been reported to occur after three or four years in cases of general paresis and tabes dorsalis. Repetition of treatment was followed by only slight improvement in 5 per cent of those cases treated.[6] Eight of our ten patients were treated with procaine penicillin. One patient, Case 5, expired in spite of therapy from massive cerebral infarction. Both the active tabetic patients showed clinical and cerebral spinal fluid signs of improvement at the time of discharge. However, immediate clinical signs and symptoms of remission do not necessarily correlate with cerebral spinal fluid signs of treatment response in all cases. Two of the three cases of meningovascular syphilis showed good response to treatment. Other investigators have reported that 58 per cent of persons treated for paresis show clinical and social improvement;[10] our results of treatment were similar. The patient in Case 1 was re-admitted to the psychiatric service in April, 1958, because of assaultive and aggressive behavior. Visits to our outpatient clinic reveal that Case 3 is making a better social adjustment.

Summary

Ten cases of neurosyphilis diagnosed during a six-month period at a large city hospital have been reviewed in detail. It is emphasized that new cases of neurosyphilis requiring treatment are still encountered. Six cases of the ten were active and required treatment. Two others had not received adequate treatment.

This study did not support the view that there is an increasing incidence of neurosyphilis or that relapses occur after adequate (10 to 12 million units) penicillin therapy. Possible factors responsible for detection of adequately treated patients are discussed. It is concluded that syphilitic arteritis of large cerebral vessels such as the carotid and basilar arteries may result in impaired cerebral circulation which is not improved by eradication of the infection. Cerebral atherosclerosis and impaired cardiac function may further impair a damaged cerebral circulation with further deterioration of the patient.

There is a reservoir of infectious syphilis existing today in most communities. Alert clinical and laboratory detection methods will enable early diagnosis and treatment of all forms of syphilis. Routine blood serological tests and routine serological tests for syphilis on all specimens of cerebrospinal fluid that are obtained should be performed in all hospitals. The wise physician should exclude neurosyphilis in all rapidly dementing and ataxic processes and in cerebrovascular disease.

References

1. Biemond, A.: Thrombosis of the basilar artery and the vascularization of the brain stem. Brain, 74:300, 1951.
2. Brown, W. J.: The status of venereal disease control in the United States. Presented at the U. S. Public Health Service Venereal Disease Seminar, Detroit, Michigan, February 20, 1957.
3. Fiumara, N. J.: Syphilis and its management. New England J. Med., 254:1173-1182, 1956.
4. Fiumara, N. J., and Shinberg, J. D.: An outbreak of gonorrhea and early syphilis in Massachusetts. New England J. Med., 256:982-990, 1957.

(Continued on Page 1538)

Adjunctive Use of Meclizine-Pyridoxine (Bonadoxin) in the Prevention of Preoperative and Postoperative Nausea and Emesis

By M. D. Bentley, M.D.
Cadillac, Michigan

THE choice of effective medication in the prevention of preoperative and postoperative nausea and vomiting is imperative in ocular surgery. In preoperative procedures a combination of sedatives, analgesics, and an anti-emetic preparation is advantageous since it prevents excessive anxiety of the patient, and also facilitates induction of general anesthesia, and ease of administering local anesthesia and akinesia. However, the focus of attention must also be directed toward postoperative medication when even moderate retching or emesis may cause irreversible complications. This is when the addition of an anti-emetic agent to sedative and analgesic preparations is most effective. After a careful survey of several antihistaminic preparations, we found that a tablet* containing meclizine hydrochloride 25 mg. and pyridoxine hydrochloride 50 mg. was best suited for our purposes. By adding this tablet to our usual postoperative medication we achieved more satisfactory voluntary immobilization of the patient, thus avoiding straining and possible hemorrhage. Such procedure is of utmost importance after cataract extractions since hemorrhage may cause severe damage or even permanent blindness.

Clinical Procedure

This controlled study concerns itself with three groups of patients: (1) cataract extractions, (2) various intraocular surgeries and, (3) various extraocular procedures, totaling 157 patients. Since prevention of nausea and vomiting in cataract extraction cases is the most important of the three groups, they will be discussed in more detail. Prior to the use of the meclizine-pyridoxine preparation, we administered meperidine, barbiturates and occasionally atropine, if necessary, in the usual doses based on the response of the patients. These agents were later used as controls in this study (Table I). Although most of the patients responded well to a combination of sedative and analgesic preparations, they did not provide the desired state of postoperative immobilization. After several clinicial trials it was found that two

TABLE I. RESPONSE TO BONADOXIN AND TO CONTROL DRUGS
(157 Patients)

Type of Surgery	None	Minimum	Moderate	Severe	Total Patients
Cataract					
S+A+B	39	4	0	0	43
S+A	3	4	2	0	9
General intraocular					
S+A+B	19	1	0	0	20
S+B	5	4	0	0	9
General extraocular					
S+A+B	29	0	0	0	29
S+A	25	21	0	1	47
Total	120	34	2	1	157

Note: Moderate or severe nausea or vomiting may cause severe hemorrhage and blindness.
Key: S—Sedatives.
A—Analgesics
B—Bonadoxin.

tablets of the meclizine-pyridoxine preparation the night before the operation and two tablets the morning prior to surgery would be adequate for preoperative measures. Postoperatively, the patients received the tablets b.i.d., one in the morning and another at night for three days. In all cases the meclizine-pyridoxine preparation was given adjunctively with the above-mentioned sedatives and analgesics. In younger patients, medication was reduced accordingly. During the postoperative period, utmost care was taken in keeping the patients comfortable. A high cleansing enema the night before surgery eliminated the need for bowel movements for three to four days in order to avoid straining, postoperatively. It was also seen that following the use of the meclizine-pyridoxine tablets the patients in all cases tolerated postoperative immobility with fewer complaints and less emotional disturbances.

Results

Because of the excellent results we have had with the meclizine-pyridoxine tablets we are using them routinely in all cataract cases and other ocular surgery. Since we have added this prepara-

*Bonadoxin supplied by the Medical Department, J. B. Roerig and Company (Div. Chas. Pfizer & Co., Inc.).

tion to our routine procedures, the danger of postoperative nausea and vomiting has been reduced dramatically.

Our data show that owing to the additional administration of the meclizine-pyridoxine tablets to the sedatives and analgesic drugs none of the forty-three patients who have had cataract extractions experienced moderate or severe nausea or vomiting (Table I). The four patients who had minor discomfort did not strain themselves sufficiently to cause serious complications. Of the nine patients who were used as controls, two had moderate retching and vomiting, while four experienced minor discomforts. The statistics in general intraocular and extraocular surgery likewise point up the advantage of using the meclizine-pyridoxine preparation and show that control studies with sedatives and analgesics alone were much less effective. No side reactions due to the addition of the meclizine-pyridoxine preparation were observed.

Chemistry and Pharmacology

The chemistry and pharmacology of meclizine and pyridoxine has been discussed previously.[9,10] Summarizing these studies it was noted that meclizine is a long-acting antihistaminic with a low toxicity. This compound induces a pronounced action against motion sickness, as measured in human beings by a depressive effect upon the excitability of the labyrinth and vestibular-cerebellar nerves.[4]

Pyridoxine, likewise, has a very low toxicity and has been pronounced useful in biochemical mechanisms. For example, intracellularly, pyridoxal phosphate combines with specific protein enzymes, and the combination can act as transaminase, decarboxylase and desulfurase.[12]

Thus, pyridoxine provides raw material for the tricarboxylic acid cycle which is one of the most important energy sources in the body. In addition, the vitamin has been found effective in the treatment of postoperative vomiting.

A reasonable response to pyridoxine alone in nausea and vomiting of pregnancy,[13] and radiation sickness[11] has been reported in the literature. Bergman[2] administered this vitamin intravenously prior to and after abdominal surgery, wherein he used ether as an anesthetic agent. According to the author, the administration of pyridoxine was successful, since only slight nausea and no vomiting occurred in his patients. A more convenient and improved preparation was used by numerous clinicians who found that the combination of pyridoxine and meclizine in tablet form was most beneficial for the prevention and treatment of hyperemesis gravidarum,[3,5-7] for preoperative and postoperative nausea and vomiting,[1] and in radiation sickness.[8] The addition of meclizine to pyridoxine in a therapeutically balanced ratio is, apparently, responsible for the improved action.

Summary

An anti-emetic preparation in tablet form containing meclizine hydrochloride and pyridoxine hydrochloride was found clinically effective in the prevention of preoperative and postoperative nausea and emesis in 157 patients who underwent ocular surgery, while the control drugs alone could not completely eliminate the symptoms. The addition of the meclizine-pyridoxine preparation (Bonadoxin) to the regimen also effected more adequate voluntary immobilization of the patients. This is especially imperative in the postoperative phase of cataract extractions, since strain may cause hemorrhage, or prolapse of intraocular contents and possible subsequent blindness. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study.

References

1. Albertson, H. A., et al: Prophylaxis of postoperative nausea and vomiting. Am. J. Surg., 92:423 (Sept.) 1956.
2. Bergman, W.: Relief of post-anesthetic vomiting through pyridoxine. Canad. M. A. J., 56:554, 1947.
3. Codling, J. W.: Bonadoxin in nausea and vomiting of pregnancy. Northwest Med., 57:331, 1958.
4. Council Pharmacy & Chemistry: Meclizine hydrochloride. J.A.M.A., 159:1205 (Nov. 19) 1955.
5. Crawley, C. R.: Clinical experience with Bonadoxin in hyperemesis gravidarum. Western J. Surg., 64: 463 (Aug.) 1956.
6. Goldsmith, J. W.: Bonadoxin for nausea and vomiting of pregnancy. Minnesota Med., 40:99, 1957.
7. Groskloss, H. H., et al: Bonadoxin: A unique control for nausea and vomiting of pregnancy. Clin. Med., 2:885 (Sept.) 1955.
8. Lofstrom, J. E., et al: The treatment of nausea following therapeutic irradiation. Western J. Surg., 65:306 (Sept.-Oct.) 1957.
9. P'an, S. Y., et al: Pharmacological properties of two new antihistaminics of prolonged action. J. Am. Pharm. A., 43:653 (Nov.) 1954.
10. Tartikoff, G.: The antiemetic function of Bonadoxin in the nausea and vomiting of pregnancy. Clin. Med., 3:223 (March) 1956.
11. Van Haltern, H. L.: Use of pyridoxine hydrochloride in radiation sickness. Radiology, 47:377, 1946.
12. Vilter, R. W.: Vitamin B_6 in medical practice. J.A.M.A., 159:1210 (Nov. 19) 1955.
13. Wienstein, B. B., et al: Oral administration of Pyridoxin hydrochloride in treatment of nausea and vomiting of pregnancy. Am. J. Obst. & Gynec., 47:389, 1944.

120½ East Cass Street
Cadillac, Michigan

Wheezing in Young Infants Associated With Dust Exposure

By Samuel J. Nichamin, M.D.
Detroit, Michigan

THE differentiation of wheezing in infants under one year of age with respect to etiology often constitutes a perplexing problem. Because it represents a cardinal feature of bronchial asthma, wheezing in this age group immediately poses the question of a true or allergic form of obstructive emphysema. The breathing distress of a wheezing infant generates great concern in parents, often requiring emergency measures. The aphorism "all is not asthma that wheezes" is especially pertinent in the young infant. Notwithstanding the frequency of attacks of asthmatic bronchitis in infancy, the incidence of true, allergic asthma is surprisingly low. The initial dyspneic symptoms of the latter condition are much more commonly observed during the third and fourth years of life.

In a review of 151 cases of the "wheezing chest" in children, Schwartzman and Nau[5] noted forty-eight cases under one year of age. A positive allergic history was obtained in only one-third of the cases. In ninety-two cases (61 per cent), non-allergic elements were the etiologic factors. An increased eosinophil count was noted in only 11 per cent; and only 5.3 per cent had positive nasopharyngeal smears. Such a predominant role of non-allergic factors in wheezing encountered during infancy coincides with our experience in a group of patients whose cases are presented herewith.

Wheezing respiration, often associated with marked dyspnea, was noted in this group of infants under one year of age, who had been subjected to a heavy or unusual exposure to dust-containing articles in their immediate environment. No previous respiratory disturbances of any type had been present in their respective past histories. Furthermore, they revealed none of the manifestations or stigmata of the allergic state, such as eczema, seborrheic dermatitis, persistent rhinitis, or any food "intolerance." Allergy was not a conspicuous item in the family history.

From the Department of Pediatrics, Wayne State University College of Medicine, and the Children's Hospital of Michigan.

Confronted with a young infant acutely dyspneic, having noisy, wheezing respiration, one must seriously consider the various conditions that simulate bronchial asthma. Of these, it is most essential to eliminate at the outset the possibility of a foreign body in a bronchus or the esophagus. A careful history will serve to exclude many of the conditions listed in a table by Glaser,[1] covering the differential diagnosis of bronchial asthma in infancy and childhood. Further, searching inquiry into possible dust exposures may eventuate in "hitting pay dirt." Interrogation of the parents should encompass any recent acquisition of stuffed or fuzzy toys, the near presence of feather pillows, as well as close contact with rugs, draperies, mattresses and bed covers.

The pertinence of such information regarding massive contact with various dusts was pointed out to the parents, in order to establish a "dust-conscious" approach in the disposition of their baby's environment for the future. Recurrent attacks of wheezing could be, and were, thus avoided. The fear of the anxious parents of a true or allergic asthma in their progeny could thereby be dispelled. In order to illustrate the primary role of unusual or massive dust exposure in the causation of wheezing attacks of infants the following cases are herewith cited. The absence of any form of allergic manifestations in these patients prior to their attacks or in their subsequent history is especially noteworthy.

Report of Cases

Case 1.—A three-month-old boy developed an attack of dyspnea with wheezing. There were no prodromal symptoms of fever, rhinitis, or gastrointestinal disturbance. The physical examination was essentially negative, except for the chest, which revealed prolonged, expiratory breath sounds with wheezing. Musical rales were not heard. Complete disappearance of the wheezing and respiratory difficulty occurred following an injection of 0.1 cc. of epinephrine. Upon questioning the parents it was learned that a recently acquired stuffed toy elephant had been placed in the infant's crib. Admonitions respecting this and other fuzzy-type toys were carefully adhered to by the parents, and no further attacks have ever subsequently occurred. This patient is now eight years of age, and has received close periodic medical

supervision throughout infancy, the pre-school period up to the present school years. Evidences of allergy, as represented by persistent rhinitis, eczema, hay fever, or asthma has never been observed.

Case 2.—Stridorous, wheezing respirations were first noted at the age of six months in this infant girl, who had had no previous respiratory difficulties or infections. Physical findings were entirely limited to the chest, which exhibited noisy, wheezing breath sounds. An immediate beneficial response was noted after the administration of 0.1 cc. of epinephrine. The history revealed that a fuzzy, stuffed toy had been placed in close proximity to the infant. This child is now ten and one-half years old, and has been under our health surveillance at periodic intervals. Careful investigation for any allergic symptoms or manifestations has yielded no relevant or supporting data.

Case 3.—The despondent parents of this five-month-old boy with severe dyspnea were on the verge of rushing him to a hospital for emergency admission. The profound respiratory distress was associated with marked audible wheezing. There had been no fever, or other premonitory symptoms. Involvement with foreign body was denied. One-tenth cc. of epinephrine administered hypodermically resulted in rapid amelioration of all the respiratory symptoms. Interrogation of the parents revealed extremely pertinent information. The mother had recently resurrected an infant's nightgown that had been reposited in a cedar chest for a number of months. The above-mentioned symptoms were noted almost concurrently with the initial usage of this garment. Three years have now elapsed with no incidents or symptoms suggestive of an allergic nature.

Case 4.—Since early infancy, this six-month-old baby girl had exhibited stridorous, wheezing breathing, often associated with episodes of vomiting. These symptoms were attributed by their family physician to "excessive mucus." There had been no overt evidence of allergy, or any previous respiratory illnesses. The patient was afebrile. Examination of the chest revealed moderate retraction of the lower costal borders, audible wheezing, and raspy, prolonged expiratory breath sounds. Parenteral injection of 0.1 cc. epinephrine resulted in considerable improvement in the infant's breathing. Elicitation of environmental data revealed that a sibling's adjoining bed contained a torn comforter as well as feather pillows. With elimination of these objects, the mother reported that there was practically complete disappearance of her baby's wheezing and stridorous breathing in addition to marked lessening of the vomiting.

Case 5.—A six-month-old boy afflicted with Mongolism, had an acute onset of breathing difficulty with many asthmatic rales and wheezing. There were no previous or concurrent allergic manifestations. Inspection of the infant's crib revealed the presence of several old, dirty, fuzzy toys, in addition to a recently-purchased new blanket. Complete removal of all dust-containing articles together with the use of an oral ephedrine preparation resulted in disappearance of the asthma-like symptoms. During the ensuing six months and up to the present, no further attacks have occurred.

Case 6.—This eight and one-half-month-old infant girl had coughing and wheezing for several days unaccompanied by fever. A watery rhinitis was apparent, but no other findings of consequence. Marked relief over a temporary period was obtained with the administration subcutaneously of 0.1 cc. of epinephrine. On questioning, the mother described the contents of her baby's crib, which included various fuzzy toys: dog, teddy-bear and rabbit. A tear in the crib mattress was also reported. With elimination of these sources of dust, no further wheezing was noted.

Case 7.—Dyspnea and wheezing were the presenting symptoms of a four-month-old girl. Aside from the respiratory difficulty with some costal retraction, no other abnormal findings were present. There was no history of skin rashes or food intolerance. Almost immediate disappearance of the wheezing and dyspnea occurred following the hypodermic administration of 0.1 cc. of epinephrine. The mother related that a fuzzy lamb toy had always lain in the baby's crib. However, with the recent acquisition of her ability to reach out for objects, this toy could then be much more closely approximated to her face. It was during this recent period that the mother first became aware of the infant's wheezing and breathing disturbance. No further attacks of wheezing have been noted since the removal of this dust-bearing object.

Case 8.—This two-month-old infant, the brother of the girl in Case 2, had presenting symptoms of cough, dyspnea and wheezing of several days' duration. The mother had thought that her baby was developing a very severe cold. These symptoms had continued intermittently for three days. There was no fever or loss of appetite. In the history, the mother revealed that for the preceding two weeks as part of spring cleaning, her home had been completely redecorated. Wall-to-wall carpeting had been ripped up, in addition to the underlying felt padding. All drapes, curtains and rugs were removed for cleaning from the baby's bedroom, as elsewhere in the house. Because of her prior experience with the baby girl, there were no fuzzy toys, feather pillows, or uncovered blankets in the baby's immediate environment. Cognizance of the relationship between the spring-cleaning dust and her baby's symptoms, however, soon became apparent, as the history of events unfolded. Examination of the infant revealed rapid, somewhat labored breathing, with wheezing. Asthmatic-like breath sounds were heard diffusely throughout the chest. Complete amelioration of these respiratory symptoms and signs was secured with the hypodermic administration of 0.075 cc. of epinephrine. No further wheezing or any respiratory symptoms have been noted by the mother for the past several months up to the present.

Discussion

The age distribution of cases (Table I) of the infants with wheezing is weighted heavily toward the under six-month age group (six out of the twelve cases). Only two occurred in infants older than six months, the greatest number, four,

TABLE I. SUMMARY OF CASES OF YOUNG INFANTS WITH WHEEZING ATTRIBUTABLE TO INTIMATE EXPOSURE TO DUST†

Case No.	Age (Months)	Sex	Fever and Other Symptoms	Chest Findings	Nature of Dust Exposure	Allergic Signs	Observation Period
1	3	M	None	Dyspnea, wheezing	Stuffed toy in crib	None	8 years
2	6	F	None	Stridor, wheezing and dyspnea	Fuzzy toy	None	10 years
3	5	M	None	Dyspnea and wheezing	Nightgown (cedar chest)	None	3 years
4	6	F	Vomiting	Stridor, wheezing, retraction	Torn comforter, feather pillows	None	3 months
5	6	M	Mongolism	Asthmatic rales, wheezing	Fuzzy toys in crib, new uncov. wool blanket	None	4 months
6	8	F	Cough, rhinitis	Wheezing	Torn crib mattress, fuzzy toys	None	4 months
7	4	F	None	Wheezing, dyspnea, retraction	Fuzzy toy held by infant	None	3 months
8	2	M	None	Cough, dyspnea, wheezing	Spring cleaning: removal of rugs, draperies . . .	None	2 months
9*	7	F	None	Wheezing	Feather pillows, teddy bear	None	6 months
10*	6	F	100.2° R. Teething symptoms	Wheezing	Fuzzy easter rabbit	None	2 months
11*	3	M	Rhinitis	Wheezing	Fuzzy toy	None	2 months
12*	4	M	None	Wheezing, dyspnea	Torn pillow	None	2 months

*Cases 9-12 are additional cases, which, because of limitation of space, are not cited among the case protocols.
†Response to medication: With the exception of cases 5, 9, 10 and 11, all responded very favorably to the parenteral administration of 0.1 cc. of epinephrine. Case 5 received an oral ephedrine preparation, with indeterminate effect. No medication was deemed advisable for cases 9, 10 or 11, because of the mild degree of wheezing exhibited.

being noted at this latter age. These findings accentuate the impression that this form of wheezing represents primarily a tendency more or less restricted to the more immature lung tissue of the younger infants, when exposed to a noxious agent such as excessive dust. Such individuals may not reveal overt allergic symptoms in the future. As regards sex, the cases were equally divided.

The absence of fever or other explicit evidences of respiratory infection is especially noteworthy in this group of patients with wheezing as the outstanding finding. It provides a decisive area of differentiation from the condition it most closely simulates, that of asthmatic bronchitis. For this latter ailment, an intimate association with a true allergic state has been propounded by most allergists. This opinion has been reinforced by the presence in these individuals during infancy or early childhood, of other allergic attributes, as manifested by eczema, hay fever, urticaria, or recurrent bronchial asthma. As noted in the case tabulation and protocols, none of the reported cases evidenced such allergic manifestations, prior, during, or subsequent to their episodes of disturbed breathing. An alert awareness towards disclosure of any allergic predisposition has been maintained over periods ranging from several months to over ten years (Table I).

Aside from asthmatic-like breathing, the infant with asthmatic bronchitis often exhibits chest findings that encompass moist rales, rhonchi, and bronchovesicular to bronchial breath sounds. Such an array of physical signs in the lungs were not characteristic findings in the infants described above. Furthermore, the beneficial response to epinephrine among the latter group of cases was in direct contrast to its effectiveness in cases of asthmatic bronchitis.

Foreign body aspiration, esophageal or bronchial, in the young infant is also provocative of dyspnea, coughing, and audible wheezing, as noted in our series of cases. The history and roentgenograms may be of assistance in eliminating this possibility in questionable diagnostic situations. On occasion, the persistence of such respiratory symptoms associated with those of bronchitis, unrelieved by the usual therapeutic measures, may represent the salient features of an unsuspected esophageal foreign body, as reported in a recent publication.[4] The coughing and wheezing produced by a foreign body lodged in a bronchus, although of non-allergic origin, may closely resemble an attack of bronchial asthma. Toomey and Petersilge[6] described a type of non-allergic bronchitis in a group of children who were subjected to the inhalation of finely pulverized dust. Whistling lung sounds, intractable coughing, and rhonchi characterized the chest findings.

In true bronchial asthma in which the wheezing is caused by an antigen-antibody reaction, it is not often possible to demonstrate these allergens. The diagnosis must therefore be based on essentially clinical grounds. Laboratory aids, such as skin-testing, blood counts, and nasal smears are of no more avail here than in a differential diagnosis for wheezing of non-allergic origin. Because of the evanescent and non-recurrent character of the wheezing in the above-cited cases, it was not deemed feasible to secure roentgenograms of the chest.

The indispensable key to the correct diagnosis of wheezing due to intimate or excessive dust ex-

posure is, manifestly, the history. Interrogation of the parents should be precisely oriented towards specific categories of dust-bearing objects in the immediate environment of the infant. The particulate matter comprising house dust may arise from many sources; dust from draperies and curtains, fuzzy-covered and stuffed toys, fuzz from clothing or blankets, nap from carpets and rugs, stuffing from pillows and mattresses. Each of these sources needs to be enumerated to the parents. Fruitful data of strategic value is thereby often revealed by them.

The possibilities for intimate exposure of young infants to passive dust inhalation are legion in the average modern household, ranging from the ubiquitous fuzzy, cuddly toy animal, to the ripping-up of floor covering during spring cleaning. The inhalation of such unusual amounts of dust particles from whatever source into the bronchi of the young infant provides a noxious affront to these tissues, with the resultant production of spasm, and clinically, wheezing. Chevalier Jackson[3] has stated that in a patient with audible wheezing there is always some obstruction in the larger air passages, with encroachment upon the lumen of the airway. In younger individuals, it is well known that this lumen of the tracheobronchial tree is relatively smaller and more compressible. Ingals[2] noted that the movements of the bronchi are more marked in children than in adults owing to the greater elasticity of the tissues and the lesser calcification of the cartilagenous bronchial rings. Such considerations offer, in part, evidence for the greater tendency towards wheezing in the young, especially when these pulmonary tissues are confronted with unusual amounts of a foreign substance.

Summary

A group of cases of wheezing in early infancy is described on the basis of maximum exposure to dust from various sources in their immediate surroundings. Their differentiation from the familiar asthmatic bronchitis of infancy and childhood, as well as from true or allergic bronchial asthma, is presented.

References

1. Glaser, J.: Allergy in Childhood. Chapter 29, Page 184. Springfield: Charles C Thomas Publisher, 1946.
2. Ingals, E. F.: Respiratory movements of the bronchial tubes. J.A.M.A., 45:1302-1305 (Oct. 28) 1905.
3. Jackson, C.: Wheezing respiration in children. Am. J. Dis. Child., 41:153-157 (Jan.) 1931.
4. Nichamin, S. J., and Gonne, W. S.: Foreign body (paper clip) in the esophagus of a young infant. J. Pediat., 51:197-201 (Aug.) 1957.
5. Schwartzman, J., and Nau, C. H.: The "Wheezing Chest" in Children. Arch. Pediat., 67:149-156 (April) 1950.
6. Toomey, J. A., and Petersilge, C. L.: Dust bronchitis. J. Pediat., 25:25, 1944.

672 Maccabees Building
Detroit 2, Michigan

HOSPITAL DISASTER PLANNING

The American Hospital Association has recommended to state hospital associations that they assist hospitals which are not accredited by the Joint Commission on Accreditation of Hospitals in establishing disaster plans and regular disaster drills; hold institutes to provide guidance to their member institutions which are setting up disaster plans and commencing to conduct regular disaster drills; and advise all member hospitals that, when planning for new or renovated facilities, full attention should be paid to the importance of sound design of facilities which will be used for sorting and handling mass casualties.

AHA has also recommended that state hospital associations assist member hospitals which lack an emergency electric power service by helping them install a standby generator with the aid of a civil defense grant.

A survey is being conducted by AHA of hospitals' standby power systems. This information will be compiled for each state and metropolitan area and will be made available to allied hospital associations to assist them in fostering the installation of emergency sources of electric power to meet peak demands that occur at time of disaster.

School Phobia

By Norman Westlund, M.D.,
and Archie McKinnon, M.A.

Saginaw, Michigan

UNTIL recent years, there has been very little in the literature about school phobia. School phobia, in our series of thirty-three cases, is defined as the inability on the part of the child to attend school because of physical symptoms without physical findings. These children complain of headaches, stomach-aches and vomiting. These symptoms increase in severity when pressure is applied to get the child to go to school.

All of these children were examined by physicians and no physical reason was found for their symptoms yet they were all sick and uncomfortable. In addition, they were all average or above in intelligence. These children are described as hypersensitive to noise, criticism, other people's feelings and are very unsure of themselves.

Basically, school phobia is a separation anxiety involving both the mother and the child. Many of the parents of these children felt insecure and unsure of themselves prior to marriage. Some of the grandparents were indifferent to the parents, while others were inconsistent, oversolicitous and overprotective, never giving the parents an opportunity to become emotionally independent. Parents with this kind of a background frequently are unable to provide a consistent home environment that fosters growth and independence in the child. These parents cannot be consistent or definite in terms of what is expected of the child. This contributes to the general anxiety of the child because he doesn't know what to expect or what is expected of him. Many of the fathers in this series of cases are passive, assuming very little, if any, responsibility in the bringing up of the children. They leave much of it up to the mother and become angry with the mother if the child has difficulties and does not go to school. Some of the fathers seem adequate economically, but spend very little time in family living.

From the Saginaw Valley Child Guidance Clinic, Saginaw, Michigan.

Condensed from a paper presented at the American Orthopsychiatric Association 1958 Annual Meeting.

In some of the cases the child's anxiety goes back to the early months of life. The added responsibility of caring for the baby seemed difficult for some of the mothers. Some of the mothers felt very inadequate and questioned their ability to take care of a baby. When the baby responds to this unsureness on the part of the mother by developing feeding difficulties or inability to sleep at night, it intensifies the mother's anxiety and a vicious cycle develops. Many of these mothers are relatively passive and are unable to set limits to the child's behavior. As a result, the child becomes more anxious because he does not know how far he can go.

Some of these children, in order to be more comfortable in living with their anxieties, develop compulsive tendencies. They are rigid and have difficulty meeting new situations. They try hard to please their parents but they find it difficult when the parents are inconsistent and the children do not know what to expect. As a result, the child sets standards for himself which he cannot attain.

The child develops hostility in addition to the anxiety. He gets angry at his parents who do not meet his needs. He sometimes develops controlling behavior that upsets the parents. He may insist that the mother stay home all the time that he is in school. While there is an element of control, the basic motivation is to reduce the anxiety by having the mother at home. Many parents react to this type of an experience by becoming angry and threatening the child which brings out further anxiety and hostility on the part of the child. The child then feels guilty and thinks he is to blame for the entire situation.

With a basic unsureness in the family environment, the child has difficulty undertaking new situations. Going to school is the first experience that the child has in separating from the mother for any length of time. The trouble may begin in kindergarten or may show up in the later grades. A careful history of children who are first referred

when they are in the sixth or seventh grades shows some separation difficulties dating back to kindergarten or the first grade.

The question arises as to what happens at school that causes the child to project his anxiety on to the school situation. This question is not clearly answered. The school itself is an anxiety-producing experience for many of these hypersensitive children. Many feel they will fail their subjects even though the report cards show all A's and B's. Their anxieties are kept high much of the time and it doesn't take much to precipitate an additional amount which is more than they can tolerate. Report cards stir up anxieties in parents as well as in children. We have seen mothers lose five or six pounds just before the report cards are due. Some teachers use the threat of a report card to stir up anxiety in some of the children to do better work. This may work with some children, but it intensifies the problems of this group of children.

To some of the children the school is a noisy and confusing place. To others, it represents a competitive environment which stirs up anxiety. The school also represents a place where the child must stay for a definite period of time. He cannot go home when he feels the need of reassurance from or regarding the mother. This seems to be an important factor in the situation because many of these children seem to be relatively free from anxiety when they are not in school and can check to see that the mother is all right. Our records show a variety of precipitating factors such as: The teacher scolded the whole class and the noise was too much for the child to tolerate; several had the flu and found it difficult to return to school when the physical symptoms had subsided; some could get along well with the regular teacher but when one or more substitute teachers came in, the child was unable to return to school.

These experiences may be just enough to upset the precarious equilibrium in a child who is not very sure of himself. Here again, the parents are unable to give enough security and reassurance to the child for him to return to school at that time. Many children have similar experiences at school, but with the help from more secure parents they are able to return to school with a minimum of difficulty. The child senses the mother's unsureness and reacts to the mother's need for him not to go to school. Some parents encourage or promote further anxiety in these children to fulfill their own unconscious needs. Some cannot turn off anxiety-provoking television shows, even when the child is reacting night after night with nightmares. Some mothers read the newspaper stories of accidents, assaults, attacks, and the like when the child sees the pictures and cannot read the details. Some mothers are content to have the child at home and do nothing further about seeking help.

Treatment is directed toward both parents and the child in an endeavor to lessen the anxiety and encourage their growth and independence. The school personnel also takes part in the treatment in terms of special programs as indicated. The family physician or pediatrician sometimes prescribes symptomatic medication as indicated.

In our series of thirty-three cases, twenty-four children are now attending school while nine are not in school. The duration of treatment varied from a few weeks to three years.

349 S. Weadock
Saginaw, Michigan

CHICAGO SOCIETY OF ALLERGY

The Mid-West Forum on Allergy will hold its third annual meeting on October 31 and November 1, 1959, at the Sheraton-Blackstone Hotel, Chicago, Illinois. This meeting of the Forum is sponsored by the Chicago Society of Allergy. For further information, please write to Leon Unger, M.D., 185 North Wabash Avenue, Chicago 2, Illinois.

Editorial

AGING HAS VALUES

Society has undergone important changes within comparatively recent times. Modern medical men have contributed of their skill, knowledge and dynamism toward improving life and its living. Among the important contributions have been modern sanitation and better control of communicable diseases, improved obstetrics and child care, and the recent consideration given to problems and diseases of aging with the resultant prolongation of life, health and usefulness of an increasing number of them.

The rising generation is attracted to new scientific knowledge and development. Members of this generation may look upon ancient wisdom as being obsolete, when in reality this is not entirely the case. In some primitive societies, the old men often were members of the ruling council because of their accumulated wisdom. Many of them spent their late maturity teaching the children of the family, group or tribe about the legends, myths, ceremonies, rites and other knowledge. The patriarch was a valued member of the community. Through his efforts the old culture was passed to the new generation.

In the more advanced society of our times, with increased population, increased economic conflict and increased competition for work opportunities, there has been some restriction on individuals working after sixty-five years of age on the allegation that they were not very productive. This is a serious social problem. Apparently even the prodigious enterprises of the country cannot employ all of its citizens. Arbitrary retirement at any particular age is not realistic, for men age at different rates and their years are not good criteria of their mental and physical capabilities.

Aging persons do not like to be classified as belonging to an old age group on the basis of their years alone. While some old persons may be somewhat disabled because of illness, there are many aging persons who are in good health. The dependency of the aging has been overstressed and the cultural contributions which old age can make have been undervalued. If aging persons could be kept integrated with other individuals of all ages in the family and at work, it would contribute much to their feeling of security.

The security of the aging is assailed also by threats to their physical independence by the degenerative diseases. Sudden cerebrovascular changes with impairment of speech, sight and voluntary muscular movement are potential hazards to the aging. The realization that ill health at any age is an abnormal state and that many conditions respond to treatment may help some aging persons to gain a better prospective.

Aging is inevitable, but many aging persons retain good health, and those who become ill can be treated regardless of age. Such persons can contribute a great deal to society if an opportunity can be contrived.

Aging has values.

Charles Sellers, M.D.

MICHIGAN'S PREPAID MEDICAL CARE

The Michigan State Medical Society and its House of Delegates, at the Annual Session in Grand Rapids the last of September, faces a grave challenge. Health problems and health policies have been building to the point where an immediate and acceptable solution is imperative. Since the AMA resolution of December, 1958, the care of senior citizens has become a prime object of discussion everywhere. Newpapers, magazines, conferences, broadcasts have stressed the need of care for the aging population. Certain groups have made this problem their special goal. Labor leaders have agitated for special benefits in labor management negotiations; they have also agitated for the Federal Congress to enact into law other sections of the famous Wagner-Murray-Dingell programs of the depression, the Roosevelt, and the Truman years. This would have set up a compulsory medical service in the United States and abolished the private practice of medicine as we know it.

For the last six or seven years, this agitation has not been so open, but it is still in the background. The Wagner-Murray-Dingell program has been enacted piecemeal. Two years ago, in

Swan Song

President's Page



W. B. Wallenstrand

President
Michigan State Medical Society

Usually, the last presidential message of the outgoing President on this page each year is of the "Thanks-for-all-the-help-I-did-my-best-and-goodbye" variety.

It's natural that this should be so, for all during the year the President has had to goad and push and urge and sell (and even be critical on occasion) in order to keep the Society in top momentum; consequently, when he is about to turn over the reins of office, he seeks a graceful exit line, complete with very genuine expressions of gratitude to colleagues and staff.

I am no different. I am just as relieved, just as grateful and just as unable to express my mixed emotions perfectly as were my forbears.

But I do want to say one more thing. It's this:

The best days of our Society lie ahead. We shall move into new and beautiful headquarters next year. We shall celebrate soon our 100th year of service. We are approaching a greater rapport with other professions and, with it, new responsibilities and challenges. We are growing in numbers, strength and influence.

This enviable position has been gained in some part by the devoted work of MSMS presidents through the years. As past presidents, I have found their help and advice to be steadying and wise. As senior statesmen, they know better than to ask for jobs—but they can perform a very real service to succeeding officers. I hope they will be used more and more as the asset they are and can be.

I consider it a privilege and a pleasure to join their ranks as a freshman.

an editorial in July, 1957, we stated that over 33,500,000 were then eligible for national health service. Recently, the Forand amendment to the social security act has threatened to add another 16 to 20 million to the list. The *United States News and World Report,* July 23, has sketches showing that living costs have gone up in the course of a year. The main sketch shows a rise of total costs up just under 1 per cent. There were eight other groupings: food, transportation, housing, personal care, clothing, recreation, medical care and others. Medical care showed a very marked increase—more than any of the others. That, of course, included hospital costs as a major part of medical services.

The *United States New and World Report* for the following week had a page devoted to finance week: "New Goals for Welfare State," "Bigger Pensions," "Earlier Retirement," "Free Medical Care."

"Old age pension checks may soon be made bigger and easier to get for millions. Pressure is building up for action on this next year. Congress has not withstood the pressure in any election year since back in 1948."

Also on a red background are listed the latest plans for old people, higher benefits, hospital care, earlier retirement, higher limit on earnings, aid to the disabled, children's benefits, higher taxes.

The threat to private practice of medicine is growing by leaps and bounds.

A Local View

The *Battle Creek Enquirer and News* on July 9, had an editorial calling attention to a proposed new program, with the Washington, D. C., date line, mentioning "fixed medical charges with a basic relative value scale," and asked why the Michigan State Medical Society did not consider this program. The newspaper editor was contacted and two or three hours were spent with his feature writer. On July 21, the following editorial appeared:

Congress has shelved a bill to provide federally-financed health insurance for the aged. It may, or may not, be revived next year.

Meanwhile, our population of aged people is increasing steadily. Many of them if striken by illness or accidental injury today, would be totally dependent on relatives or county and city welfare agencies for their medical care.

This is not the type of problem that can be solved by a fixed formula. Many of our older people have, by hard work and wise handling of their money, been able to retire with a "nest egg" large enough to see them through their remaining years despite emergencies. But millions not so fortunate must eke out the rest of their lives on social security pensions. Others, and we wonder how many there are in this category, draw no social security benefits and have no "nest egg." They are wholly dependent on children and other relatives even for the barest necessities.

If these latter two groups of aged require medical and hospital care, to whom can they turn? Obviously not to the government unless the Department of Health, Education and Welfare, and Congress, decide that these oldsters deserve more than they're getting now.

We oppose the welfare state concept, particularly because of the abuses that inevitably multiply when people think they're getting something for nothing. But, let's look at the facts before we reject the idea of health insurance for the aged.

In 1900, the average life expectancy at birth of United States citizens was 47.3 years. In 1957, this expectancy had increased to 69.3 years. To complicate the situation further, the 1957 figure gives the average man an expectancy of 66.3 years compared to 72.5 years for the average woman. And in many cases, the aging woman has much less to live on in old age than do men in similar circumstances.

Our aging population has increased almost five times in 10 years (perhaps more if more data were available). In 1948, there were 2,162,000 aging people on social security rolls. In 1957, the total had jumped to 10,678,000 and will rise every year in the future.

Yet, the opposition to providing these old American citizens with some guarantee against medical expenses continues.

Arthur S. Flemming, Secretary of HEW, told a House committee that voluntary coverage (meaning individual, personally defrayed medical and hospital insurance policies) now is held by about 40 per cent of old people. He believed it would reach 70 per cent by 1965.

These voluntary insurance plans are expensive, especially for an aged person whose total monthly pension may be less than $50. Many obviously cannot afford such coverage. And, although Dr. Flemming may be correct on his 70 per cent estimate, how do we meet the problem for the remaining 30 per cent of our aged? At the current rate of increase in their ranks, that could mean six or seven million by 1965, none of whom would have any guarantee of medical and hospital care, nor the financial means to afford it.

Dr. Flemming estimates that such coverage would cost the social security system an additional $1,100,000,000 in 1960. We will spend that much on surplus crop storage this year, alone.

The *Enquirer and News* editor then received a letter explaining that the Michigan State Medical Society already had over 1¼ million people in the state being serviced by the latest Blue Shield features (the M-75 certificate) based upon a relative value scale and was about ready to publish a completely new certificate for the aging population. On Sunday, July 26, an article appeared giving the story of what Michigan is doing. On July 28, the following editorial was published. A complete reversal of attitude and opinion is demonstrated. As a result of having a modern program and of being ready and willing to discuss it with those who are helping to manufacture public opinion:

Michigan Medical Service's forthcoming medical insurance program for the state's senior citizens is welcome news. The plan will bring a great measure of security to those who have faced the problem of old age without the reassurance of guaranteed medical care. It will also relieve the minds of children and other relatives who have worried often and long about how they would manage the financial crisis caused by the illness of an aged parent or other loved one.

There are few, if any, single problems of old age that need solution more than does that of medical care. A parent, or parents, usually can be absorbed into a family without too much additional expense in the daily household budget. As a rule, the other demands—such as clothing, recreation and minor personal items—are comparatively small. But, when accidental injury or illness strikes these oldsters, a family's entire bank account can be wiped out.

So far, a number of state medical groups have recognized this problem and done something about it as recommended last December by the American Medical Association. The first Blue Cross-Blue Shield policy of this type was offered in Wisconsin, Iowa followed and several other states fell in line. Now, such all-important insurance coverage will be available here.

The Michigan State Medical Society deserves praise and the gratitude of all citizens for its role in working out this plan with Michigan Medical Service and the state insurance commission.

For the first time, a person over sixty-five can buy or have purchased for him by a child or relative, an individual medical and hospital insurance policy in this state—at a rate he can afford.

MSMS HOUSE OF DELEGATES

The House of Delegates of the Michigan State Medical Society—the law making, policy-making, part of the Society—will be in session soon after this writing appears. They probably have never faced a more serious and a more demanding accumulation of problems. Michigan Medical Service developed the M-75 program according to instructions of the MSMS House of Delegates and placed it into effect insofar as possible.

We all know there are some features of the program with which some of our members are not happy, and some to which others object. No program of such stupendous importance was ever developed without some dissent. When being established this one built into it methods and opportunity to correct imperfections. Some already have been corrected. Others can be if those especially interested will follow the established and accepted program, make their criticisms and suggestions constructive, and lend their efforts to this end.

The Medical Society is on trial. Remembering what has been done during the past twenty years, the public is looking to the profession to solve almost unsolvable problems. It can be done—it must be done.

MEDICAL PUBLICITY

The public press, magazines, newspapers—always looking for sensational news items—publish articles which are adversely critical of the medical profession. This has been going on so long that when within a few days we see an article defending the profession, taking its part and telling its story, we are constrained to comment upon it. Very recently the editor was approached by a high school senior looking up information on the topic of socialized medicine for an essay, and a junior college debate student saying she had been assigned the medical profession's side of a debate on socialized medicine. Both were asking for information, saying there must be a medical side to the story. Both had searched the available libraries and could find any amount of adverse material going back for twenty-five years and some very recent articles which were critical of the medical profession and its ideals. They were able to find the most meager articles giving the medical profession's side of the story.

We loaned them plenty of material from our own library and both of them made very creditable reports in the schools.

Recently, in looking over the *Ladies Home Journal* for June, 1959, we happened to see a paper by Dorothy Thompson, entitled "Medical Care and Its Discontents." In reading it through, we were very happily surprised at her complete understanding and discussion of the question of medical care and the profession, and believe those of our readers who have access to the *Ladies Home Journal* for June should read the article. We quote one short paragraph:

> "In a rather profound sense the current attacks on the medical profession complement it. People, it seems, expect more of physicians than they do of other professional men with the possible exception of the clergy. The medical profession has invited that expectation, and in the opinion of this writer, and with exceptions that only prove the rule, have deserved it."

It would seem good public relations would be wonderfully served if copies of this article could be made available to all the young people in our schools who are in the formative period regarding medicine and its problems, and who are actively discussing socialized medicine with only anti-material available.

Look magazine also has a very worthwhile article. On February 3, 1959, this magazine published a

(Continued on Page 1508)

Maternal Mortality Study

1950-1954

In the issue of THE JOURNAL of the Michigan State Medical Society for February, 1955, a summary of the maternal mortality studies of deaths occurring in Michigan during 1950, 1951 and 1952 were reported.[1] It is now the intent of the Michigan State Medical Society Maternal Health Committee to discuss these studies through 1954, with various members of the Committee subsequently contributing articles concerning the main causes of maternal deaths.

THIS ARTICLE deals with a series of 630 maternal deaths that occurred during the period 1950-1954 inclusive. We have included those already reported[1] in order to publish the entire group in accordance with the classifications used in "A Guide for Maternal Death Studies."[2]

TABLE I. NUMBER AND PER CENT OF MATERNAL DEATHS BY YEAR DUE TO DIRECT OBSTETRIC AND INDIRECT OBSTETRIC CAUSES*
Michigan, 1950-1954

Year	1950		1951		1952		1953		1954	
	No.	%	No.	%	No.	%	No.	%	No.	%
Direct obstetric	78	67.5	90	62.5	74	60.7	76	62.4	87	65.5
Indirect obstetric	22	19.3	31	21.5	33	27.0	36	29.5	31	23.3
Non-related	12	10.4	11	7.7	7	5.7	4	3.2	9	6.8
Undetermined	3	2.8	10	7.0	8	6.6	4	3.2	4	3.0
Total	115	100.0	142	100.0	122	100.0	120	100.0	131	100.0

*Six cases which proved not to be maternal deaths were studied.

TABLE II. NUMBER AND PER CENT OF MATERNAL DEATHS BY RACE

Year	1950		1951		1952		1953		1954		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
White	84	73.0	96	67.6	100	82.0	84	70.0	93	71.0	457	72.7
Negro	28	24.4	40	28.2	21	17.2	32	26.6	37	28.2	158	25.1
Other	2	1.7	1	0.7	0	0	2	1.7	1	0.8	6	1.0
No record	1	0.9	5	3.5	1	0.8	2	1.7	0	0	9	1.2
Total	115	100.0	142	100.0	122	100.0	120	100.0	131	100.0	630	100.0

TABLE III. QUALITY OF PRENATAL CARE

Year	1950		1951		1952		1953		1954	
	No.	%	No.	%	No.	%	No.	%	No.	%
Good	37	32.2	21	14.8	13	10.7	20	16.7	16	12.2
Poor	58	50.4	83	58.4	77	63.1	70	58.3	82	62.6
None	20	17.4	38	26.8	32	26.2	30	25.0	33	25.2
Total	115	100.0	142	100.0	122	100.0	120	100.0	131	100.0

A *Maternal Death* is defined as the death of any woman from the beginning of pregnancy until ninety days after the termination of the pregnancy, regardless of the manner of its termination.

A *Direct Obstetric Death* is one resulting from complications of the pregnancy itself, from intervention elected or required by the pregnancy, or resulting from the chain of events initiated by the complication or the intervention. These deaths include those due to hemorrhage, toxemia, infection, vascular accidents (such as air or amniotic fluid embolism), anesthesia and others (such as molar pregency and transfusion reactions).

An *Indirect Obstetric Death* is a death resulting from disease originating before, or developing during pregnancy, which was obviously aggravated by the physiologic effects of the pregnancy. In-

cluded among these deaths are those due to cardiac, hypertensive vascular disease and embolism, reproductive tract, hepatic, pulmonary and metabolic diseases and others (such as appendicitis and peritonitis of non-puerperal origin).

and regular prenatal care, and measures should be taken to improve the facilities for their obstetric care.

The quality of prenatal care received is difficult to assess from the records. Since one-fourth

TABLE IV. NUMBER AND PER CENT OF PATIENTS REPORTED AS HAVING HAD PELVIC EXAMINATIONS PRIOR TO THE ONSET OF LABOR

1950		1951		1952		1953		1954	
No.	%	No.	%	No.	%	No.	%	No.	%
46	40.0	58	40.8	49	40.2	43	35.8	64	48.8

TABLE V. NUMBER AND PER CENT OF PATIENTS WHOSE PRENATAL CARE INCLUDED URINALYSIS

1950		1951		1952		1953		1954	
No.	%	No.	%	No.	%	No.	%	No.	%
81	70.4	78	54.9	73	59.8	64	53.3	79	60.3

TABLE VI. NUMBER AND PER CENT OF PATIENTS WHOSE PRENATAL CARE INCLUDED HEMOGLOBIN ESTIMATION

1950		1951		1952		1953		1954	
No.	%	No.	%	No.	%	No.	%	No.	%
61	53.0	64	45.1	49	40.2	38	31.7	54	41.2

Non-related deaths are those occurring during pregnancy or within 90 days of its termination from causes unrelated to the pregnancy, its complications or its management. These include such causes as communicable or infectious diseases, blood dyscrasias, malignancy, suicide, murder and accidents.

This study is an educational and research project, conducted jointly by the Michigan State Medical Society and the Michigan Department of Health.

Table II demonstrates the disproportionately high incidence of maternal deaths among the Negro population of Michigan as compared with those in the white race. While only about 11 per cent of babies born in the state are Negro, their mothers account for 25 per cent of the maternal deaths. Many of these deaths can be attributed to lack of adequate prenatal care and the excessively high rate of abortions, but many appear to have resulted from obstetrical mismanagement. Efforts must be made to impress upon this large sector of our population the importance of early

had received no prenatal care at all, it is evident that there has been a deficiency in the care given the women of this group as a whole. It is also apparent that those women who had poor or no prenatal care accounted for most of the maternal deaths.

Tables IV, V and VI are inconclusive, for in many cases these examinations were reported as having been made after the patient had been hospitalized. While these tables are no criteria by which to judge the quality of the prenatal care, it is significant that as reported more than half of these patients did not have a pelvic examination before delivery; about the same percentage had no hemoglobin estimation, and only slightly more had urinalysis performed. There is an indication that more prenatal pelvic examinations were made in the last year of this study.

It is not unexpected to find, as Table VII illustrates, that more maternal deaths occur in the age group twenty to twenty-nine years, since 62.2 per cent of births occurred during this period. That almost as many deaths occurred in the group

of women from thirty to thirty-nine years of age in the first three years of the study, and more during the last two years may reflect the gradual increase in the size of families. It confirms the well-known fact that pregnancy becomes a greater hazard after age thirty. The gradual increase in the number of deaths in the group of more advanced age may also indicate failure to appreciate the need for prenatal care as parity increases.

Table VIII points out that in 58 per cent of the cases of maternal death, the life of the fetus was also sacrificed. The obstetrician undertakes the responsibility of saving two human lives.

Table IX demonstrates that while the autopsy rate is variable, there has been no significant improvement in the percentage of autopsies performed over the five-year period.

Table X shows that there were, in truth, more maternal deaths each year than were so designated on death certificates. It also shows that there was no significant decrease in maternal death rates.

This study has shown:

1. A need for more adequate records.
2. A need for expanding facilities for preconceptional and prenatal information.
3. The need for better understanding of obstetrical problems.
4. A need for early recognition of complications.
5. A need for more and earlier consultation services.
6. A need for better prenatal care.

The Michigan Mortality Study has as its objective not only decreasing the number of maternal deaths, but also the promotion of the physical and mental health of mothers during and after pregnancy, and the prevention of loss, defect, or disability of the fetus. It has been conducted anonymously and objectively. There has been no critical or punitive motivation.

TABLE VII. AGE

Year	1950		1951		1952		1953		1954	
Age	No.	%	No.	%	No.	%	No.	%	No.	%
15-19	8	7.0	15	10.5	10	8.2	11	9.1	12	9.2
20-29	50	43.5	62	43.7	48	39.3	47	39.1	42	32.1
30-39	34	29.5	53	37.3	47	38.6	53	44.3	64	48.8
40+	23	20.0	12	8.5	14	11.5	9	7.5	13	9.9
No record	0	0	0	0	3	2.4	0	0	0	0
Total	115	100.0	142	100.0	122	100.0	120	100.0	131	100.0

TABLE VIII. FETAL OUTCOME

Liveborn	263	Liveborn	263*
Ectopic	35		
Abortion	40		
Undelivered	117	Fetal loss	347
Stillborn	155		
Chorioepithelioma	2		
Hydatid mole	1		
No record	4		
Total	630		

*A certain number of liveborn infants expired in the early neonatal period.

TABLE IX. AUTOPSY PERFORMED

1950		1951		1952		1953		1954	
No.	%	No.	%	No.	%	No.	%	No.	%
60	52.2	83	51.3	66	54.1	62	51.2	77	58.0

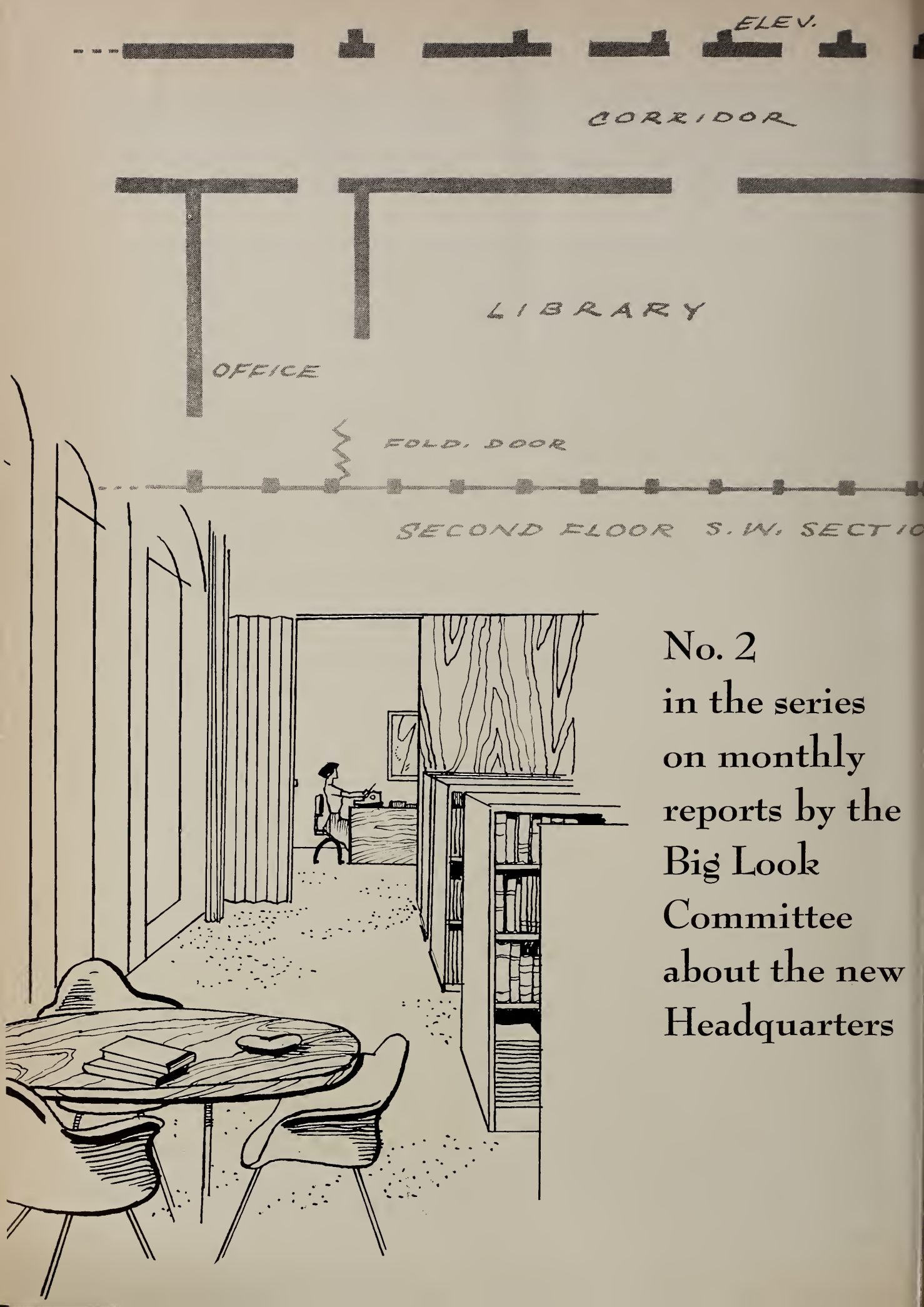
TABLE X. MATERNAL MORTALITY* BY YEAR ACCORDING TO INFORMATION ON DEATH CERTIFICATES AND THAT ASCERTAINED IN THIS STUDY

	1950		1951		1952		1953		1954	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Death certificate	91	5.68	94	5.45	82	4.61	79	4.31	94	4.89
Direct and indirect obstetric causes	100	6.24	121	7.01	107	6.01	112	6.12	118	6.14

*Maternal deaths per 10,000 live births.

Bibliography

1. The Journal of the Michigan State Medical Society, 54: No. 2 (Feb.) 1955.
2. *A Guide for Maternal Death Studies.* Committee on Maternal and Child Care, Council on Medical Service, American Medical Association.



No. 2
in the series
on monthly
reports by the
Big Look
Committee
about the new
Headquarters

THE NEW PUBLIC RELATIONS LIBRARY

When you want to know, you want to know. But until recently there has been no unified facility to provide MSMS members with information on the thousand and one non-scientific subjects of interest to the doctor of medicine.

True, the Public Relations files of MSMS contained vast quantities of material, but distribution to interested doctors was difficult since it was not catalogued and filed in a central location.

Things are different now since the establishment of a PR Library two years ago. And next year when MSMS moves its headquarters to the new building things will be nearly ideal. There, on the second floor, a large room has been allocated to the PR Library. It will be staffed by a part-time librarian who will expedite the requests of doctors and devote study to the acquisition of new material to keep the Library up-to-date on items of current interest to Medicine.

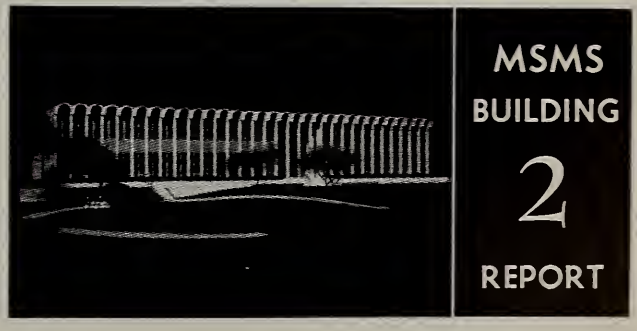
The public, too, will be served by the PR Library. All requests for bookings from the film catalogue will be handled by the librarian and public educational pamphlet and other requests will be a routine service.

Those who will benefit most from the new service are the doctors and the county medical societies. To give you an idea of what can be provided, here is a much abbreviated list: medical-legal reviews, motion pictures, speeches, TV scripts, radio scripts, visual aids, tape recordings, transcriptions, how-to-do-it PR projects, periodicals, newspaper clipping morgue, graphic art, layout ideas, and a compilation of material through the years under headings of "Cost of Medical Care," "Socialized Medicine," "State Legislation," et cetera.

The Library is being constructed in such a fashion that doctors visiting Lansing will have an opportunity to personally use this facility both to review and prepare materials.

The MSMS Public Relations Committee has recommended the publication of a PR Library Catalogue to aid the individual doctor in utilizing the varied services of the new Library. This will be available in late 1959.

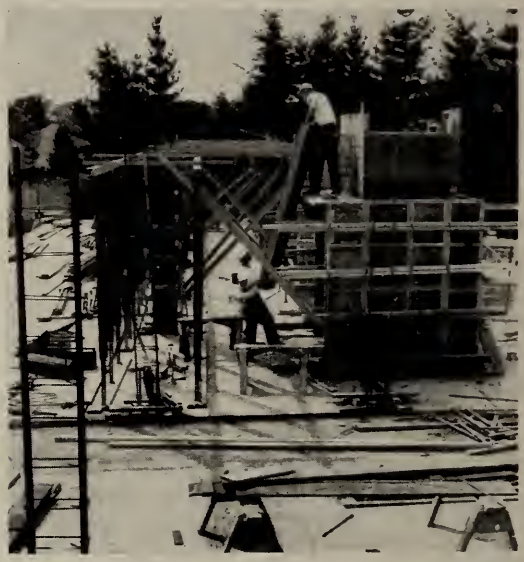
looking AHEAD











MSMS BUILDING RISES

These photographs, taken on August 10, show the new building beginning to take shape. Soon the concrete floor of the second story will be completed. It will rest on the main interior support pillars and temporary exterior wood shoring.

Michigan State Medical Society

Midsummer Session of the Council

July 16-17, 1959

HIGHLIGHTS

Matters of high importance to MSMS members and to the future of the Society were decided by The Council at its July Session. Chief among the matters given consideration by The Council were:

- The Annual Report of The Council was approved for reference to the House of Delegates on September 27, 1959 in Grand Rapids.

- President-Elect Milton A. Darling, M.D., Detroit, announced the personnel of the 1959-60 MSMS Committees.

- T. P. Wickliffe, M.D., of Calumet, was elected Vice Chairman of The Council for the unexpired term.

- Progress report on the new MSMS building being erected in East Lansing was presented by K. H. Johnson, M.D., of Lansing, on behalf of the Committee on Big Look. (1) First payment to the three contractors ($22,606.62), due and payable, was authorized; (2) the liability policy of the Society was broadened to include the new construction; (3) acoustical consultants' service, as recommended by the Architect, was authorized; (4) details of the cornerstone laying ceremonies scheduled for Sunday, September 27, 1959, were outlined and approved; (5) storm and sanitary sewer connections, costing $5,530.20 were authorized (tunneling under M-78 will represent considerable saving to MSMS); (6) The Council authorized Treasurer Wm. A. Hyland, M.D., to establish a credit rating at a bank so that complete financing of the new MSMS building can be carried out during the next twelve months.

  Present MSMS building: Doctor Johnson also reported that Realtor Charles R. Green of Lansing is working on the sale of the MSMS property at 606 Townsend Street, Lansing. Permission to erect his sales sign on the corner of the property was authorized.

- Four new contracts proposed by Michigan Medical Service were presented: Senior Contributory Benefit Certificate (age sixty-five and over); Non-group Community Enrollment Contributory Benefit Certificate; Employment Group Deductible Benefit Certificate; and Group Conversion Deductible Benefit Certificate. After thorough discussion, the contracts, as previously approved by the MSMS Medical Care Insurance Committee, were approved by The Council by a vote of 15 ayes, 5 nays, with 4 abstaining.

  Consultant-representatives of the national Blue Shield Medical Care Plans were invited by The Council to meet with the MSMS Council or its designated representatives to discuss Michigan Medical Service contracts.

  The Council spelled out the function and operation of the Councilor District

Medical Care Insurance Committees in relation to county medical societies in the handling of complaints.

- Medical Case Committee. After full consideration, The Council voiced no objection to the establishment of this committee, as recommended by the Medical Advisory Committee to Michigan Hospital Service (Blue Cross).

- MSMS Group Health and Accident Program. The carrier, Provident Life and Accident Insurance Company of Chattanooga, Tennessee, announced a "claim bonus" beginning November 15, 1959 when all payments on disability claims will be increased by 10 per cent regardless of whether or not the claim had its beginning before or after that date. The Council approved mail notification of the "claim bonus" and expressed its thanks to Provident.

- MSMS Centennial Year. Since MSMS was founded in Detroit in 1865, The Council voted to schedule the 1965 Annual Session in that city. The Chair was authorized to appoint a Centennial Committee to arrange special features for the 1965 Centennial Session.

- Two requests for the MSMS Directory of Members and four for use of the Addressograph were considered and approved.

- Legal Counsel Lester P. Dodd presented several matters including: (1) survey of new MSMS property; (2) legal opinion re privileged communication and the ownership of hospital charts; (3) advice re possible illegal practice of medicine in certain areas of Michigan.

- Confidentiality of hospital reports. The Council felt that the matter of preserving the confidentiality of reports is one of vital concern to the medical profession; the question was referred to the Legislative Committee, which with the aid of Legal Counsel, is to study the problem and, if necessary, develop legislation.

- Nominations for Michigan's Foremost Family Physician Award for 1959 were made by The Council and referred to the House of Delegates. Archer A. Claytor, M.D., Saginaw; Simon Levin, M.D., Houghton; and Siegfried W. Thieme, M.D., of Ravenna.

- The monthly financial report was approved; bills payable were approved and payment authorized.

- Plans for a Forensic Medicine Institute, to be sponsored by MSMS and arranged for all interested members, were given full study; the recommendation to establish this postgraduate course was approved.

- A modification in deadline for MSMS dues, suggested by the Wayne County Medical Society, was thoroughly discussed: The Council recommended that the Bylaws be changed so that a member is not in arrears if he pays 25 per cent of his total dues (county, state, and national) on or before April 1 and completes the payment of his AMA dues by June 30. The remainder of his dues may be paid upon arrangement with the county medical society secretary, but in any case must be completed within the current year.

- The Council approved the recommendation of the MSMS Geriatrics Committee: that county medical societies be urged to develop and/or improve medical liaison with county boards of supervisors and all county groups dealing with the care of patients—to improve patient care and decrease cost of such care, through proper medical advisory services. Close liaison will tend to obviate the disburse-

ment by county boards of supervisors of large amounts of welfare funds for medical purposes without professional medical advice.

- The Council allocated the twelve numbers of THE JOURNAL for the year 1960.

- Request of Oakland County Medical Society for copies of MSMS Council and Executive Committee minutes was given full consideration. The consensus of The Council was that it would be impractical to circulate these minutes because official actions are often misleading unless one is present to gain full background information from the discussion; risk of wrong interpretation is probable unless the minutes are thoroughly understood. Legal pitfalls also were cited. The Council decided that highlights of the minutes of The Council and its Executive Committee shall be sent to all county medical society secretaries, upon request.

- Medical care of steelworkers. The June 24 Pittsburgh meeting of representatives of certain county medical societies of Pennsylvania (all in the 10th Councilor District), et al, called to discuss extensive service benefits and a system of committee control to improve quality of medical care for steelworkers, was reported by G. Thomas McKean, M.D., Detroit, who attended this meeting as Wayne County Medical Society representative.

- Matters of mutual interest were discussed with (1) Michigan Health Commissioner A. E. Heustis, M.D., who spoke on (a) reorganization of the Council of Health; (b) poliomyelitis vaccine and vaccination; (c) the Department's crime-detection laboratory. (2) The Council also discussed matters of mutual interest with Michigan's Insurance Commissioner Frank Blackford; (3) with the Michigan Hospital Association's President and Secretary; (4) with the Michigan Crippled Children Commision; and (5) with the Michigan Health Council Board of Trustees.

- Public Relations Counsel H. W. Brenneman reported on (1) state and national legislation; (2) request of Citizens Advisory Committee for cooperation in its study of new laws, which cooperation was authorized by The Council; (3) progress report on Michigan Association of the Professions which on July 17 had 1,769 members; (4) fifth printing of the popular brochure "Planning Your Career."

- Committee Reports. The following reports were presented: (1) Committee to Study Feasibility of Greater Participation in Blue Shield, January 22 and March 19 minutes; (2) Relative Value Study Committee (interim report); (3) Committee on National Defense, June 24; (4) Medical Care Insurance Committee, July 15-16; (5) Tuberculosis Control Committee, July 1; and (6) Joint Conference on Aging, July 9.

- Appointments: at the request of the Michigan Office of Hospital Survey and Construction, The Council appointed two representatives, to meet with similar representatives of other groups on August 6, to discuss a proposed policy to make accreditation a requirement for receiving Hill-Burton grants.

  Other appointments: O. J. Preston, M.D., Flint, as Chairman of MSMS Occupational Medicine Committee. A. H. Hirschfeld, M.D., Detroit, A. Hazen Price, M.D., Detroit, and F. C. Swartz, M.D., Lansing, as MSMS representatives to pre-conference meeting July 28, Cleveland, on plans for Regional Conference on Aging scheduled for October. MSMS representatives to AMA Rural Health Advisory Council, meeting in Chicago, September 11 and 12: H. B. Zemmer, M.D., Lapeer, H. W. Brenneman, Lansing, and John A. Doherty, Lansing.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

MASS VISION SCREENING FOR THREE AND FOUR YEAR OLDS

Experimental programs conducted recently by the Vision Section, Division of Maternal and Child Health, in co-operation with two local health departments, and with the guidance and advice of the subcommittee of Ophthalmology of the Michigan State Medical Society's Child Welfare Committee, have demonstrated the effectiveness of forceful health education campaigns in influencing parents to avail themselves of vision screening opportunities offered for preschool children. These experimental programs were conducted in the Seminole School, Mount Clemens, in Macomb County, and on a county-wide basis in Grand Traverse County.

For several years, vision screening for three and four year old children has been recognized as a much needed service. During the early years of rapid development, enduring attitudes are formed and learning is at its peak. During this time satisfactory vision is vital to normal development. For this reason it is considered important to find children with strabismus or with excesses of nearsightedness, farsightedness or astigmatism so that these may be corrected as early as possible.

Less dramatic at the preschool age, but of serious consequence in later life if it is allowed to progress, is amblyopia exanopsia, commonly called "lazy eye." This condition must be found early in order to secure treatment before irreparable damage has been done and one eye has become permanently impaired. School screening does not reach the child at a young enough age.

Excellent preschool vision screening programs had been made available in various places in the state, but only a small fraction of the total number of children who could have been helped by them were reached because parents did not make use of the service. Methods of screening were slow; frightened, unresponsive children were frequent. Our purpose was to determine if (1) programs could be carried on which would reach a larger proportion of these children, if a service were offered through a local health department and with total community support, and (2) if methods could be improved so that all children could be screened and at a faster pace.

With the present birth rate, a total of 400,000 Michigan children are in this age bracket each year, a very sizable group. We knew that our biggest problems were: (1) To develop community awareness; (2) To get parental attention; (3) To stimulate a feeling of need; (4) To furnish a service which they would respect and seek out.

The subject was new to the general public and its success was entirely dependent upon the impact of information as it reached the parent. It was recognized that careful preparation of health education materials which were to the point, and informative, careful timing in the use of these, and the effective use of local resources were undoubtedly basic for the success of the projects.

Techniques used included: (1) Community group planning. These were considered local, not state programs; (2) Press releases; (3) Radio interviews and spot announcements; (4) Television programs and spot announcements using slides; (5) Talks to parent groups; (6) Letters to parents; (7) Appointment cards; (8) A home teaching device; (9) Parent helpers from the community in getting lists of children, writing and mailing communications, telephoning and helping at the screening centers.

The actual publicity campaign lasted four weeks. Group planning, however, began several months prior to the actual screening. Community groups brought into the planning and conducting of the program other than the local health department included: (1) local doctors; (2) Lions clubs; (3) school administrators and teachers; (4) local PTA's.

The number of parents who brought their children in for screening was our first basis for evaluation of the programs. Eighty per cent of the children in the three and four year old group in the school centered program and 50 per cent in the county-wide program were reached by this service. This was considered a better than average response. Our second basis for evaluation was the number of parents who took their children to doctors when such recommendations were made. This has proved to be well over 90 per cent. In addition, a new screening instrument and a home teaching device were developed which made it possible to adequately screen almost every child brought to the center. These will undoubtedly influence future programs, as speed, accuracy, and ease of screening are definitely improved by them. It has also been found that the teaching cards are a valuable tool for the doctor to use in his office and many have been supplied upon request to doctors. The new screening instrument will soon be on the market commercially.

Of the 765 screened in the original projects, fifty-two were referred, twenty-six on visual acuity loss, and twenty-six on symptoms. All but two, whose symptoms cleared, have been examined by doctors. Doctors' reports showed seven received medical or surgical treatment, twenty-five have been fitted with glasses, and thirteen diagnosed as having eye difficulty with no immediate treatment prescribed. All thirteen are to be

(Continued on Page 1510)

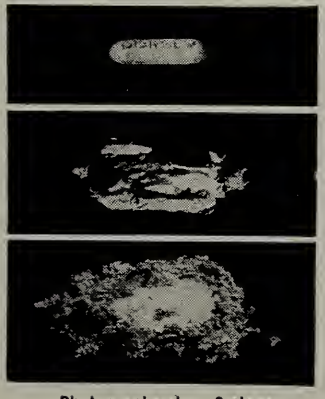
MAINTENANCE THERAPY WITHOUT STEROIDS IS FUNDAMENTAL

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid.

In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.



Photographs show 2-stage Tandem Release disintegration.

Each tablet contains:
Acetylsalicylic acid (5 gr.).....300 mg.
Para-aminobenzoic acid (5 gr.)....300 mg.
Ascorbic acid ..... 50 mg.
Dried aluminum hydroxide gel....100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. 257:278 (Aug.) 1957.

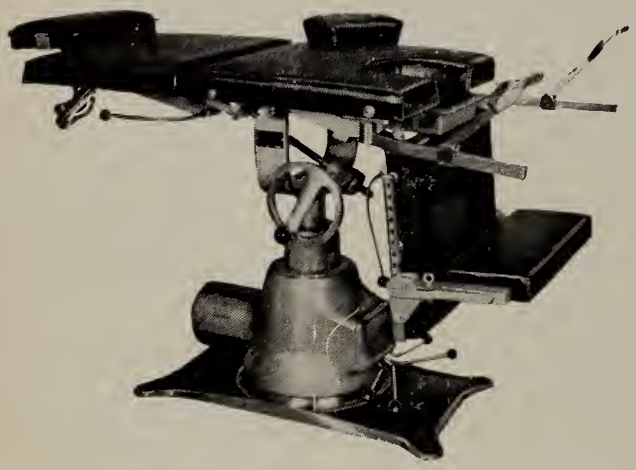
Buffered **Pabirin®** *Tablets*

SMITH-DORSEY · a division of The Wander Company · Lincoln, Nebraska · Peterborough, Canada

GREATER EASE in
EXAMINATION AND TREATMENT

with a

RITTER
UNIVERSAL TABLE



Greater flexibility in a treatment table can make your office practice easier, more efficient. Such is the Ritter Universal Table. Here is a table that reduces effort for both you and your patient. A touch of the toe to the convenient pedals floats the Ritter Table to the height desired. The motion of the table is barely noticeable, giving your patient a feeling of complete security at all times.

The flexibility of the Universal Table is practically unlimited. It provides unusually effective facilities for an improved rectal posture (inverted knee-chest), Gyn and many other positions, including a relaxed approach in the treatment of child or baby.

The extreme low position of the Ritter Universal Table enables the debilitated or the elderly patient to get onto the table without a painful and at times hazardous maneuver. Table rotation of 180° saves you many steps each day and the rotation lock holds the table in any desired position.

Expertly designed, carefully built, this Ritter Universal Table is a sound long-term investment in convenience and efficiency—everything about the table speaks quality from its eye-appealing exterior to its innermost working parts.

Call us today, and we will be glad to arrange a demonstration of this table at your convenience.

NOBLE-BLACKMER, INC.

267 W. Michigan 28148

Jackson, Michigan

In Memoriam

AXEL W. ANDERSON, M.D., eighty-two, Lakewood physician, died July 2, 1959.

Doctor Anderson was born in Sweden. He received a Bachelor of Science degree in 1903 from Northwestern University and a Doctor of Medicine degree there in 1905. He was a staff member of South Shore Hospital in Chicago until 1943.

Doctor Anderson had been a summer visitor in Lakewood, north of Muskegon, since 1912, and a permanent resident for the last 16 years. He was on the advisory staffs at Hackley and Mercy Hospitals in Muskegon.

Doctor Anderson had been a member of the Whitehall Masonic Lodge for 40 years.

ALFRED E. HOLLARD, M.D., seventy-six, Belding physician, died July 1, 1959.

Doctor Hollard was born in Alton, Ill. He was graduated from Washington University in St. Louis, Mo., and the Chicago College of Medicine. He entered the medical profession in 1914 when he went to a remote part of the Upper Peninsula and served as the physician in a lumber camp. He practiced a short time in Grand Rapids before setting up his life-long practice in Belding 40 years ago. For 39 years he served as the city's health officer. Doctor Hollard was honored by the community in a public open house in October of 1957.

Doctor Hollard was a member of the Ionia Elks, the Belding Sportsman's Club and the First Congregational Church. He retired several years ago from the National Guard with the rank of major.

MEDICAL PUBLICITY

(Continued from Page 1494)

report on hospitals which produced a tremendous reaction. The July 7 number has another article titled "Hospitals *Can* Give Patients a Break." This article touches upon many topics which would be an improvement, and it is a very favorable presentation.

The University of Michigan study of the cost of hospital and medical care will be completed and ready for report to the public in May, 1960. It might be well if the House of Delegates would wait to see the results of this study before making changes in M-75.

MSMS annually provides thousands of medical facts to thousands of people in hundreds of meetings.



Doctors, too, like "Premarin"®

THE doctor's room in the hospital is used for a variety of reasons. Most any morning, you will find the internist talking with the surgeon, the resident discussing a case with the gynecologist, or the pediatrician in for a cigarette. It's sort of a club, this room, and it's a good place to get the low-down on "Premarin" therapy.

If you listen, you'll learn not only that doctors like "Premarin," but *why* they like it.

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen. Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms due to estrogen deficiency, "Premarin" takes care of that, too.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

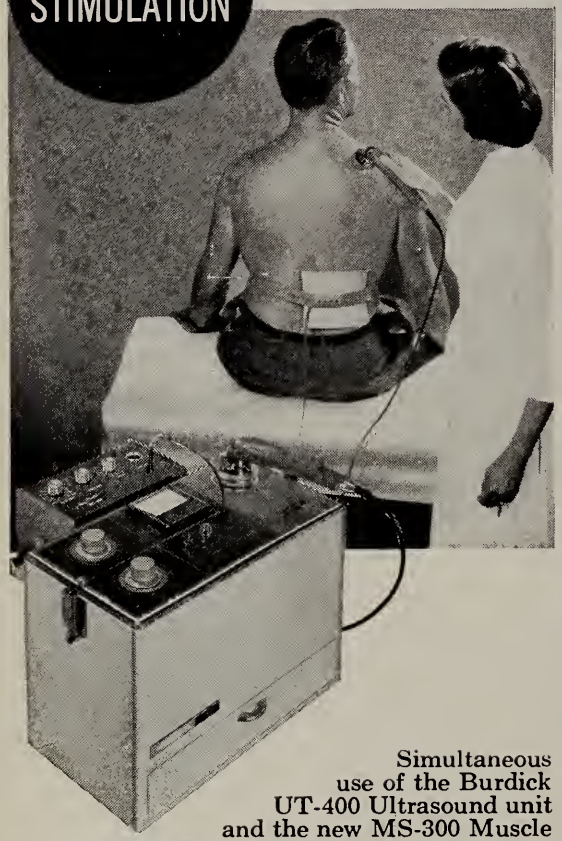
Ayerst®

simultaneous application of

CONTINUOUS OR PULSED ULTRASOUND

and ELECTRICAL STIMULATION

BURDICK'S { UT-400 MS-300 COMBINATION



Simultaneous use of the Burdick UT-400 Ultrasound unit and the new MS-300 Muscle Stimulator offers a new dimension in ultrasonic therapy—combining the massage action of electrical stimulation with the established physiological effects of ultrasound.

For complete information call your Burdick representative or write us.

The MS-300 Stimulator has been approved by the F.C.C. for use in conjunction with the UT-400 Ultrasound unit.

Burdick

THE BURDICK CORPORATION

MILTON, WISCONSIN

Branch Offices:
New York • Chicago • Atlanta • Los Angeles
Dealers in all principal cities

THE G. A. INGRAM COMPANY

4444 Woodward Avenue, Detroit 1, Michigan

Communications

Dear Dr. Haughey:

The Medical and Chirurgical Faculty of the State of Maryland (Maryland State Medical Association) has, for many years, expressed concern over the inroads the Veterans Administration Hospitals are making into the realm of the private practice of medicine. In order to combat the fantastic growth of treatment of non-service connected ailments of veterans, the Faculty has passed many resolutions condemning this practice and urging that something concrete be done to curtail or stop this insidious growth.

The Faculty's House of Delegates at its 1959 Annual Meeting passed a resolution that all component medical societies of the American Medical Association be contacted and urged to support the Faculty's stand in this respect.

As a result of a letter sent to every AMA component medical society, eleven answers have been received all in the affirmative.

It is anticipated that other societies will also reply in the affirmative and that full support to this projected concerted action will be forthcoming from them as well.

I sincerely hope that you will see fit to publish this letter and alert your readers to the steps that are being contemplated along these lines, not the least of which is the hope that an appropriate resolution will be introduced in the AMA's House of Delegates at its clinical session in Dallas in December.

Sincerely,

AMOS R. KOONTZ, M.D., *Chairman*
Committee on Veterans' Medical Care

Baltimore, Maryland
July 24, 1959

MASS VISION SCREENING FOR THREE AND FOUR YEAR OLDS

(Continued from Page 1504)

watched with return visits to the doctors already scheduled. Five, upon examination, were found not to have an eye problem. These five were all referred on symptoms such as excessive rubbing, watering, or complaining.

Of particular interest are two children receiving medical treatment. One case was diagnosed as rheumatic fever and one as malnutrition. Several children have already had surgery for muscle problems.

The feelings of one parent who appreciated his son's serious eye problem being found at such an early age were indicated by his contribution of $100.00 to the local Lions Club in order to insure the continuation of the program. Parent satisfaction will influence future programs and it is hoped that even larger percentages of children can be reached as programs are repeated and prove their worth. Through them a great deal of irreparable damage can be prevented.

The outcome of the experimental project has proved, without a doubt, that such projects are both possible and practical on a large scale basis.

MSMS acts as a unified ONE for the benefit of MANY.

Say you saw it in the Journal of the Michigan State Medical Society



. . . and one to grow on

A tiny tablet of REDISOL to stimulate the appetite — to help in the intake of food for growth.

REDISOL is crystalline vitamin B_{12}, an essential vitamin for growth and the fundamental metabolic processes.

Ideal for the growing child, the REDISOL tablet dissolves instantly on contact in the mouth, on food or in liquids.

Packaged in bottles hermetically sealed to keep the moisture out and to retain vitamin potency in 25 and 50 mcg. strengths, bottles of 36 and 100 — in 100 mcg. strength, bottles of 36, and in 250 mcg. strength, vials of 12.

Also available as a pleasant-tasting cherry-flavored elixir (5 mcg. per 5-cc. teaspoonful) and as REDISOL injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

REDISOL®

cyanocobalamin, Crystalline Vitamin B_{12}

MSD

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

REDISOL IS A TRADEMARK OF MERCK & CO., INC.



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Harry M. Nelson, M.D., Detroit, is the author of a case report on "Cystosarcoma Phyllodes" which appeared in "CA," the bulletin of cancer progress published by the American Cancer Society, June, 1959. He also is the author of an original article, "The Cytology Program of the American Cancer Society," which appeared in *ACTA Union Internationale Contrelecancer,* second number of 1959.

Samuel J. Levin, M.D., Detroit, is the author of an original article, "Aminophylline (Theophylline) in Pediatrics," which appeared in the *Quarterly Review of Pediatrics,* April-June, 1959. He also is the author of an original article, "The Management of the Acute Attack of Asthma in Childhood," which appeared in JAMA, April, 1959.

Richard C. Schneider, M.D., Jack J. Williams, M.D., and **Leopold Liss, M.D.,** Ann Arbor, are the authors of an article entitled "Fatality after Injection of Sclerosing Agent to Precipitate Fibro-Osseous Proliferation," published in *The Journal of the American Medical Association,* August 8, 1959.

Alfred M. Large, M.D., F.A.C.S., and **Charles G. Johnston, M.D., F.A.C.S.,** Detroit, are the authors of an article entitled "The Partial or Complete Portcaval Shunt," published in *Surgery, Gynecology and Obstetrics,* July, 1959.

William H. Lakey, M.D., Ann Arbor, is the author of an article entitled "The Artificial Kidney Unit of the University of Michigan Medical Center," published in the *University of Michigan Medical Bulletin,* April, 1959.

Jack Lapids, M.D., Alexander Barry, M.D., Saul I. Harrison, M.D., George H. Lowrey, M.D., Gardner M. Riley, M.D., and **David H. P. Streeten, M.D.,** Ann Arbor, are the authors of a symposium on "Ambisexualism," presented at the University of Michigan Medical Center, Ann Arbor, on February 24, 1959 for the Section of Urology Seminar, and published in the *University of Michigan Medical Bulletin,* April, 1959.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled "The Trabecular Endothelium," published in *AMA Archives of Ophthalmology,* June, 1959.

John W. Rebuck, M.D., Detroit, is the author of an article entitled "Mammalian Antibody-Membrane Relationships," published in the *University of Michigan Medical Bulletin,* May, 1959.

Ellery T. Drake, M.D., and **Glen D. Dobben, M.D.,** Detroit, are the authors of an article entitled "Leiomyosarcoma of the Uterus with Unusual Metastases," published in the *Journal of the American Medical Association,* July 11, 1959.

W. W. Glas, M.D., Eloise, is the author of an article entitled "Sigmoid Colon Pull-Through Procedure for Rectovaginal Fistula," published in *AMA Archives of Surgery,* July, 1959.

J. Reimer Wolter, M.D., Ann Arbor, is the author of an article entitled "Neuropathology of the Trabeculum in Open-Angle Glaucoma," published in *AMA Archives of Ophthalmology,* July, 1959.

Albert C. Johnston, M.D., Cornelius E. McCole, M.D., and **Gerald A. LoGrippo, M.D.,** Detroit, are the authors of an article entitled "Penetrating Keratoplasty in Rabbits," published in *AMA Archives of Ophthalmology,* July, 1959.

Victoria L. Beckett, M.D., and **Michael J. Brennan, M,D.,** Detroit, are the authors of an article entitled "Treatment of Advanced Breast Cancer with Fluoxymesterone (Halotestin)," published in *Surgery, Gynecology and Obstetrics,* August, 1959.

Thomas H. Snider, M.D., John P. Stevens, M.D., Freeman M. Wilner, M.D., and **Benjamin M. Lewis, M.D.,** Dearborn, are the authors of an article entitled "Simple Bedside Test of Respiratory Function," published in the *Journal of the American Medical Association,* August 1, 1959.

Boy Frame, M.D., and **Raymond Mellinger, M.D.,** Detroit, are the authors of an article entitled "Clinical Evaluation of Renal Tubular Phosphorus Reabsorption Test," published in the *Henry Ford Hospital Medical Bulletin,* June, 1959.

William S. Haubrich, M.D., John H. L. Watson, Ph.D., William O'Driscoll, M.D., and **Virginia Valentine,** Detroit, are the authors of an article entitled "Electron Microscopy of the Free Border of the Human Intestinal Epithelial Cell," published in the *Henry Ford Hospital Medical Bulletin,* June, 1959.

Irving I. Edgar, M.D., Detroit, is the author of an article entitled "Shakespeare's Hamlet and the Melancholy of the Sixteenth Century," published in *The Psychiatric Quarterly Supplement,* Vol. 32, Part I, 1958.

Morton R. Lazar, M.D., and **Harvey A. Krieger, M.D.,** Detroit, are the authors of an article entitled "Blood Loss in Vaginal Surgery: A Comparative Study," published in *Obstetrics and Gynecology,* June, 1959.

* * *

The Chicago Diabetes Association will conduct its third annual Symposium on Diabetes Mellitus at Thorne Hall, Northwestern University, 740 North Lake Shore Drive, Chicago, Thursday, October 1.

* * *

The Michigan Diabetes Association once again sponsored a summer camp for diabetic children. Camp

(Continued on Page 1514)

new for cough



tastes good

the straws just symbolize the good flavor! And DIMETANE EXPECTORANT for cough is as effective as it is delicious. FORMULA: each 5 cc. (1 teaspoonful) contains: DIMETANE (Parabromdylamine Maleate) 2.0 mg.; Glyceryl Guaiacolate 100.0 mg.; Phenylephrine Hydrochloride, USP 5.0 mg.; Phenylpropanolamine Hydrochloride, NNR 5.0 mg.; Alcohol 3.5% in a good-tasting aromatic base.

works better

combines the unsurpassed antihistamine Dimetane with the clinically proven expectorant glyceryl guaiacolate (which increases R.T.F. almost 200%) and two recognized decongestants. When additional cough suppressant action is indicated, prescribe DIMETANE EXPECTORANT-DC, which provides the basic formula with dihydrocodeinone bitartrate 1.8 mg. per 5 cc. (exempt narcotic).

Dimetane® Expectorant
Dimetane® Expectorant-DC

Robins

(WITH DIHYDROCODEINONE BITARTRATE 1.8 MG./5CC.)



in Acne

Routine cleansing with pHisoHex augments standard acne therapy. "No patient failed to improve."[1] pHisoHex helps check the infection factor in acne. Used exclusively and frequently, it will keep the skin surface virtually sterile. Contains 3 per cent hexachlorophene.

pHisoHex®

(antibacterial detergent, nonalkaline, nonirritating, hypoallergenic)

tips the balance for superior results

Winthrop LABORATORIES New York 18, N. Y.

1. Hodges, F. T.: GP 14:86. Nov., 1956.

(Continued from Page 1512)

Midicha, near Lapeer, served more than fifty children this summer, providing them with a well-rounded, diversified activities program. Contributions made it possible for the camp to serve many youngsters who were unable to pay the full camp fee. The Michigan Diabetes Association is to be congratulated for this fine service to children of this state.

* * *

A "heart monitor" developed by William F. Veling, M.D., Detroit, was demonstrated at Atlantic City in the scientific exhibit at the American Medical Association Convention. The new medical instrument is expected to reduce surgical risks by signaling physicians



instantly when it becomes necessary to perform heart massage or other forms of resuscitation. The small device, less than five inches long and weighing only six ounces, is usually strapped to a patient's left forearm with an electrode, connected to the monitor by a small wire, strapped to the right forearm. The monitor is simple to operate and does not require constant adjustment or visual or manual attention of the operating-room personnel. The audible signal can be replaced by a light signal.

* * *

The University of Michigan Medical School will hold its Seventh Triennial Alumni Reunion October 14-17. The program will be chiefly scientific in nature highlighting medical progress during the past three years by means of clinics, professional exhibits, reports on current medical research and televised patient demonstrations over the hospital's closed circuit color system.

Returning alumni also will hold class reunions and will tour the U-M's new $8½-million medical science building, first occupied last fall.

* * *

The New York Academy of Medicine will hold its Third Annual Postgraduate Week (formerly the Graduate Fortnight) beginning October 5. The title of the program will be "Research Contributions To Clinical Practice."

* * *

Roger B. Nelson, M.D., Ann Arbor, has been chosen president-elect of the Michigan Hospital Association which represents about 225 hospitals throughout the state. He will take office as president in 1960.

Dr. Nelson has been active on the professional council

(Continued on Page 1516)

easier swallowing after T & A



Xylocaine Viscous provides quick-acting and prolonged surface anesthesia for sore and painful throats, particularly those occurring after tonsillectomy and adenoidectomy. Its cherry-flavored, water-soluble vehicle spreads evenly and adheres intimately to the membranes. Nonirritating and nonsensitizing. Dose: 1 teaspoonful, swished around in the mouth and then swallowed slowly.

Write for additional information regarding other uses which include management of hiccup and reflex vomiting, as well as relief of discomfort associated with laryngoscopy, esophagoscopy, gastroscopy and the passage of esophageal and gastric tubes.

Astra Pharmaceutical Products, Inc., Worcester 6, Mass., U.S.A.

XYLOCAINE® VISCOUS

(brand of lidocaine*)

for better doctor-patient relationship

SEE PDR

*U.S. PATENT NO. 2,441,498 MADE IN U.S.A.

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

MEDICAL ARTS

SUPPLY COMPANY
311 State Street, S.E. Phone GL 9-9413

PHARMACY
20-24 Sheldon, S.E. Phone GL 6-9661

DRIVE-UP PHARMACY
311 State Street, S.E. Phone GL 9-8294

Grand Rapids, Michigan

(Continued from Page 1514)

of the Association since 1951. Doctor Nelson has been assistant director of the University of Michigan Hospital since 1950.

* * *

The Escanaba Press of August 30 reprinted a photograph showing the late L. Fernald Foster, M.D., being named honorary fire chief of Manistique in 1951 when James H. Fyvie, M.D., was mayor. This photograph had been reproduced in the July JMSMS pages dedicated to the late Doctor Foster.

* * *

Smith Kline & French Foundation disbursed $1,240,-251 in grants to science, education and charity during 1957 and 1958, it was disclosed today in a report released by the trustees of the organization. This brought to $2,698,127 the amount given by the Foundation since its inception in December, 1952. The foundation is established "for the more effective administration and distribution of the company's philanthropic contributions."

* * *

The University of Michigan has appointed A. C. Furstenberg, M.D., dean of the Medical School now on retirement furlough, as consultant for medical development for July 1, 1959 to June 30, 1960.

* * *

The Institute of Industrial Health of the University of Cincinnati announces a course of instruction in Industrial Eye Problems, January 18-22, 1960. Emphasis throughout will be on the needs of the industrial physician.

* * *

Richard C. Bates, M.D., Lansing, was guest speaker at the Midwest meeting of the American Society of Association Executives in Chicago, July 30. His subject was "How to Get a Heart Attack."

Wm. J. Burns, MSMS Executive Director, was toastmaster for the ASAE banquet at which Dr. Bates spoke.

* * *

The World Medical Association announces that The Council of the British Medical Association is making its library available to visiting doctors who are members of the member associations that hold membership in the WMA. This new arrangement is another effort in the promotion of contacts between the medical profession in different countries.

* * *

The Omaha Mid-West Clinical Society will conduct its 27th annual postgraduate session, November 2-5. A major highlight will be a panel on "Antibiotics—Complications of Indiscriminate Use."

* * *

A Symposium on Evaluation of Early Diagnosis of Cancer will be conducted October 26-27 at the Biltmore Hotel, New York city, by the American Cancer Society. This scientific session will be of interest to all doctors of medicine, especially to general practitioners.

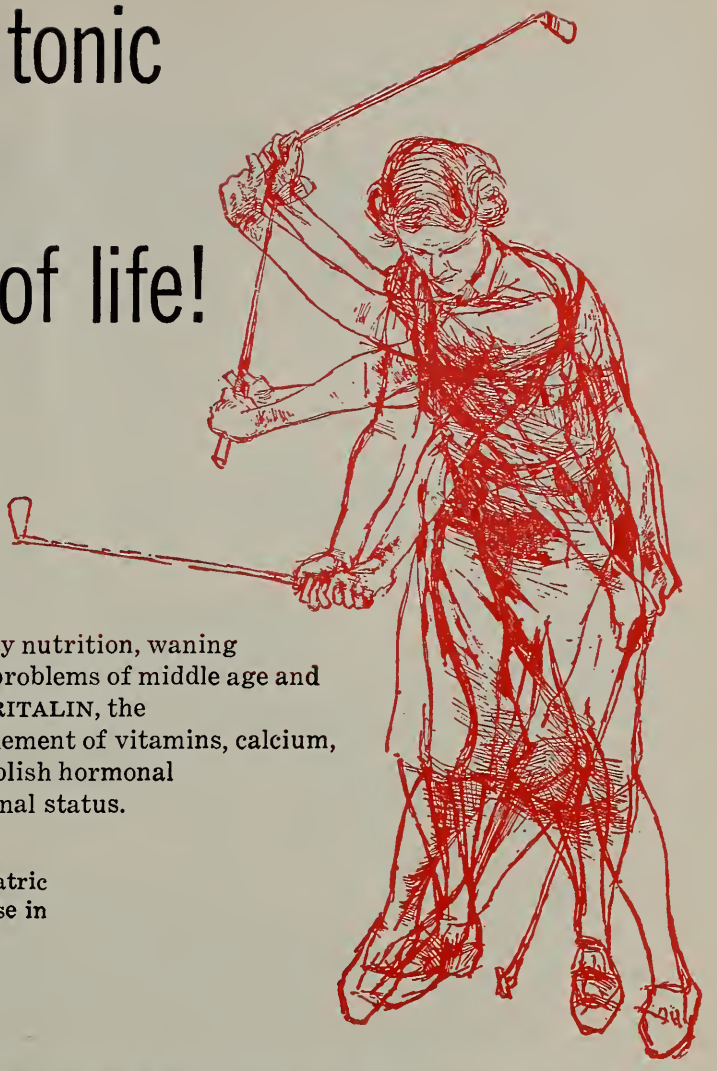
* * *

The Association of American Physicians and Surgeons has available copies of "Foreign Aid and You," the first

(Continued on Page 1518)

Say you saw it in the Journal of the Michigan State Medical Society

New revitalizing tonic brightens the second half of life!



Ritonic™

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the *safe* central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement . . ."[1] "Patients reported an increase in alertness, vitality and sense of well being."[2]

PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

Ritalin® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B_1)	5 mg.
riboflavin (vitamin B_2)	1 mg.
pyridoxin (vitamin B_6)	2 mg.
vitamin B_{12} activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.

Remember
SERPASIL®
(reserpine CIBA)
for the anxious hypertensive with or without tachycardia

Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.
Supplied: Ritonic CAPSULES; bottles of 100.
References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. *6*: 534 (July) 1958.
2. Bachrach, S.: To be published.
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

C I B A SUMMIT, N. J.

2/3655BE

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

(Continued from Page 1516)

report by the Citizens Foreign Aid Committee. The AAPS office is at 185 North Wabash, Chicago 1, Illinois.

* * *

Marquette County organizations will have the opportunity this fall to feature physicians at their meetings to talk on various phases of the heart. The "Speakers Bureau" approach is being developed by the Marquette County Heart Unit as an educational project.

* * *

The Muskegon County Medical Society crash polio inoculation program this summer was termed a success but the doctors of medicine warned that there "is no cause for complacency." The Society became concerned when it was discovered that only 50 per cent of the county population had been vaccinated. The figure was raised to 65 per cent at nineteen Summer clinics throughout the county. Nurses, PTA leaders and many others cooperated in the project which saw 11,542 file through the immunization lines.

* * *

Lester P. Dodd, legal counsel for MSMS, delivered the featured address at three component society meetings recently. He spoke to joint meetings of the Macomb County Medical Society and Bar Association, and the Alpena-Alcona-Presque Isle Medical Society and Bar Association, and also to the Bay County Medical Society.

* * *

Polio Vaccines.—Even though the Salk vaccine was developed and proved effective four years ago, only 67.9 million Americans of a total population of 177.3 million have been fully vaccinated against polio.

Estimates for July 1, 1959, show that 68 per cent of the highly susceptible group of persons under twenty years of age have completed the Salk inoculations. Within this group the most susceptible of all are preschool children, of whom only 51 per cent completed the Salk shots.

Another population segment running a high risk of polio is in the age group from twenty to thirty-nine, of whom only 34 per cent have been fully inoculated. Of those over forty, 91 per cent have not been fully vaccinated.

Further figures show that considerable numbers of people started the series of Salk inoculations but have not yet completed them. Six million received one shot and nearly 12 million received two. Among those under twenty years of age, the breakdown is 5 per cent receiving one shot and 11 per cent receiving two.

* * *

Trichinosis.—The average American is estimated to consume three servings of infected pork a year, according to the latest issue of *Patterns of Disease*. Thus trichinosis, a disease due to infestation of pork by trichinae, becomes a major public health problem. There is no specific treatment but the disease can be prevented simply by cooking pork at 140 degrees F. at least thirty minutes per pound.

* * *

(Continued on Page 1520)

day and night—ulcer control with **B.I.D.** *dosage*



Just one 10 mg. Daricon tablet in the morning, and one at night before retiring, keeps your patient free from the pain and discomfort caused by gastrointestinal spasm, hypermotility, and hypersecretion.

Daricon is a remarkably potent and well tolerated antisecretory/antimotility agent. Its *naturally* prolonged action provides day and night relief of pain and symptoms associated with peptic ulcer, functional bowel syndrome, biliary tract dysfunctions, and other gastrointestinal disorders characterized by spasm, hypermotility, and hypersecretion.

EVEN REFRACTORY CASES RESPOND

new **DARICON***

oxyphencyclimine hydrochloride

Pfizer *Science for the world's well-being*™

Pfizer Laboratories
Division, Chas. Pfizer & Co., Inc.
Brooklyn 6, New York

References: 1. Finkelstein, M., et al.: J. Pharmacol. & Exper. Therap. 125:330 (April) 1959. 2. McHardy, G., et al.: Postgrad. Med., in press. 3. Winkelstein, A.: Amer. J. Gastroenterol., in press. 4. Finkelstein, M., et al.: Presented at Fall Meeting, Amer. Soc. Pharmacol. & Exper. Therap., 1958. 5. Leming, B.: Clin. Med. 6:423 (March) 1959.

*Trademark

(Continued from Page 1518)

A. C. **Furstenberg, M.D.,** dean of the University of Michigan Medical School, now on retirement furlough, has been appointed as consultant for medical development for the period from July 1, 1959 to June 30, 1960.

* * *

Louis R. Zako, M.D., of Oakwood Hospital, Dearborn, was presented with a certificate of award for Graduate Resident training in General Practice at the regular luncheon meeting of the Wayne County Academy of General Practice, June 17 at Wayne County Medical Society.

In 1952, the American Academy of General Practice established a program of scholarship awards to assist recent medical graduates interested in general practice to complete a general practice residency. Funds for the program are provided by Mead Johnson & Company, manufacturers of infant nutritional products. This spring, ten young physicians are completing a year of graduate training under this scholarship program.

The number of awards has been increased to twenty this year. Each of the twenty physicians is scheduled to receive a $1,000 award when he starts his training in an approved general practice residency this summer. The twenty winners of the 1959 awards were selected from interns and medical officers on active duty who are interested in general practice as a career and who are in a position to start a general practice residency in 1959.

* * *

University of Michigan Promotions.—The Board of Regents of the University of Michigan has announced the following promotions in the Medical School:

To Professor: Dr. Murray R. Abell (Pathology), Dr. William H. Beierwaltes (Internal Medicine), Dr. Fred M. Davenport (Internal Medicine), Dr. Harold F. Falls (Ophthalmology), Philipp Gerhardt (Bacteriology), Dr. Bruce D. Graham (Pediatrics), Dr. Sibley W. Hoobler (Internal Medicine), Edwin C. Pliske (Anatomy), Dr. Delbert E. Boblitt (Radiology), Dr. Ralph L. Brandt (Internal Medicine), Dr. Frederick J. Conway (Internal Medicine), Dr. John R. Gosling (Obstetrics and Gynecology), Dr. Donald J. Holmes (Psychiatry), Bruce Levenberg (Biological Chemistry), Dr. Hsi Y. Liu (Pediatrics), Richard L. Malvin (Physiology), Lawrence B. Mellett (Pharmacology), Dr. Bernard Naylor (Pathology), Dr. Leon D. Ostrander (Internal Medicine), Dr. Roy Patterson (Internal Medicine), Dr. Edwin M. Smith (Physical Medicine and Rehabilitation).

To Associate Professor: Dr. Arthur B. French (Internal Medicine), Gerald P. Hodge (Medical Illustration), Dr. James A. McLean (Internal Medicine), Dr. Ernest W. Reynolds, Jr. (Internal Medicine), Dr. Wallace W. Tourtellotte (Neurology), Dr. Charles J. Tupper (Internal Medicine), Dr. Park W. Willia, III (Internal Medicine).

* * *

A **$20,000,000 gift** from the Leonard C. Hanna, Jr., Fund to Western Reserve University's School of Medicine and University Hospitals of Cleveland will be used for building and endowment purposes according to officials of the two institutions. Each institution will receive $10,000,000.

(Continued on Page 1522)







1¼ Grs. Ea.

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the efficacy, potency and purity of Bayer Aspirin, the world's first aspirin.

And the same manufacturing skill, the same 106 ingredient and product tests, the same exclusive processes which contribute to the superiority of Bayer Aspirin set the standards of excellence for Bayer Aspirin for Children.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

● We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New Tamper-Proof Cap



THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

(Continued from Page 1520)

Chairman of the University Medical Center Development Committee is George M. Humphrey, former U. S. secretary of the treasury. Under his leadership the group hopes to raise $40,000,000 in the next 10 years to expand the joint facilities of the WRU School of Medicine and University Hospitals.

WRU President John S. Millis said that approximately $7,000,000 of the $10,000,000 gift designated for Reserve would go into the endowment fund to increase medical faculty salaries. The balance will go with matching federal funds to modernize the present medical school building and to erect an additional five-story structure. According to Dr. Millis, $1,300,000 of the matching federal funds have been received to date.

Stanley A. Ferguson, director of University Hospitals, said that the $10,000,000 coming to his organization would be used for buildings and equipment.

* * *

Artificial Insemination.—America's 100,000 test-tube babies should be left in a legal no-man's land, for the time being at least. This recommendation comes from Professor Emeritus Burke Shartel and Prof. Marcus Plant of the University of Michigan Law School. In their new book, "The Law of Medical Practice," they say a tight veil of secrecy surrounding artificial insemination has enabled most children conceived this way to avoid any social stigma. From a strictly legal standpoint children born following artificial insemination by an outside donor are not legitimate.

Where a mixture from both the husband and an outside donor is used, it is "practically impossible" to overcome the inferred paternity of the husband, the law professors add.

To date, they continue, there is no record of any doctor being sued, charged with a crime, or otherwise made subject to unfavorable publicity for performing an artificial insemination. And only a "very few" children conceived this way have had their true origin made public—usually when the husband and wife later have a major marital smashup.

The University experts make these suggestions to doctors and couples considering artificial insemination:

1. Use this method only when all reasonable attempts to cause procreation by the husband have failed.
2. Keep the artificial insemination absolutely secret. Only three people—the married couple and the doctor—ever need know it has been done.
3. Be sure the couple, especially the husband, are psychologically stable and prepared to have children this way.
4. Have both husband and wife consent in writing in advance.
5. Provide the same care and support for a child conceived this way as any child is entitled to have.
6. Avoid any chance that the child might lose his inheritance, make provision for him in a will or



trust, neither of which requires any disclosure of the child's origin.

* * *

Gallup Poll.—Of all the things you buy or the services you pay for which *one* irritates you most because of high prices?

Food bills	41%
Utilities	7
Medical bills	6
Gasoline	5
Automobiles	5
Repairs (TV, auto, etc.)	5
Other	23
None, don't know	8

—*Detroit Free Press,* July 24, 1959.

* * *

Army Medical Service achievements have helped to protect the health of the nation, as well as the Army, over the years. Among those accomplishments widely associated with the Army are: The identification of the Asian Influenza virus in 1957; the development of new drugs for protection against typhus fevers and malaria; pioneering in the use of plastics for artificial eyes; conquering of yellow fever in Panama; pioneering the medical use of x-rays; development of the punch card system for statistical data; building up of the "Surgeon General's Library" which has since been removed to the jurisdiction of the Public Health Service, and renamed the National Library of Medicine; keeping the country's meteorological records before the present Weather Bureau was set up; basic studies on digestive disorders by Army Surgeon William Beaumont; publication of the first American textbooks on psychiatry and surgery; introduction of smallpox vaccination into the United States; and pioneering civilian hospital planning and construction in America.

* * *

The University of Michigan Medical School, with over 5,000 living graduates, will hold its Seventh Triennial Alumni Reunion, October 14-17.

The program will be chiefly scientific in nature, highlighting medical progress during the pass three years by means of clinics, professional exhibits, reports on current medical research and televised patient demonstrations over the hospital's closed circuit color system.

The major non-medical activity will be the Michigan-Northwestern football game October 17. In addition, returning alumni will hold class reunions, and will tour the University's new $8½-million medical sciences building, first occupied last fall.

Alumni will have their first chance to meet William N. Hubbard, Jr., M.D., who became dean of the medical school July 1, 1959, as successor to the retiring dean, A. C. Furstenberg, M.D.

The last triennial reunion was held in September, 1956.

This summer, invitations are again going to graduates

DBI

trade mark, brand of Phenformin

the "full-range" oral hypoglycemic agent... lowers blood sugar in mild, moderate, and severe diabetes, in children and adults

FOR MORE DEPENDABLE RESPONSE, start your patients on DBI—entirely different from the sulfonylureas in chemical structure, mode of action and spectrum of activity... usually effective in low dosage range (50 to 150 mg. per day).

3 out of every 4 stable adult diabetics are satisfactorily and comfortably regulated with DBI.

2 out of every 3 brittle diabetics (juvenile or adult) enjoy better stabilization and easier management with combination of DBI and injected insulin. The smooth, gradual onset of blood-sugar lowering action helps prevent dangerous shifts between hypoglycemic reactions and hyperglycemic ketoacidosis.

sulfonylurea failures—secondary failures and primary resistant patients may respond to DBI alone, or combined with a sulfonylurea.

no clinical toxicity in over 3000 patients studied closely for varying periods up to nearly three years.

On a "start-low-go-slow" dosage pattern, DBI is relatively well tolerated. Gastrointestinal reactions occur most frequently in dosages exceeding the practical maximum 150 mg. daily, but abate promptly upon reduction of dosage or withdrawal of DBI.

The physician prescribing DBI should be thoroughly familiar with its indications, dosage, possible side effects, precautions and contraindications, etc.



DBI (N^1-β-phenethylbiguanide HCl) is available as white, scored tablets of 25 mg. each, bottle of 100.

Write for detailed literature.

u. s. vitamin & pharmaceutical corporation
Arlington-Funk Laboratories, division
250 East 43rd Street, New York 17, N. Y.

of the medical school and to all doctors who completed intern or residency training at the U-M hospital.

The reunion will also help mark the 90th anniversary of the hospital, the nation's first to be owned and operated by a university in connection with its own medical school.

Chairmen of committees specially appointed for the reunion are: John M. Sheldon, M.D. (Program); H. Marvin Pollard, M.D. (Housing); William H. Beierwaltes, M.D. (Registration); Harry A. Towsley, M.D. (Reception and Entertainment); Reed M. Nesbit, M.D. (Banquet); Arthur C. Curtis, M.D. (Professional exhibits); Fred J. Hodges, M.D. (Visual Education); William Bender, Jr., M.A. (Publicity).

* * *

"Mouth-to-Mouth" Artificial Respiration.—The American Red Cross has announced official adoption of the "mouth-to-mouth" technique of artificial respiration for adults as well as children. Teaching of the method in Red Cross first aid and water safety courses will begin immediately.

The technique was declared the most practical in a unanimous verdict of a committee of the National Academy of Sciences-National Research Council after a thorough review of artificial respiration data.

A. W. Cantwell, national director of Red Cross Safety Services, explained that the Red Cross delayed announcement of its adoption of the method only long enough to prepare and have published an instruction manual for use of its volunteer class instructors. Distribution of copies of this manual to the 3,700 Red Cross Chapters was completed early in July. It was issued as a supplement to the most recent edition of the Red Cross First Aid Textbook, published in 1957.

The technique, also called "mouth-to-nose" respiration, dates back to Biblical times.

Instructions on performing this type of resuscitation, to be started immediately on discovery of the unconscious person, are as follows:

If there is foreign matter visible in the mouth, wipe it out quickly with the fingers or with a cloth wrapped around the fingers.

Then tilt the head back so the chin is pointing upward. Pull or push the jaw into a jutting-out position. These maneuvers should relieve obstruction of the airway by moving the base of the tongue away from the back of the throat.

* * *

The American College of Physicians announces seven regional postgraduate courses in Internal Medicine: (1) September 28-October 2, Washington, D. C.; (2) October 5-9, Buffalo, N. Y.; (3) November 2-6, Syracuse, N. Y.; (4) November 30-December 4, New Orleans; (5) January 11-15, 1960, New York City; (6) January 25-29, Detroit, Michigan (This one will be held at Henry Ford Hospital); (7) February 8-12, 1960, New York City. Registration information: E. R. Loveland, Exec. Secretary, 4200 Pine Street, Philadelphia 4, Pennsylvania.

(Continued on Page 1526)



BRIGHTON HOSPITAL

A non-profit foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
One block south of U. S. 16 at Kensington Road
Brighton, Michigan
ACademy 7-1211

For topical infections, choose a 'B. W. & Co.'® 'SPORIN'...



Each gram contains:
'Aerosporin'® brand Polymyxin B Sulfate 5,000 Units
Zinc Bacitracin ..... 400 Units
Neomycin Sulfate ..... 5 mg.
Hydrocortisone ..... (1%) 10 mg.
in a special petrolatum base.



Each gram contains:
'Aerosporin'® brand Polymyxin B Sulfate 5,000 Units
Neomycin Sulfate ..... 5 mg.
Zinc Bacitracin ..... 400 Units
in a special petrolatum base.

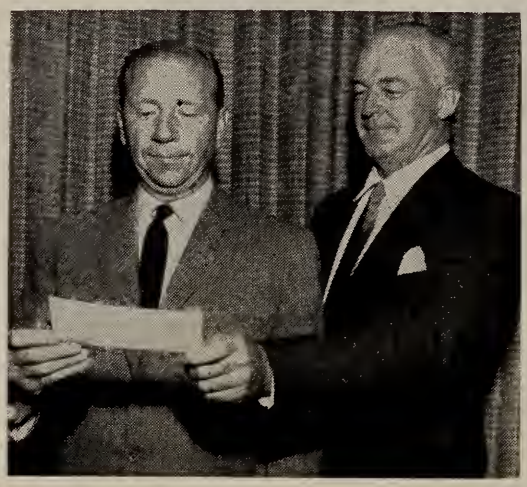


Each gram contains:
'Aerosporin'® brand
Polymyxin B Sulfate ..... 10,000 Units
Zinc Bacitracin ..... 500 Units
in a special petrolatum base.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.

(Continued from Page 1524)

A **Chrysler Fund Contribution** of $22,500 to the National Fund for Medical Education was presented by Chrysler Corporation Vice President John D. Leary *(right)* to John S. Bugas, vice president of Ford Motor



Company, and chairman of the automotive division of the National Fund for Medical Education. The National Fund for Medical Education annually awards grants to each of the nation's eighty-two medical schools to support basic medical research in the conquest of disease, and to improve standards of medical education in the individual schools.

Three appointments to the faculty of The University of Michigan Medical School faculty were approved by the Regents July 24, 1959.

F. Gaynor Evans (Ph.D.), professor of anatomy at Wayne State University College of Medicine and a member of the Wayne faculty since 1945, was appointed professor of anatomy, beginning with the 1959-60 University year.

Theodore O. Sippel (Ph.D.), senior instructor in the Department of Anatomy at Western Reserve University in Cleveland since 1957, was named as assistant professor of anatomy, beginning Sept. 15, 1959.

Brian F. McCabe, M.D., who has just finished four years of training on the staff of the U-M Department of Otolaryngology, was appointed an instructor in otolaryngology, three-fourths time, beginning July 1, 1959, with the privilege of private practice in the University Hospital.

Leave of absence was granted Dr. Robert J. Bolt, associate professor of internal medicine, from September 1, 1959 to January 1, 1960 so that he might accept an invitation as lecturer in medicine at Louvain University in Belgium.

* * *

Hospitals in the United States cared for 700,000 more cases last year than in 1957, the American Hospital Association reported.

A total of 23,697,000 hospital admissions was reported in 1958 as compared to 22,993,000 in 1957, according

(Continued on Page 1528)



If one . . . or all . . . needs nutritional support . . .



they
deserve

GEVRAL®

capsules—14 VITAMINS AND 11 MINERALS

Vitamin-Mineral Supplement Lederle

For Complete Formula see PDR (Physicians' Desk Reference), page 689

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

(Continued from Page 1526)

to statistics which appeared in the annual Guide Issue of *Hospitals,* journal of the Association. The information was compiled from questionnaires received from 6,786 hospitals in the continental United States.

Births reported by the hospitals reached an all-time high of 3,742,000 babies born in 1958. Each day last year there were more than 1,300,000 patients and 48,000 newborn babies in hospitals.

The hospitals reported total expenses of $7,133,493,000 of which $4,660,191,000 was for payroll. Total assets for all hospitals amounted to $15,470,017,000. The hospitals employed 1,464,829 personnel in 1958, an average of 111 personnel per 100 patients, as compared with 107 in 1957. This ratio ranged from 224 personnel per 100 patients in voluntary short-term hospitals to 34 per 100 patients in non-federal psychiatric hospitals.

The voluntary short-term hospitals cared for 15,825,136 cases; the average patient stay in these hospitals was 7.4 days. An average of $29.24 a day was spent by these hospitals for the care of each patient, an increase of $2.43 over 1957.

Patients in voluntary short-term hospitals paid an average of $1.28 a day less than it cost to care for them. Total income from patients in these voluntary hospitals in 1958 was $3,277,242,000, while expenses were $3,426,520,000. Patient income made up 92.6 per cent of the total income of all these hospitals in 1958, as compared with 91.2 per cent in 1957. The balance came from contributions, grants and income from such sources as endowments.

* * *

Fellowship Announcements.—The National Foundation for Infantile Paralysis on July 15 announced allocations of more than $1,000,000 in March of Dimes funds for education in the health professions, including an appropriation for a new fellowship program to give doctors more extensive clinical training in the fields of rheumatology and birth defects.

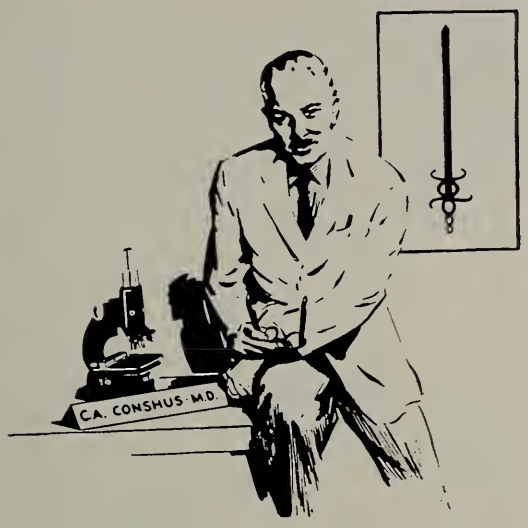
Awards for education in the health fields are in addition to grants made for the same period in research and clinical investigation. The combined sum awarded is more than $3,500,000.

These awards bring the total sum channeled into education for the health professions by The National Foundation to almost $32,000,000. Included in the $32,000,000 are funds for a Health Scholarship program initiated earlier this year to provide four-year college training for young Americans in five of the health fields—medicine, nursing, physical therapy, medical social work and occupational therapy. The first 515 winners of these scholarships will be announced this summer. This fellowship program is open to residents or practicing physicians for study in rheumatology or in the treatment of patients suffering from birth defects of the central nervous system, both part of The National Foundation's new program. Stipends will range from $3,600 to $7,000 a year.

(Continued on Page 1530)



C. A. Conshus, M.D., Says . . .



Bill Delay had a frog in his throat.

John Wiseman was in the same boat.

Thanks to early x-ray.

John's voice is o. k.

He just wrote Bill's widow a note.

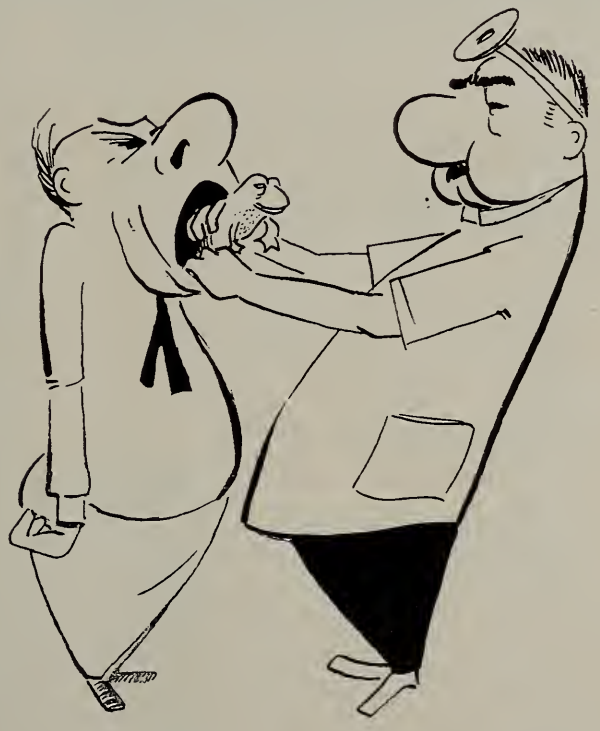
Little sores in the mouth that won't heal,

A lump on the neck you can feel,

Should be speedily treated

Since once they're deep-seated

You might get a really raw deal.



POINT - Larynx - Lungs

DANGER SIGNAL - Persistent hoarseness or cough.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

(Continued from Page 1528)

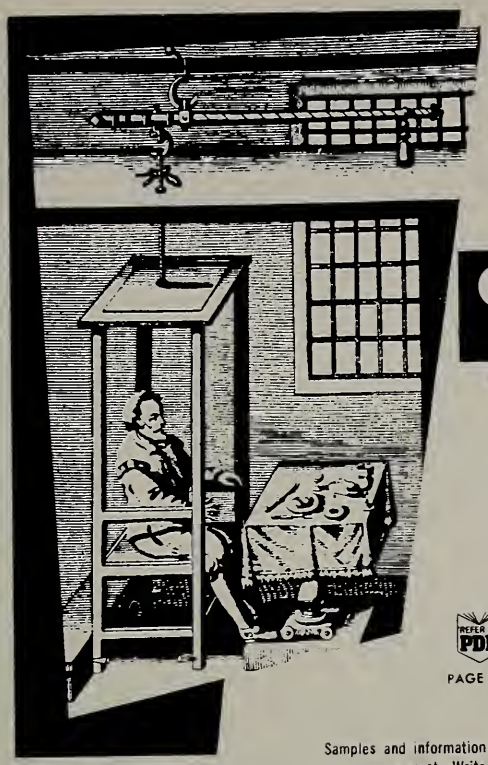
Blue Shield Over Sixty-five Coverage.—Donald Stubbs, M.D., Washington, D. C., chairman of the Board of the National Blue Shield, testifying before the Committee on Ways and Means of the U.S. House of Representatives on July 17, reported that Blue Shield Plans had approximately 2½ million persons over age sixty-five enrolled at the end of 1957 and that this significant figure had been achieved without special programs for the aged but instead by including them as a part of the whole community.

Dr. Stubbs then reported on the significant progress made by Blue Shield Plans since the passage in December, 1958 of the American Medical Association resolution, urging the development of programs to provide senior citizens with suitable health care coverage. He indicated that, at present, twenty-four of the sixty-five Blue Shield Plans located in the United States, with about one-third of the total Blue Shield membership, offer nongroup enrollment coverage to those over the age of sixty-five. In comparison, a year ago, only four Plans offered such programs, although all Plans permitted continuation of coverage to any age if acquired before age sixty-five. In addition, there are four more Plans, embracing 17 per cent of total Blue Shield membership, with programs already approved but not actually in effect at this date because of minor details to be ironed out. There are twenty-five Plans, with 41 per cent of total Blue Shield membership, that have programs in various stages of development and under consideration; only twelve Plans, covering 8 per cent of total membership, do not have special programs that can be recorded at this time. "Thus," Dr. Stubbs revealed, "about 92 per cent of the total Blue Shield enrollment is in areas where special programs for the care of aged are already in being or are in stages of development at this moment." In the half year since the beginning of the concerted effort to add these programs to our regular ones, this is a remarkable showing of the vigor that can be associated with the voluntary effort. Beginning slowly in widely separated areas but coming to a crescendo of activity we have here a broad picture of the accelerating development which we believe will solve this problem in the best way that it is solvable if allowed and encouraged to continue along these lines.

* * *

The American Association of Doctors' Nurses, a new non-profit organization, has been incorporated to assume the membership of the old American Registry of Doctors' Nurses. The new organization has been incorporated to eliminate all legitimate objections from other nursing groups. The new non-profit Association will maintain headquarters in the American Building, Washington, D. C. The purpose of the Association is to promote the welfare of the members, to elevate the standards and ethics of their profession, and to enroll Doctors' Nurses in order that they may advance their status as proven members of that profession.





Sanctorius on his steelyard chair in the act of weighing himself for a metabolism experiment

in obesity
bring the . . . MOOD UP
. . . WEIGHT DOWN
keep BLOOD PRESSURE LEVEL
with

QUADAMINE
GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR
PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG
S. J. TUTAG & COMPANY
DETROIT 34, MICHIGAN

In order to become a member, the Doctors' Nurse must be able to qualify as an experienced Doctors' Nurse. In addition to stating her qualifications, her application must be signed by a Doctor of Medicine.

The membership is composed not only of those whose experience has been entirely in doctors' offices, but also Trained Nurses and Practical Nurses who are not serving in hospitals, nor engaged in private duty, but are now serving in doctors' offices. At the present time there are members in 48 states, Hawaii, Republic of Panama, et cetera.

The Association will consist of local and state chapters, which will elect delegates to represent them at all Association Conventions.

* * *

Radio Activity and Radio Biology.—Twenty college instructors from throughout the United States and Puerto Rico are attending a special eight-week institute on radioactivity and radiobiology at the University of Michigan Medical Center. The course is designed to acquaint professors with the various aspects of radioactivity, the use of isotopes in research and the effect of radiation on living tissues. The institute is sponsored by the National Science Foundation, the Atomic Energy Commission and the U-M Division of Biological Sciences. Those attending from Michigan are: Adrian—Sister Ann Charles Duggan, Siena Heights College; Alma—Dr. Lester E. Eyer, Alma College; Detroit—Sister Marie Fidelis Remski, Marygrove College.

The National Library of Medicine has just issued a bibliography on Arthropod-borne Encephalitis. Copies may be obtained at no cost upon request to the Acquisition Division, National Library of Medicine, 7th Street and Independence Ave. S.W., Washington 25, D. C.

* * *

MEETINGS OF INTEREST

The 24th annual congress of the North American Federation, *International College of Surgeons,* will be held in the Palmer House, Chicago, September 13-17. The North American Federation covers the United States, Canada, Mexico, Cuba, Haiti, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama.

Surgical specialties to be represented are: colo-proctologic, neurologic, obstetric and gynecologic, ophthalmologic, otorhinolaryngologic, orthopedic, plastic and reconstruction, trauma and rehabilitation, and urologic. There will also be surgical motion pictures.

The *American Rhinologic Society* will hold its fifth annual meeting in the Belmont Hotel, Chicago, October 10. This will be preceded by a surgical seminar in the Illinois Masonic Hospital, Chicago, October 7-9.

The Clinical Congress of 1960, *American College of Surgeons,* will be held in San Francisco, California, October 27-November 1.

District V of the *American College of Obstetricians and Gynecologists* will hold its annual meeting in the Statler Hilton Hotel, Detroit, November 18-21. The

district comprises Indiana, Kentucky, Michigan, Ohio and Ontario. Two days will be devoted to the presentation of a scientific program, it was announced by Dr. Edwin S. Hoffman, Detroit, chairman of the program committee.

* * *

M.D. Locations through July 31, 1959

Placed by Michigan Health Council.—Edward G. Krug, M.D., Lapeer; O. L. Trick, M.D., Durand; James S. Scott, M.D., De Witt; Gerald A. VanderVoord, M.D., Moline; James Sabal, M.D., Temperance.

Assisted by Michigan Health Council.—Neal C. Brady, M.D., Royal Oak; Keith G. Lieding, M.D., Traverse City; Robert Selman, M.D., Pontiac; Thomas A. Hayes, M.D., Grand Rapids; Owen S. Erhard, M.D., Eaton Rapids; William G. Underhill, M.D., Saginaw; Richard D. Sills, M.D., Royal Oak; Jose M. Cueto, M.D., Detroit; H. Joseph Cronin, M.D., St. Clair; E. James Potchen, M.D., Grand Rapids.

* * *

Medical Television Shows produced by Michigan Health Council:

July 5—"A Career in Physical Therapy"—(Film—"The Return")
July 12—"Chiropody"—(Films: "Shake Hands with your Feet," "Chiropody as a Career")
July 19—"Rehabilitation"—(Film: "Close Up")
July 26—"Multiple Sclerosis"—(Film: "In Sickness and in Health")



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York



Portable Ultrasonic Generator. F.C.C. Type Approved.

Portable ULTRASONIC Generator

1. Federal Communications Commission Type approval No. U-153
2. Underwriters' Laboratories Approval
3. Genuine Quartz Crystal of five square centimeters
4. Output up to fifteen Watts, total
5. Intensity selected on Indexed Rotary Switch with steps of 0.2, 0.5, 1.0, 1.5, 2.0 and 3.0 Watts per square centimeter, each of which is calibrated.
6. Handle for easy carrying and wrap-around for cables
7. Bracket furnished for wall mounting.
8. Cabinet also fits standard size Mobile Utility Stand
9. Cabinet dimensions: 16⅝" long, 10" deep, 5¾" high
10. Weight 28 pounds

H. G. FISCHER & CO.
OF DETROIT
21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE 7-4140

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE
124 West Gates Street
Romeo, Michigan

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

HELEN HEARDMAN PHYSIOTHERAPY IN OBSTETRICS AND GYNECOLOGY. Including Education for Childbirth. Revised by Maria Ebner, M.C.S.P. (Teacher's Certificate), Diploma in Physical Education (Vienna University) Principal of School and Department of Physiotherapy of the United Leeds Hospitals. With Forewords by W. C. W. Nixon, M.D., F.R.C.S., F.R.C.O.G., Professor of Obstetrics, University of London and Veronica Shand, S.R.N., S.C.M., M.T.D., Supervisor of Midwives, Lancashire County Council. Second Edition. Edinburgh and London: E. & S. Livingstone Ltd. 1959. Price $5.00.

The anatomy and physiology of the muscles and structures of the pelvis are very well illustrated and explained. The part of physiotherapy in obstetrics is a definite aid to the teachers of natural childbirth. The book is primarily one for physiotherapists but would be of value to expectant parents' courses and of interest to all practitioners doing obstetrics and gynecology. Its value in gynecology is mainly one of muscle training and strengthening. The book is well worth reading for the exercises and the practical anatomy and physiology of women.

J.R.P.

SIXTH INTERNATIONAL CONGRESS OF OTOLARYNGOLOGY. Washington, D. C., U.S.A., May 5-10, 1957.

This is a publication of that International Congress giving pictures in groups of those attending, giving minutes, abstracts, papers, hearings, etc. Members hoping to attend or able to attend were privileged to subscribe for this volume which is now being distributed. It gives a complete record of the actions and accomplishments, containing also a map of the city, location, buildings and floor plans of the headquarters at the Hotel Statler.

NOW OR NEVER. The Promise of Middle Years. By Smiley Blanton, M.D., with Arthur Gordon. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Price, $4.95.

The author is well known for his many books on mental hygiene, two of which were written in conjunction with Norman Vincent Peale. This book was written with Arthur Gordon and deals with those individuals in the thirty-five to sixty year age group. Among the subjects treated are Anxiety, Marriage, The Seven Deadly Work Sins, Money and the Human Body. Case histories are used to explain theories.

The book is of value in reviewing what most physicians already know and bringing to light many things which the conscious mind has suppressed. The book is of special value to general practitioners and students.

J.R.P.



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

Malpractice Prophylaxis

HEEDING PATIENTS' WARNINGS ON ANTIBIOTIC REACTIONS

Specialized Service makes our doctor safer

THE MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

DETROIT Office

George A. Triplett and Richard K. Wind Representatives

2405 West McNichols Road

Telephone University 2-8064



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Laboratory Examinations
Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY
Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

CLINICAL ORTHOPAEDICS OF THE HAND. Anthony F. DePalma, Editor-in-Chief, with the assistance of the Associate Editors, the Board of Advisory Editors, the Board of Corresponding Editors, Number Thirteen. Spring, 1959. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price, $7.50.

This issue, like its predecessors, is divided into an initial section dealing with a given subject in symposium form, a second section on general orthopaedics, and a third section on scattered orthopaedic items.

The lead section deals with the hand, and the authors present certainly represent an excellent cross section of current thinking on hand injuries. Most of the articles deal with traumatic problems, although comparative anthropology, skeletal development, and tumors are discussed too. This section makes the modest price of the volume well worth while.

The section on general orthopaedics largely deals with operative problems, although such things as back disorders are also presented. The scattered item section is just as it is named, but always covers some small, but annoying, problems.

This volume, like the preceding numbers in the series, continues to be recommended by the reviewer.

R.H.A.

TECHNIC AND PRACTICE OF PSYCHOANALYSIS. By Leon J. Saul, M.D., Professor of Clinical Psychiatry, Medical School of the University of Pennsylvania; Training Analyst, Philadelphia Psychoanalytic Institute; Psychiatric Consultant, Swarthmore College. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price, $8.00.

This book offers a description of how the analyst achieves his insights, understands the individual patient, and applies this understanding toward cure. It covers subjects such as: the analysts' concept of his work, interview technic, free association, unconscious material including dreams, the conduct of the analysis, including special complications, and the progressive course and termination of the analysis. It contains many insights, practical formulations and provocative observations bearing upon health education and psychoanalytic treatment. Particularly clear and distinct are its presentations of free association, interpretation and dream analysis.

Dr. Saul has succeeded considerably in avoiding didactic presentation of his views, although his discussion includes the "interpersonalist" concept and even holds that shock treatment may "be considered to be an adjunct to psychoanalytic treatment."

J.M.D.

YOUR MIND CAN MAKE YOU SICK OR WELL. How To Let the Wonderful Powers of Your Mind Bring You Magnificent Health and Complete Well-Being. By Curt S. Wachtel, M.D. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Price, $4.95.

This book attempts to popularize most important health insights such as the use of the mind for creating general health, overcoming ill health, and maintaining health already achieved. It provides many brief case

The Medical Supply Corp.

NOW IN THEIR NEW

ENLARGED OFFICES AND SHOWROOMS

INCREASED FACILITIES

INCREASED SERVICE

3632 Woodward Avenue

Detroit 1, Michigan

TEmple 1-4588 TEmple 1-4589

descriptions. Its style is eclectic, its author using the viewpoints of mental health experts representing several schools of psychiatric orientation, as well as selecting established religious truths. Dr. Wachtel's devotion to the principle of self-help heightens the practical usefulness of his text.

It is possible that, along with the helpfulness of his physician, many a reader will be able to experience its publisher's claim, "This book shows you how to *consciously* make your mind your most potent defense against illness. As you read these pages, you will find yourself kindling a greater physical energy—and generating a new enthusiasm—for meeting the challenges of life."

J.M.D.

BOOKS RECEIVED

AS OTHERS SEE US. A Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Chicago: American Medical Association, 1959. Single copies 25c.

ANSWERS TO HEALTH QUESTIONS IN PHYSICAL EDUCATION. Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, Washington 6, D. C.: American Association for Health, Physical Education and Recreation. A Department of the National Education Association, 1959. Price, $.50. Discounts on quantity orders: 2-9 copies, 10 per cent; 10 or more copies, 20 per cent.

THERAPEUTIC RADIOLOGY RATIONALE, TECHNIQUE, RESULTS. By William T. Moss, M.D., Assistant Professor of Radiology, Northwestern University School of Medicine; Department of Radiology, Chicago, Illinois; Director, Department of Therapeutic Radiology; Chicago Wesley Memorial Hospital; Chief, Department of Therapeutic Radiology; Veterans Administration Research Hospital, Chicago, Illinois. With Foreword by Lauren V. Ackerman, M.D. With 146 illustrations. St. Louis: The C. V. Mosby Company, 1959. Price, $12.50.

The need for a work which incorporates newer techniques in the comprehensive coverage of the field of therapeutic radiology is answered by this book. The material is extremely well organized, beautifully illustrated and contains a complete bibliography of recent literature on the subject. Rather than a "recipe book" type of text, the author has dealt in principles including response of normal tissues to irradiation, response of disease dependent on pathologic type, forms of radiation used, techniques of administration and results of treatment. There is also an excellent and impartial discussion of the relative merits of radiation and surgery according to the location and pathologic type of the lesion.

This material is presented in an interesting and easily read fashion. Both the physician desiring a review of the field of radiation therapy and the practicing therapeutic radiologist who needs a reference work will profit from this book.

W.S.G.

Say you saw it in the Journal of the Michigan State Medical Society

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Write Box 8, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE—Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Write: Box 9, 606 Townsend Street, Lansing, Michigan.

DOCTOR OF MEDICINE NEEDED—Will help one get started in good steady town of 1,500. Mild climate near large lakes. Write or call Chamber of Commerce, Weleetka, Oklahoma.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX®

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

WANTED—M.D.—OSCODA COUNTY—Population 3,800, doubled in summer months. Nearest M.D. 32 miles. Home and office space available on main street of county seat, Mio. For further details, contact Mio Boosters' Association, Mio, Michigan.

OB-GYN—Southwestern Michigan resort area, town of 35,000, shopping area 100,000. Established ten years, gross to $60,000. Two approved hospitals four and eight minutes. Buy lease of air-conditioned office, general office equipment, records, medical equipment optional. Will introduce. Duration desired. Terms. Write: Box 16, 606 Townsend Street, Lansing, Michigan.

FOR RENT—Three-room suite in new medical building. Location ideal—one hour from the heart of Detroit—One G.P., who is also interested in helping with Industrial Medicine as a relief man. Up and growing community. For further details, contact: W. C. Gibson, M.D., 216 East Commerce St., Milford, Michigan. Phone Milford, MUtual 4-6775 and 4-6771.

EXCELLENT OPPORTUNITY for associate in general practice. New two-man clinic in town of 10,000. 80-bed hospital. Salary open, depending on training and experience. Reply Box 15, 606 Townsend St., Lansing, Michigan.

MEDICAL PRACTICE with real estate and living quarters in good community, only nine miles to good hospitals, large income, low down payment as owner is retiring due to health and age. For details call or write Lee Guernsey. LaNoble Realty, 1516 E. Michigan Avenue, Lansing, Michigan. IVanhoe 2-1637, Evenings IVanhoe 9-1814.

SEMI-RETIREMENT OPPORTUNITY—A business man nearing retirement wishes to associate with a doctor of medicine approximately four months per year in developing and operating a rehabilitation retreat for business men. Writer owns island property near the Canadian border suited to this purpose. Need medical supervision of diet and controlled activity. Would like to begin plans now and start in summer of 1961. Physician should like outdoor life and fishing. For added information contact Box 17, 606 Townsend Street, Lansing, Michigan.

LIMITED PRACTICE OPPORTUNITY—Small alcoholic hospital in Central Michigan requires the services of a doctor of medicine for approximately four hours per day. For further information write Box 18, 606 Townsend Street, Lansing, Michigan.

OBSTETRICS AND GYNECOLOGY—Approved three-year residency, available July 1, 1960. Open to graduates from an approved medical school and approved internship, or others holding a temporary or permanent Michigan medical license. Salary $4800 to $5700. Uniforms furnished. Room available for single residents. Apply to Assistant Administrator, Crittenton General Hospital, 1550 Tuxedo, Detroit 6, Michigan.

Plainwell Sanitarium

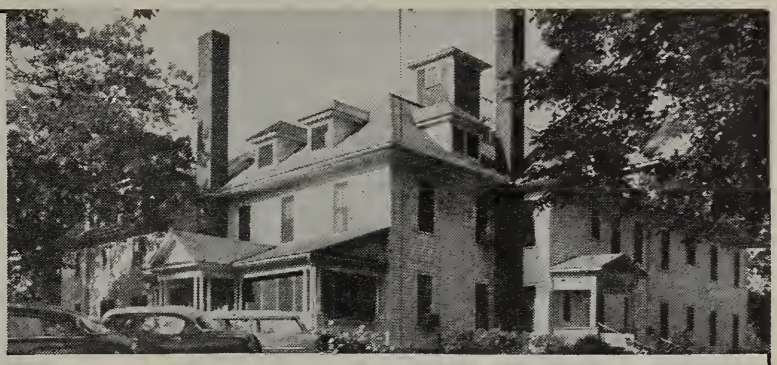
PLAINWELL, MICHIGAN

Member American Hospital Association

EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief

Professional care for the nervous and mentally ill.

Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

Athemol FOR ARTERIOSCLEROSIS

Athemol (R), Meyer brand of Magnesium 3-7-dimethyl xanthine oleate, is a new compound for the treatment of arteriosclerosis and atherosclerosis.

Athemol tablets are available in bottles of 100 and 500

MEYER AND COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE • ST. CLAIR SHORES, MICH.

PROFESSIONAL MANAGEMENT • FOR PHYSICIANS AND DENTISTS • since 1932 PM®

Battle Creek	WO 5 5253
Detroit	WO 1-6259
Grand Rapids	GL 6-1781
Saginaw	SW 2-7661

TESTED — Rx — APPROVED

By

Professional Management

THE NEW PM WRITING BOARD

ONE WRITING ONLY

- Produces a receipt
- Provides an up-to-date statement
- Posts the patient's account
- Permits photo-type statements
- Makes the day book record
- Minimizes bookkeeping



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED
KYNEX®
Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

In Lansing

HOTEL OLDS

Fireproof

400 ROOMS

PRESENT STATUS OF NEUROSYPHILIS IN A LARGE CITY HOSPITAL

(Continued from Page 1482)

5. Harrison, T. R.: Principles of Internal Medicine Second Ed. P. 1703, Section 14. New York: McGraw Hill, 1954.
6. Ingraham, N. R., Jr., Stokes, J. H., and Gammon G. D.: Penicillin alone in neurosyphilis: Spinal fluid response, including a comparison with pre-penicillin therapy. Am. J. of Syph., 34:566-580, 1950.
7. Krohn, M.: The Clinical Examination of the Nervous System. 10:417. New York: Hoeber, Inc., 1955.
8. L'hermitte, J., and Trelles, J. O.: L'arteriosclerose Du Tronc Basilaire et Ses Consequences Anatamo-Cliniques. Jahrbücher Psych. Neurol., 51:91, 1934.
9. Merritt, H. H., Adams, R. D., and Solomon, H. C.: Neurosyphilis. 443 pp. New York: Oxford University Press, 1946.
10. Perlo, V. P., Rose, A. S., Carmen, L. R., and Solomon, H. C.: Treatment of neurosyphilis—one to six year follow-up of patients treated with penicillin at the Boston Psychopatic Hospital—Comparison of results with penicillin alone and combined penicillin-malariotherapy. Am. J. Syph., 35:559-567, 1951.
11. Symonds, C.: Occlusion of the internal carotid arteries. *In* Williams, D. (ed.): Modern Trends of Neurology. Second Series, Chapter 7, pp. 91-104. New York: Hoeber, 1957.
12. Thomas, E. W.: Current Status of Therapy in Syphilis. J.A.M.A., 17:162, 1956.
13. Thomas, E. W.: Syphilis, Its Course and Management. Chapt. 2, p. 317. New York: Macmillan, 1949.
14. Today's V.D. Control Problem. Fifth Annual Joint Statement by the Association of State and Territorial Health Officers, The American Venereal Disease Association and The American Social Hygiene Association, February, 1958.

A survey of six large American cities shows a sharp increase in infectious syphilis between 1956 and 1957. The study by the Venereal Disease Branch of the Communicable Disease Center, Atlanta, Georgia, reveals these increases—up 236 per cent in Boston, 194 per cent in Washington, D. C., 147 per cent in Chicago, 249 per cent in Houston, Texas, and 220 per cent in Los Angeles and San Francisco, together.

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
Gordon C. Dieterich, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 OCTOBER, 1959 NUMBER 10

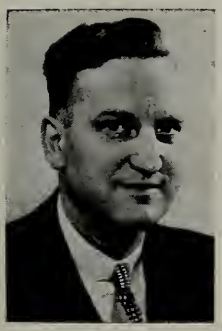
Contributors to This Issue



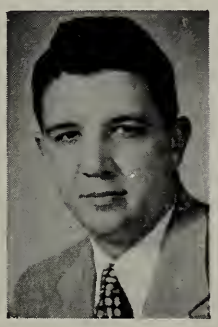
LEO A. HOEGH



A. E. HEUSTIS, M.D.



J. E. LOFSTROM, M.D.



R. L. MAINWARING, M.D.



GEORGE MOORE, M.D.



RALPH M. SHEEHAN



RONALD YAW, M.D.



M. O. YOUNG, M.D.

Table of Contents

Your Medical Role in National Emergency *Leo A. Hoegh* 1605

Regional Organization and Planning and Peripheral Community Responsibility *Albert E. Heustis, M.D., M.P.H.* 1608

The Public Health Problem in Non-Target Area Counties *Charles P. Anderson, M.D.* 1612

Brief Medical Notes on Nuclear Warfare *Rear Admiral Charles F. Behrens (MC) USN (ret.)* 1615

Problems in Nuclear Radiation Casualty Management *Irving D. Laudeutscher, M.D.* 1619

The Management of Massive Radiation Injuries *James E. Lofstrom, M.D.*, and *Darwood B. Hance, M.D.* 1623

Some Applications of Radioisotopes in Clinical Medicine *F. Ross Birkhill, M.D.*, and *Rosser L. Mainwaring, M.D.* 1628

Uses of Radioisotopes in Industry *Richard Abowd, Jr.* 1633

"C. A. Conshus, M.D." 1638

A Report on Federal Emergency Hospitals and Medical Supplies *George Moore, M.D.* 1639

The Civil Defense Role of the Hospital *Ronald Yaw, F.A.C.H.A.* 1647

Civil Defense and You *Ralph M. Sheehan* 1650

Emergency Child Birth 1652

Physiologic Principles in the Treatment of Diabetic Acidosis *Randall G. Sprague, M.D.* 1653

Prevention and Management of Postgastrectomy Symptoms *Millington O. Young, M.D., F.A.C.S.* 1662

The Case for Medicine to the People *M. E. Ellis, M.D.* 1667

Editorial 1671

President's Page 1672

Obstetrical Brevits 1677

New Building—Third Report 1678

Michigan's Department of Health 1682

In Memoriam 1684

News Medical 1692

Communications 1720

The Doctor's Library 1721

You and Your Business 1548

AMA Washington Letter 1596

PR Report 1598

MSMS Exhibits at Michigan State Fair 1599

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 OCTOBER, 1959 NUMBER 10

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. ALLEN PAYNE, M.D.....Grand Rapids

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1959-1960

President.....MILTON A. DARLING, M.D.....Detroit
President-Elect.....K. H. JOHNSON, M.D.....Lansing
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Vice Speaker.....H. F. FALLS, M.D.....Ann Arbor

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman*, Calumet
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
WM. A. SCOTT, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LeFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1964
R. J. MASON, M.D.	15th	Birmingham	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1964

MILTON A. DARLING, M.D.	*President*	Detroit
K. H. JOHNSON, M.D.	*President-Elect*	Lansing
J. J. LIGHTBODY, M.D.	*Speaker*	Detroit
H. F. FALLS, M.D.	*Vice Speaker*	Ann Arbor
D. BRUCE WILEY, M.D.	*Secretary*	Utica
W. A. HYLAND, M.D.	*Treasurer*	Grand Rapids
G. B. SALTONSTALL, M.D.	*Past President*	Charlevoix

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
T. P. WICKLIFFE, M.D.....Vice Chairman
W. M. LeFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
O. B. McGILLICUDDY, M.D.....Chairman, Finance Committee
J. J. LIGHTBODY, M.D.....Speaker
H. F. FALLS, M.D.....Vice Speaker
MILTON A. DARLING, M.D.....President
K. H. JOHNSON, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
Lyle Heavner, M.D.....Detroit
Chairman
George T. Bradley, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
Warren R. Moore, M.D.....Detroit
Chairman
Charles M. Bell, M.D.....Grand Rapids
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
Howard T. Knobloch, M.D.....Bay City
Chairman
John L. Doyle, M.D.....Grand Rapids
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Ann Arbor
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
William Bromme, M.D.....Detroit
President
Harry E. Lichtwardt, M.D.....Birmingham
Secretary-Treasurer

DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Crook	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expir
L. R. Leader, M.D., Detroit	19
Wm. Bromme, M.D., Detroit	19
J. R. Heidenreich, M.D., Daggett*	19
W. W. Babcock, M.D., Detroit	19
G. B. Saltonstall, M.D., Charlevoix	19
J. M. Wellman, M.D., Lansing	19
B. M. Harris, M.D., Ypsilanti	19

*To fill unexpired term of R. W. Shook.

UTIN

improved progestational therapy

BB HYDROXYPROGESTERONE CAPROATE

LALUTIN offers these advantages over other progestational agents:

- long-acting sustained therapy
- more effective in producing and maintaining a completely matured secretory endometrium
- no androgenic effect
- more concentrated solution requiring injection of less vehicle
- unusually well-tolerated, even in large doses
- fewer injections required
- low viscosity makes administration easier

LALUTIN is also potent and safe therapy for: threatened abortion; postpartum after-s; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated i genital malignancy; infertility with inadequate corpus luteum function; production of ctory endometrium and desquamation during estrogen therapy; premenstrual tension; menorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

ainistration and dosage:

use of its low viscosity, Delalutin may be admin-ted with a small gauge needle (deep intragluteal ction). Complete information on administration dosage is supplied in the package insert.

Supply:

Delalutin is available in vials of 2 and 10 cc., each containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

these healthy, normal babies was born by a mother with a documented previous history habitual abortion, who was treated during her most recent pregnancy with DELALUTIN.



utkowski
lle, Ill.



Rosanne Guberman
Elmont, L.I., N. Y.



Kenneth Michael Simonson
Denver, Colo.



Verderosa
d, N. Y.



J. Gettemy
Hartford, Conn.



Karen Mary Nederman
East Williston, N. Y.



Daniel A. Fabrizio, Jr.
No. Massapequa, L.I., N. Y.

SQUIBB *Squibb Quality—the Priceless Ingredient*

*DELALUTIN® IS A SQUIBB TRADEMARK.

You and Your Business

Pharmaceutical Firm Wins Injunction

Smith Kline & French Laboratories, Philadelphia pharmaceutical firm, has won a preliminary injunction against a Houston drug distributor for unfair competition and trade-mark infringement.

U. S. District Court Judge Allen B. Hannay, August 11, 1959, ordered Crown Drug Company to refrain from advertising and offering for sale imitations of any of the twelve SK&F products involved in the suit. The Court also enjoined the Houston firm from encouraging substitution of SK&F products with the imitations.

In addition, it also prohibited Crown Drug Company from making any reference in its literature to any of the trade-marks owned by SK&F.

In issuing the injunction order, Judge Hannay said the "obvious purpose and effect" of Crown Drug's advertising is to "invite druggists to substitute and palm off" its imitation products in filling prescriptions calling for SK&F's trade-marked products.

Judge Hannay ruled that "substitution by retail druggists of one drug for another called for by a physician's prescription is an unwarranted interference with the physician-patient relationship and a danger to public health." It is unethical, and in most states, including Texas, is condemned by law, he said.

Smith Kline & French Laboratories filed a complaint against Crown Drug Company on July 8 claiming actual damages of $200,000 and requesting punitive damages of $100,000. It also requested that damages be tripled.

Schedule for Regional Health Conferences in State

It will be easier for doctors to participate in the annual Michigan Health Conferences this fall as the project will go "on tour."

The pattern is being changed because the AMA National Rural Health Conference will be held in Michigan in 1960. The national event will be held at Grand Rapids, February 25-27. So rather than hold an annual 1960 spring Michigan Rural Health Conference, the sponsors have decided to conduct four regional health conferences this fall.

Each conference will stress three sections—one on "Health Careers" for high school youths, teachers and representatives of the many health professions; another section about the Importance of Good School and Community Health Programs," and a third section, especially for doctors, about the "Medical Aspects of Handling Severely Injured."

Communities selected for these special, one-day conferences are Marquette, Kalamazoo, Mount Pleasant and Detroit. The first one is scheduled for Thursday, October 29 at Northern Michigan College in Marquette. The remaining Conferences are slated for the first three Thursdays in November—November 5 at Western Michigan University, Kalamazoo; November 12 at Central Michigan University, Mount Pleasant; and November 19 at McGregor Memorial Conference Center, Wayne State University, Detroit.

Mrs. Paul Ivkovich, of Reed City, president-elect of the Auxiliary to the Michigan State Medical Society, has been named chairman of the attendance committee for the "Health Careers Programs" in all the Conferences.

Members of County Medical Societies are urged to attend the Conferences.

Highlights of the Executive Committee of The Council

Meeting of August 19, 1959 in Traverse City

- **Resolution** to the memory of the late Ralph W. Shook, M.D., Councilor and long time Chairman of the Finance Committee, was adopted by members of the Executive Committee of The Council standing in silent tribute.
- **Report of progress** on the new MSMS building was presented by K. H. Johnson, M.D. This included additional fire insurance coverage with added premium of $461.60.
- **The program for the cornerstone laying ceremony** of the new MMS building, scheduled for Sunday, September 27 at 3:30 p.m., and the materials to be sealed in the cornerstone, were approved.
- **Credit Rating.**—Treasurer Wm. A. Hyland, M.D., reported he had arranged, at the request of the Chairman of the Finance Committee, a credit rating at the Michigan National Bank of approximately $300,000.00 at a surprisingly favorable rate of interest, the loan based on the MSMS financial statement which obviates necessity of the Society's assuming a mortgage. Insurance companies asked for a higher rate of interest and a premium (penalty) if the loan were paid off in less than the originally specified number of years. This information was referred to The Council, September 27 meeting.
- **Veterans' Administration Hometown Care Program.**—Report was presented that the VA objects to Michigan Medical Service informing Michigan doctors about some of the changes in the new VA contract. The Executive Committee of The Council advised Michigan Medical

(Continued on Page 1558)

Passport

☞ a universal record of effectiveness

In anxiety, tension and agitation, ATARAX "... produced a more favorable state of calm and tranquility than any drug previously used."[1]

☞ widest latitude of safety and flexibility

No serious adverse reaction ever documented – five dosage forms and sizes

☞ chemically distinct among tranquilizers

Not a phenothiazine or a meprobamate

☞ added frontiers of usefulness

These unique benefits in specific indications

ANTIHISTAMINIC
ANTIARRHYTHMIC
ANTISECRETORY

BACKED BY A WORLD OF EXPERIENCE

Dosage: ADULTS, one 25 mg. tablet, or one tbsp. Syrup q.i.d. CHILDREN – 3-6 years, one 10 mg. tablet or one tsp. Syrup t.i.d.; over 6 years, two 10 mg. tablets or two tsp. Syrup t.i.d.

Supplied: Tiny 10 mg., 25 mg., and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Farah, L.: Internat. Rec. Med. *169*:379 (June) 1956. 2. Smigel, J. O., et al.: J. Am. Geriatrics Soc. *7*:61 (Jan.) 1959. 3. Feinberg, A. R., et al.: J. Allergy *29*:358 (July) 1958. 4. Eisenberg, B. C.: J.A.M.A. *169*:14 (Jan. 3) 1959. 5. Maryssael, L.: Bruxelles-méd. *38*:141 (Jan. 26) 1958. 6. Pfleger, R.: Med. Klin. *53*:1030 (June 5) 1958. 7. Over 200 laboratory and clinical papers from 14 countries.

ATARAX®

PASSPORT TO TRANQUILITY

(brand of hydroxyzine)



New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

Highlights of the Executive Committee of The Council

(Continued from Page 1548)

Service, as fiscal agent for the Michigan State Medical Society in this program, to continue advising Michigan physicians of changes in the VA contracts.

- **Medicare.**—The Medicare officials requested that a supplemental agreement be signed by MSMS which would change a fee contrary to previous agreement approved by the MSMS Committee (particularly Code No. 2447 which provided that subsequent exchange transfusions shall be 50% of Code No. 2446). The Executive Committee substantiated the action (previous agreement) of its Committee and instructed MMS to so inform Medicare.
- **D. Bruce Wiley, M.D.,** resigned as Councilor of the Fifteenth District having accepted the office of secretary of MSMS. The resignation was accepted, with a vote of appreciation for outstanding service.
- **Dates for MSMS Annual Sessions** in Grand Rapids for the years 1961-1963-1966-1968 were selected.
- **Arrangements were made for a joint meeting** of The Council with representatives of the National Blue Shield Plans in East Lansing, Sunday, September 27.
- **Uniform Fee Schedule for Governmental Welfare Agencies.**—The plan of distributing the newly-printed 1959 Fee Schedule was authorized.
- **Legal Counsel Lester P. Dodd** reported on recent meetings with officials of the Bay County Medical Society and with the Grand Traverse-Leelanau-Benzie County Medical Society for a discussion of two problems. Mr. Dodd's opinion on tissue committee records, as sent to a member in Saginaw, was reported; also matter of a certain physician sending letters to former patients and others advising them of his ability to render special medical service, which Mr. Dodd felt was an unethical rather than a legal question.
- **Committee Reports.**—The following reports were presented: Officers Night Dinner Dance, meeting of July 23; Venereal Disease Control Committee, meeting of August 6; Courses on Medical Economics and Ethics, meeting of August 12; Ninth Councilor District Medical Care Insurance Committee, meeting of August 5; Tuberculosis Control Committee, meeting of July 1; Relative Value Study Committee, meeting of August 6 (deferred to The Council meeting of September 27); Medical Advisory Committee to Michigan Hospital Service, meeting of June 25.
- **Matters of mutual interest** were presented by A. E. Heustis, M.D., Michigan Health Commissioner.
- **The development of a documentary report** on what the Michigan State Medical Society and its committees have done in recent years in connection with Michigan Medical Service was authorized. Copies of this factual document with no editorializing will be presented to all members of the MSMS House of Delegates on September 27.
- **The Executive Director** requested instruction on what items should be included in the Supplemental Annual Report of The Council. A number of recommendations were made.
- **Appointments:**

  1. Vice Chairman of The Council T. P. Wickliffe, M.D., Calumet, to represent MSMS at Kentucky State Medical Association Annual Session, September 22-24.
  2. John M. Dorsey, M.D., Detroit, to represent MSMS at Kalamazoo State Hospital Centennial, September 30.
  3. Chairman A. E. Schiller, M.D., and President-Elect Milton A. Darling, M.D., to represent MSMS at meeting to consider possibility of using Eloise and certain Veterans' Administration hospitals for teaching purposes.
  4. Ralph E. Carlson, M.D., of Iron Mountain, as member of the MSMS Medical Advisory Committee to Michigan State Medical Assistants Society.
  5. Ruth Herrick, M.D., Grand Rapids, to the MSMS Venereal Disease Control Committee.
  6. Luther R. Leader, M.D., Detroit, plus the secretary of the Medical Care Insurance Committee, to represent MSMS at the AMA Conference on Relative Value Studies, Indianapolis, September 12.
  7. E. H. Watson, M.D., Ann Arbor, to represent MSMS on Project Committee on Adoptions of Michigan Welfare League.
  8. J. W. Rice, M.D., Jackson, and Public Relations Counsel H. W. Brenneman to represent MSMS at meeting of American Association of Medical Assistants, October 14-18.
  9. L. A. Drolett, M.D., Lansing and D. Bruce Wiley, M.D., Utica, to represent MSMS at AMA national Legislative Conference, St. Louis, Mo., October 2-3.

- **Public Relations Counsel's report** included announcement of Press Dinner for 1959 Annual Session; progress report on TV Committee Survey; report on MSMS exhibit at State and county fairs; advertising of Annual Session through local newspaper advertisements; television publicity at Annual Session; and MSMS policy re bill in Congress covering deductions from federal employes' salaries toward health insurance.
- **A vote of thanks** was extended to President-Elect and Mrs. Milton A. Darling for their hospitality to the Executive Committee of The Council on this occasion.

...Pathibamate®

meprobamate with PATHILON® tridihexethyl chloride Lederle

for relieving tension and curbing hypermotility and excessive secretion in G. I. disorders

PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

meprobamate (400 mg. or 200 mg.)—a tranquilizer and muscle-relaxant widely accepted for the effective management of tension and anxiety

PATHILON (25 mg.)—an anticholinergic long noted for producing prompt symptomatic relief through peripheral, atropine-like action, yet with few side effects

now available...

PATHIBAMATE-200 Tablets

200 mg. meprobamate • 25 mg. PATHILON

for more flexible control of G. I. trauma and tension
smooth, sugar-coated, easy-to-swallow

PATHIBAMATE-400 and PATHIBAMATE-200 are indicated for duodenal ulcer; gastric ulcer; intestinal colic; spastic and irritable colon; ileitis; esophageal spasm; anxiety neurosis with gastrointestinal symptoms and gastric hypermotility.

Supplied: PATHIBAMATE-400—Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride 25 mg.

PATHIBAMATE-200—Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: PATHIBAMATE-400—1 tablet three times a day at mealtime and 2 tablets at bedtime.

PATHIBAMATE-200—1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.

Adjust dosage to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

AMA Washington Letter

THE MONTH IN WASHINGTON

Congress this year failed to take final action on any legislation of major interest to the medical profession except for the annual appropriation for medical research.

However, work was started on three measures of particular concern to physicians—the Forand, Keogh-Simpson and International Health Research bills. Showdown votes on them are probable next year. If there are no votes next year, they will die and must be reintroduced in 1961 if the subject is to be considered further by Congress.

The House Ways and Means Committee held hearings on the Forand bill, but deferred showdown voting on it until next year. The legislation —which is vigorously opposed by the medical profession, other groups on the health team and the Eisenhower Administration—would provide hospital, surgical and nursing home care for federal Social Security beneficiaries. Social Security taxes would be raised to help finance the expensive program.

The Keogh-Simpson bill, after being approved by the House, was left hanging in the Senate Finance Committee. The Senate committee held two sets of hearings. It could vote early next year on the legislation which would grant income tax deferrals to physicians and other self-employed persons as an incentive to invest in private pension plans.

Chairman Oren Harris (D., Ark.) postponed until next session a vote by the House Commerce Committee on the Senate-approved international medical research bill because of a backlog of more urgent measures requiring committee action this year. He said that "a diligent effort" would be made during the recess to clarify a number of points at issue revealed in testimony before his committee.

The bill calls for an annual $50 million authorization to finance a new national institute of health to foster international medical research programs and co-operation. The Administration opposes some of its provisions.

President Eisenhower and Arthur S. Flemming, Secretary of Health, Education and Welfare, made clear that they didn't feel bound to spend the additional $106 million which Congress voted for medical research. Congress raised the $294 million requested by the President to $400 million.

Mr. Eisenhower expressed concern that Congress is going too fast in providing medical research funds which are administered by the National Institutes of Health. He warned of a danger that the quality of research projects might be lowered and that manpower and other resources might be diverted from "equally vital teaching and medical practice."

He directed that every project approved must be "of such great promise that its deferment would be likely to delay progress in medical discovery."

Secretary Flemming said that the President's criteria would be followed conscientiously. But the Secretary gave assurance that the restrictions would not be so rigid as to hamper research by denying funds for worthwhile projects.

One of the most important and surprising developments during this session of Congress was the political power shown by Mr. Eisenhower, a lame-duck Republican president, in generally calling the shots on legislation although Democrats controlled the House and Senate with substantial majorities.

In his fight against "big spending" measures sponsored by Democrats, the President effectively used his veto power to get the bills more to his liking. The Democrats were unable to muster the votes to override vetoes of two housing bills.

A third compromise housing bill retained three provisions of interest to the medical profession. One would provide Federal Housing Administration loan guarantees for building proprietary nursing homes. A second would provide FHA loan guarantees and direct loans for housing for elderly persons. The third would authorize loans for construction of housing for interns and nurses.

* * *

Primary responsibility for radiation health safety has been transferred from the Atomic Energy Commission to the Department of Health, Education and Welfare.

Such a shift in responsibility was called for in legislation pending in Congress but President Eisenhower ordered the transfer without Congressional action.

The President directed HEW to "intensify its radiological health efforts and have primary responsibility . . . for the collation, analysis and interpretation of data on environmental radiation levels such as natural background, radiography, medical and industrial uses of isotopes and x-rays and fall-out."

HEW Secretary Flemming also was named chairman of a cabinet-level Federal Radiation Council.



. . . and one to grow on

A tiny tablet of REDISOL to stimulate the appetite — to help in the intake of food for growth.

REDISOL is crystalline vitamin B_{12}, an essential vitamin for growth and the fundamental metabolic processes.

Ideal for the growing child, the REDISOL tablet dissolves instantly on contact in the mouth, on food or in liquids.

Packaged in bottles hermetically sealed to keep the moisture out and to retain vitamin potency in 25 and 50 mcg. strengths, bottles of 36 and 100 — in 100 mcg. strength, bottles of 36, and in 250 mcg. strength, vials of 12.

Also available as a pleasant-tasting cherry-flavored elixir (5 mcg. per 5-cc. teaspoonful) and as REDISOL injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

REDISOL®

cyanocobalamin, Crystalline Vitamin B_{12}

MSD

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

REDISOL IS A TRADEMARK OF MERCK & CO., INC.

PR REPORT

MSMS Has Successful Legislative Season; No Let-Up Seen in Future

This year the talk in the legislative halls in Lansing was about taxes.

Little else mattered for seven and a half months as both political parties fought to gain support for their own tax philosophies. In the end, the income tax scheme was defeated, and the penny increase in the use tax (sales tax) was adopted, coupled with a slight alteration of the business activities tax. As passed, the tax package received the general approval of the medical profession.

There is some doubt as to the constitutionality of the use tax measure at this writing and this question is now being appealed to the Michigan Supreme Court. Since the use tax increase provides the bulk of the 128½ millions of new revenue, a substitute tax plan would have to be developed if the court tosses it out.

In spite of their preoccupation with fiscal problems, lawmakers this year introduced 134 bills which dealt with problems of health, and were therefore of concern to the medical profession.

Some were "repeaters" of past years, covering a variety of subjects such as atomic energy control, polio vaccine, tuberculosis hospitals and drunk drivers. Some were new, affecting ambulance regulations, commitment of the mentally ill and denturologists.

On the national scene, the Congress declined to pass either the Forand Bill, which would provide hospital and other health care to Social Security recipients, or the Simpson-Keogh Bill, which would grant tax equity to self-employed persons who establish their own retirement programs, although this latter bill did manage to pass one house this year.

All signs indicate that next year will be very crucial for both of these measures and it is expected that state medical societies and the AMA will be extremely active on both these particular bills.

Mounting interest of physicians in legislative affairs this year is indicated by the increasing number of delegations of doctors that visit Lansing and Washington to meet with their home-town Legislators. Particularly on the state level has this rapport between the lawmaker and his doctor-constituent been strengthened.

Annual Registration Effective Next Year

Beginning next January, Michigan M.D.'s will begin paying an annual registration fee to the Board of Registration in Medicine. Following recommendations of the 1957 House of Delegates, the Legislature set the yearly levy at $5.00, reduced to $30.00 the present $50.00 charge made to new doctors taking their initial Board examinations prior to entering practice, and eliminated the present registration of doctors with county clerks.

Similar bills have been introduced in the past three years, but not until this year have mounting administrative costs of the Board, coupled with static revenues, forced adoption of the law. Legislators assured MSMS that the $5.00 figure was adequate and that they foresee no need for increasing it in the predictable future.

Registration will be directly with the Board and will be required of all doctors in practice in the state, whether they are members of MSMS or not.

Non-Citizen Physicians Gain Private Practice Privileges

An easing in the shortage of doctors is in prospect with passage this year of a bill granting the Board of Registration in Medicine some discretion in licensing "foreign" doctors.

Until now, immigrant doctors from other countries could not enter private practice in this state until they became United States citizens. They were limited to practice on the staff of a hospital, for a maximum of five years.

Effective immediately under the new law however, a non-citizen may apply for an annually renewable one-year license to practice, provided he (1) has graduated from a school or university approved by the Board, (2) has agreed to apply for and accept U. S. citizenship, (3) has completed one year of rotating internship in an approved hospital in the state, and (4) passes the Board examinations.

Pamphlet of the Month

For your reception room this month, Doctor, the Public Relations Library offers "Are You Fit to Drive?", an AMA pamphlet which discusses physical reasons why a person should not drive an automobile and encourages the patient to discuss this problem with his physician.

To obtain free copies, write MSMS Public Relations Library, P.O. Box 539, Lansing 3, Michigan.



Sidney E. Chapin, M.D., Chairman of the Wayne County Medical Society PR Committee, and Everette Gustafson, M.D., Chairman of the Oakland County Medical Society PR Committee, demonstrate office equipment to an exhibit visitor.

MSMS Exhibits At Michigan State Fair

A fair within a fair was held in Detroit at the Michigan State Fair when an entire building was devoted to health exhibits.

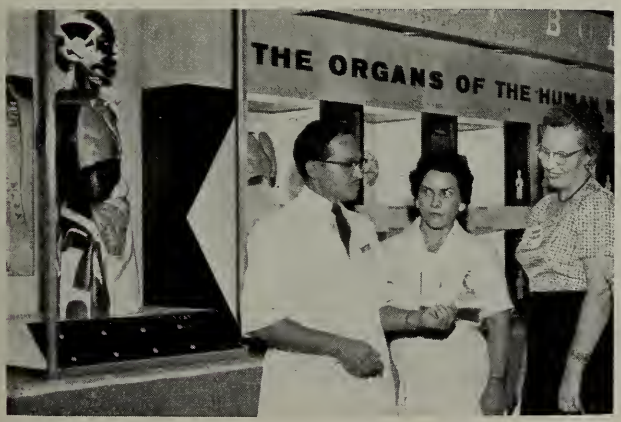
During the week of September 7, more than 800,000 persons trouped through the huge Fairgrounds at the corner of Woodward and Eight Mile Road.

The State Fair management was especially pleased with the high interest shown in the Health Exhibits. This was the first year that all health-medical displays were consolidated under one roof.

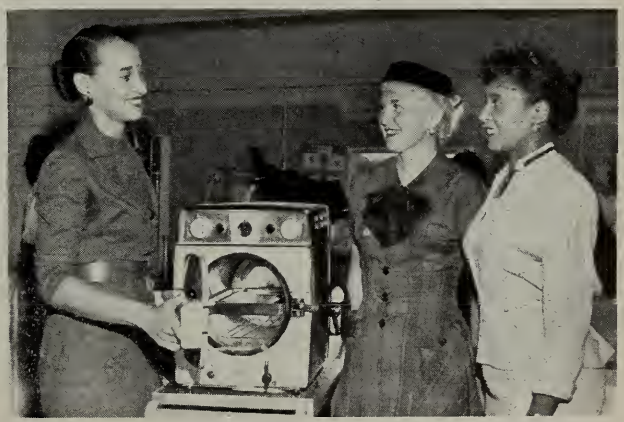
The MSMS exhibit extended for 35 feet and incorporated many of the pieces of equipment used in an M.D.'s office. On hand were doctors from Wayne, Oakland and Macomb counties to demonstrate the machines and devices. Also assisting were members of the Wayne Auxiliary and the Michigan State Medical Assistants Society. More than 200 volunteers contributed their services.



Crowds jammed the MSMS exhibit at the Michigan State Fair.



The MSMS exhibit included a large "Your Body" display from the American Medical Association. Shown with the AMA public information exhibit are E. S. Maxim, M.D., representing the Macomb County Medical Society; Mrs. James Gilliam, Detroit Medical Society Auxiliary, and Mrs. J. Whitlock Gordon, Wayne County Auxiliary.



Mrs. Earl E. Weston, center, president of the Wayne Auxiliary, discusses her duties at the MSMS exhibit with two members of the Detroit Medical Society Auxiliary, Mrs. Malcolm West, and Mrs. Addison Prince. More than 200 volunteer workers helped to staff the popular exhibit.

Open To All Physicians . .



1959 Symposia

OKLAHOMA CITY, OKLAHOMA
Fri., Oct. 2, 1959, The Skirvin Hotel

BIRMINGHAM, ALABAMA
Sun., Oct. 11, 1959, The Dinkler-Tutwiler Hotel

TACOMA, WASHINGTON
Wed., Oct. 14, 1959, The Hotel Winthrop

TRAVERSE CITY, MICHIGAN
Fri., Oct. 23, 1959, The Park Place Hotel

LUBBOCK, TEXAS
Sat., Oct. 31, 1959, The Lubbock Country Club

ST. CHARLES, ILLINOIS
Wed., Nov. 4, 1959, The St. Charles Country Club

DALLAS, TEXAS
Fri., Nov. 6, 1959, The Hilton Hotel

WICHITA, KANSAS
Sat., Nov. 7, 1959, The Hotel Broadview

SCHENECTADY, NEW YORK
Thurs., Nov. 12, 1959, The Mohawk Golf Club

CORPUS CHRISTI, TEXAS
Fri., Nov. 13, 1959, The Robert Driscoll Hotel

RIVERSIDE, CALIFORNIA
Sun., Nov. 15, 1959, The Mission Inn

SANTA BARBARA, CALIFORNIA
Wed., Nov. 18, 1959, The Santa Barbara Biltmore

MOLINE, ILLINOIS
Wed., Dec. 2, 1959, The LeClaire Hotel

1960 Symposia (incomplete schedule)

DENVER, COLORADO
Sun., Jan. 10, 1960, The Cosmopolitan Hotel

AUSTIN, TEXAS
Fri., Jan. 15, 1960, The Commodore Perry

POCATELLO, IDAHO
Sat., April 2, 1960, The Bannock Hotel

MOORHEAD, MINNESOTA
Sat., April 9, 1960, The Frederick Martin Hotel

SALT LAKE CITY, UTAH
Fri., April 22, 1960, Hotel Utah

ST. LOUIS, MISSOURI
Sun., May 1, 1960, Chase-Park Plaza

SANTA ROSA, CALIFORNIA
Fri., Sept. 16, 1960, The Flamingo Hotel

GREAT FALLS, MONTANA
Sat., Oct. 22, 1960, The Rainbow Hotel

CHARLESTON, WEST VIRGINIA
Sun., Oct. 30, 1960, The Daniel Boone Hotel

In cooperation with medical organizations throughout the United States, Lederle continues to offer aid to post-graduate medical education through its Symposium program. Upon completion of the schedule above the number of Symposia presented will exceed 200 since the first meeting, sponsored by the Knoxville (Tenn.) Academy of Medicine eight years ago. Each meeting presents prominent authorities discussing important advances in clinical medicine and surgery. Activities are also planned for physicians' wives.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York Lederle

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 OCTOBER, 1959 NUMBER 10

Your Medical Role in National Emergency

Leo A. Hoegh

I AM particularly pleased at the initiative of you members of the Michigan State Medical Society in dedicating this issue of your magazine to the vital subject of civil defense.

As Director of The Office of Civil and Defense Mobilization, the agency responsible for weaving together all the elements of the survival program known as civil defense, I am constantly aware of the role you physicians would play in the event of an attack on our country.

I do not predict that any nuclear attack is going to be made on the United States. I do not expect one. I do know that such an attack is not impossible, and that so long as there are nuclear weapons and the Russians have the ability to deliver those weapons, we must have a 100 per cent ability to survive such a blow as a nation, to recover from it and go on to win.

Surely, no potential enemy in his right mind would start the holocaust which would be World War III. Yet you, as doctors, know that many unhappy events are started by accident or miscalculation. The frightening concept of an H-bomb attack causes some to shrug off the implications of it all. You hear (we most certainly do, every day) such comments as, "Oh, this talk of super bombs and searing death is nonsense," or, "Well, if they drop one, I hope it hits me right on the head."

I am convinced these are not the thoughts of most Americans, and certainly not those of responsible ones.

You people who represent the medical profession are, by the very nature of your calling, almost automatically dedicated followers of any efforts toward civil defense. For one thing, you have been trained by education and experience to expect "anything" and prepare for it even as you hope it will never occur.

To many laymen, your efforts to overcome diseases and afflictions are vague programs, which "someone" is working on. To you, they are personal, compelling assignments.

To many others again, accidents, such as those in traffic, are something one doesn't think about and which the papers shouldn't dwell upon since they are repulsive to read about. To you, each victim represents a human tragedy requiring your utmost skill, sympathy, and sweat. Each is a matter which causes you heartache and concern as you fight to sustain life.

To most, the terms "the docs are here" or "the medics have taken over" seem to mean that everything is under control. To you doctors it means only that, once again, you've been assigned the task of maintaining life no matter how difficult the situation may appear.

I need not try to delude you about the awful implications of thermonuclear warfare. You, bet-

Mr. Hoegh is Director, Office of Civil and Defense Mobilization.

ter than others, realize what enemy H-bombs on the United States would mean.

You know, without half-scanning the scientific description of these bombs and missiles, or chemical or biological warfare, that any such attack would make much of the United States a virtual hell for a time. You might be faced with decisions and actions you never dreamed of when solemnly taking the Hippocratic Oath.

When I talk of civil defense in action during a real emergency, I think of you physicians on our home fronts, striving to sustain life and help survivors get back onto their knees and then onto their feet.

America *has* to live! And if we can somehow build this determination into a nationwide, unswerving certainty, we will have done much to prevent the ghastly thing of H-bomb attack from ever occurring here.

This, however, has to be accomplished at the local level. OCDM can only guide and counsel from the national level—and we find that you doctors are among our most valued allies in getting across the message of preparedness to our people.

Should an H-bomb attack come, our regression to standards we associate with "grandfather's day" may come overnight. There may suddenly be a temporary curtailment of communications. Certainly there will be disruption of transportation, food, and medical supply deliveries, and most of the services upon which we have come to rely.

In a word, overnight, those of us who survive the initial attack will have to be prepared to protect ourselves and our families for as much as two weeks, perhaps entirely without help from the outside.

I presume you doctors, along with the hospitals and clinics you serve and the medical supplies and stockpiles upon which you rely, will come through any such attack in about the same proportion as the other elements of our population.

Those of you who "come through" will have your work all laid out for you.

In addition to the many daily decisions and actions for such normal events as childbirth, serious illnesses, and ordinary surgery, you suddenly will find yourself faced with hundreds of casualties, and functioning quite likely with a kit with which even your grandfather, were he a doctor in 1890, wouldn't have been too happy.

You'll suddenly be operating as long as you can stay awake and carry on. Your hospital may be a tent or a barn. It might be one of the 1,900 Civil Defense emergency hospitals of 200-bed capacity which OCDM has prepositioned throughout the United States. Again, by good luck, it might be the same glistening new hospital you work in today, which escaped destruction.

You and your aides may have agonizing, split-second, decisions to make when you encounter mass casualties.

These, if they ever occur, would indeed be grim days.

I shall not dwell at length upon these possibilities. Surely you have thought of them; perhaps you have, or soon will have, discussed them at some medical meeting where the implications of such an attack will be the topic.

Rather, I shall move on to a more optimistic theme. This is the premise that most of our population can survive any H-bomb attack on the United States if they will just take the basic steps *now* to assure their safety. Millions of lives could be saved—and you, when you seize the opportunity to do so, can help this vital civil defense program along by having the basic facts at your command.

Our OCDM National Plan sets forth the specific mission of each level of government—Federal, State and local—for professional organization and for individual citizens. All of the civil defense principles and responsibilities for protecting life and property are clearly presented in this document.

It revolves around the goal of protecting life and property from the effects of attack by preparing for and by carrying out emergency actions to prevent, minimize, and repair injury and damage. It spells out the functions, one by one, on how the mission is to be accomplished, and by whom.

I can give it to you fast, the five points we are urging on all Americans through the wallet cards, which millions including yourselves probably carry:

1. Learn warning signals and what they mean.
2. Know your community's plan for emergency action.
3. Learn protection from radioactive fallout. This means—know enough about the silent, deadly fall-out from a nuclear explosion to prepare a shelter, preferably underground. Be prepared to

stay in a shelter at least two weeks if necessary. Any shelter is better than no shelter, but you can do the job right by dropping a card to OCDM Home Shelters, Battle Creek, Michigan, to get simple instructions. If you have no shelter when attack comes, you may die, for fallout may well cover most of our nation.

4. Know first aid and home emergency preparedness.

5. Understand Conelrad, which means tuning to 640 or 1240 on your radio dial for emergency instructions in the event of attack.

If every American would conscientiously put these five simple but important rules into effect now, we could guarantee the survival of millions of Americans who would otherwise die in the event of attack!

Meanwhile, OCDM has many other supplementary programs in operation.

We are working hard on the Continuity of Government program, which would assure a continuation of legitimate government in case of war. It would prevent a breakdown of this most essential service by setting up lines of succession, providing for preservation of records, emergency government locations, and emergency conscription of government resources and personnel. Forty-three states have introduced all or part of the suggested Continuity of Government legislation. Thirty-two have secured passage of all or part of this legislation in both houses, and the action has been formally approved in thirty of these.

We are working on Survival Plans which will cover at least 98 per cent of the population under programs worked out individually to cover local contingencies.

We strive without letup to urge Americans to build their own home shelters as a fundamental survival requirement.

We are carrying on a vast program of education in the basics of radiological defense. Hundreds of thousands of persons are being trained to help detect the presence or absence of fallout.

I cannot overemphasize how important it is that we take every possible meaure *now* to make positive that America and the free world will survive in the off-chance that World War III ever starts.

With nuclear war, the battlefronts will be our own front yards, be they in Michigan, Florida, or California. We must accomplish everything possible *now* to prevent any such catastrophe as may come with an attack which finds us unprepared.

POPULATION CHANGES

Professor Philip M. Hauser, Director of the University of Chicago's Population Research Center, addressed the physicians of the Association of American Medical, Clinics, September 25, 1959. The present generation is the only one in history that has lived through two world wars and a major depression, Dr. Hauser said, pointing to the effect of the great swings in the birth rate upon the age groups of our people. Between 1900 and 1950, while the total population doubled, the school-age group increased only 40 per cent and the aged (over sixty-five) increased four times over. Between 1950 and 1980, Dr. Hauser forecast a total population increase of 52 to 80 per cent, a certain increase of 98 per cent in the number of people over sixty-five, and a likely increase of 76 to 130 per cent in the high school-age group. But while the younger and older age groups are increasing, persons twenty-five to forty years of age—the most productive years—"are likely to remain at about a constant number over the next fifteen years."

The tremendous rise in birth rates has been matched by rapidly falling death rates. Between 1915 and 1958, the general death rate in the U. S. declined from 13.8 to 9.5 and Dr. Hauser predicted that by 1980 this rate may range from 8.8 to 8.4. To maintain medical services at present levels will require a great expansion in medical practitioners and facilities, especially pediatric services which must be prepared to more than double in twenty years; and geriatric services, which must definitely double to maintain present levels of medical attention to our senior citizens. If the birth rate stays up the number of obstetricians must increase 50 per cent by 1980.

Regional Organization and Planning and Peripheral Community Responsibility

Albert E. Heustis, M.D., M.P.H.
Lansing, Michigan

SOME of the casualties are condemned to death. They will show vomiting within a few hours of the bombing. Survival will be measured in days or weeks at the most. Other casualties will show some vomiting which subsides in a few hours. Various symptoms may appear one to three weeks after the bombing, including hemorrhaging, loss of hair, ulcerations of the mouth and infections of wounds and burns. The death rate will be high in this group if they are untreated. Still others who show no vomiting on the day of the bombing may still have had a significant dose of radiation. Some of this group may show symptoms later and will die if untreated. Thousands will flee the devastated areas, seeking shelter, food and care.

This description of victims of an atomic disaster is based upon material issued by the Office of Civil and Defense Mobilization. While it may be difficult to accept the real possibility of atomic, biologic or chemical warfare, and even more difficult to plan how the medical and other health professions would handle their responsibilities in any such situation, this acceptance and planning is required in the interest of civil defense for the people of Michigan. We must accept the possibility of major disaster. We must plan how to deal with it.

While the effort does, indeed, partly represent a response to the rumbles of multimegaton weapons, this also is a way to prepare for natural disaster. Michigan's experience with tornadoes and floods has shown the value of advance planning and inter-community cooperation.

Many communities have made good progress in health services civil defense plans. But most areas are not prepared to meet any wide scale emergency. As an example of the relative torpor, while health services regional planning has been urged for about two years, only one area of the state has so far started such organization. Thus, comment on area planning is presented here not as reality, but rather as a challenge. Medical leadership is needed.

Dr. Heustis is State Health Commissioner and State Medical Director, Civil Defense.

Responsibilities of Physicians

As well as contributing to state and national civil defense planning and keeping aware of developments in disaster care, civil defense asks you to take part in health services planning and training in your local community, in county-wide organization, and, insofar as possible, in regional planning. A fairly recent development, regional planning embraces a whole series of relationships among professions and localities, particularly between critical target areas most likely to suffer attack in the event of war and the surrounding support or peripheral areas. Because of its importance in the overall organization for civil defense, such planning deserves a high priority.

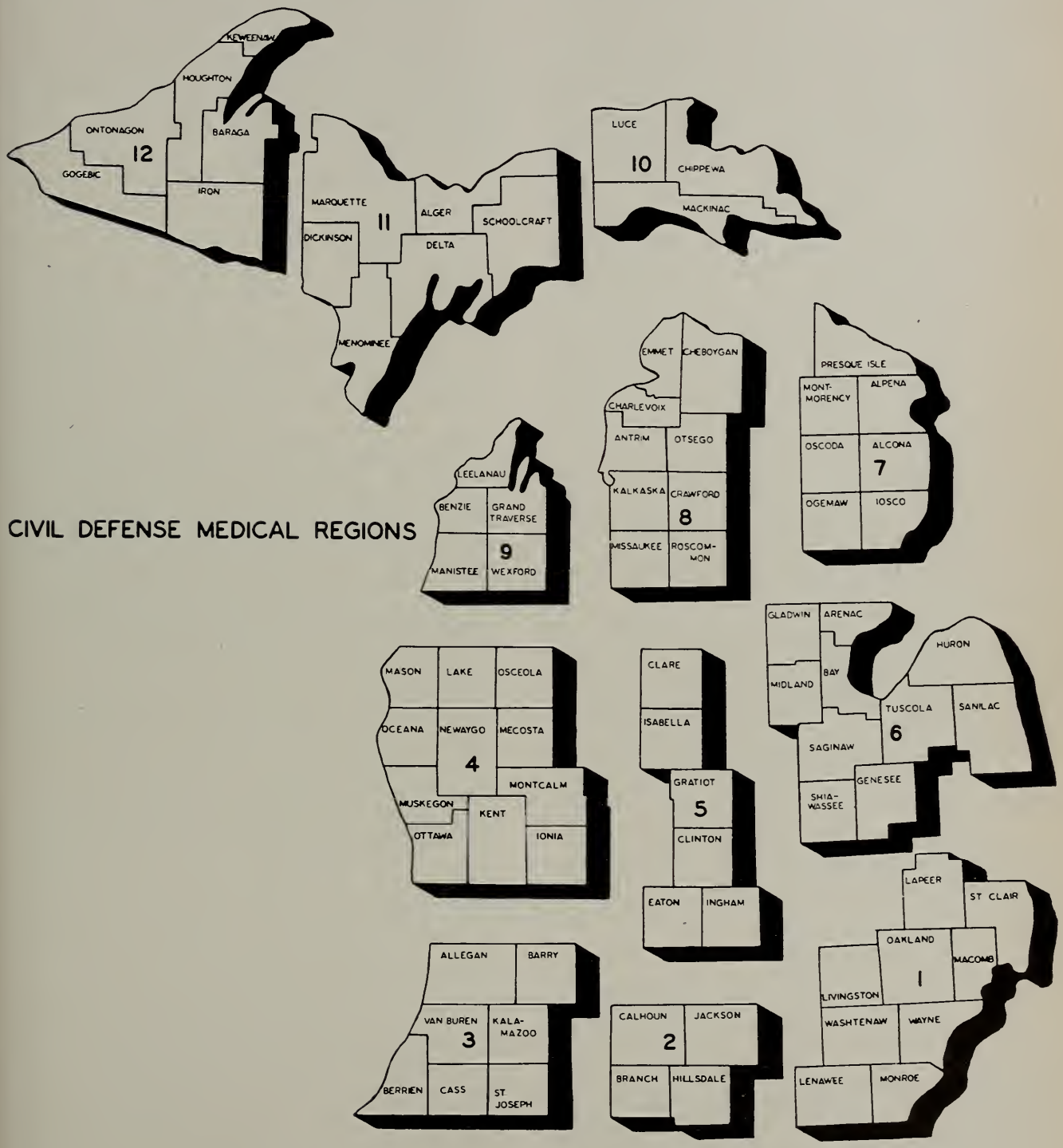
Background on Regionalism

Regional organization grew out of the well-founded fear that a plan based mostly upon local autonomy might well lead to sheer bedlam. Without some type of close liaison, the situation, particularly in support areas, could turn into a nightmare of miscalculations. The need is summed up in one of the items appearing in the Office of Civil and Defense Mobilization's "Principles of Civil Defense Operations":

"Even after full mobilization no section of a target area can be expected to have sufficient forces for complete self-protection. All civil defense forces of the area must be under the control of one authority and available for dispatch to any part of the area. Similarly, supporting forces outside the critical target area must be prepared to render aid. *To assure proper utilization of these forces, a practical plan for their use must be in existence." (author's italics)*

With special emphasis on providing for the best use of support area capabilities, the "practical plan" as adopted nationally and in Michigan calls for regional organization. The move for area planning had its beginning in Michigan in the fall of 1957, when the Michigan State Medical Society Committee on National Defense recommended that the Michigan Department of Health work

with the Society and with the Michigan Office of Civil Defense to set up regional defense organizations to cover the state. Primary responsibility was assigned to the Michigan Department of Health for two reasons: (1) the Department has the delegated responsibility for state medical civil defense and, (2) the State Health Commissioner serves as state civil defense medical director. The Medical Society Committee strongly recommended that the State Health Department, Michigan Office of Civil Defense, and the Society Committee, join to encourage physicians and others to give leadership in setting up the regional network.



Organization of Regions

The state is divided into twelve health services or "medical" regions (see map). These represent subdivisions of the five civil defense command control areas, with headquarters in Escanaba, Benton

Harbor, Mt. Pleasant, Owosso and Ann Arbor. Planning for each health services region will be carried out through an executive committee. Ideally, this committee will cover all communities and concerned professional groups in both support and target areas.

County health services civil defense committees are the basic building blocks for the regional executive organization. In naming county committees, consideration should be given to including practicing physicians, the county or district health officer, nurses, hospital administrators, veterinarians and dentists. The county civil defense director and civil defense directors of any municipalities within the county may be ex-officio members.

County committees in each area will be asked to review the proposal for regional organization. When the proposal is approved, the committees will be asked to choose representatives for the regional executive committee. At the first meeting of the regional group, it is hoped that:

1. A medical director, co-director and deputy for the region will be elected.

2. Consideration will be given to regional committee membership for persons in addition to the county representatives.

3. The regional committee will consider and outline basic functions.

This detail on organization is cited to indicate that the design for health services regional civil defense calls for an organization built from the bottom up, not the top down; an organization which is sensitive to all of the communities, counties and concerned professions in the area; an organization which can tap the strength and knowledge and imagination of all interested lay and professional groups in the area.

Regional Planning

Work of the regional executive committee will include preparation of an area health services civil defense plan and recruitment of people to fill positions. To do this job, the committee will need to determine characteristics and special problems of the area. This will depend upon variables such as the number of target or aiming areas in the region or nearby, the resources of support areas and the strength of current medical and public health organization in the area. Target areas in the state have been pin-pointed by the Michigan Office of Civil Defense. The health services phase of the county prototype survival plan—prepared by the state health department in close cooperation with many other groups—indicates some of the detail which should be encompassed by the regional plan. As examples:

Hospital Care.—Special effort is needed to plan for emergency hospital care. Each hospital should have a disaster plan. The "Michigan Hospital Disaster Plan" available from the Office of Civil Defense—originally developed in Detroit—is a workable and widely used model. In addition, basic supplies and equipment for 200-bed emergency hospitals have been provided through the Michigan Office of Civil Defense. These units are intended to augment available hospital facilities in support areas. At present, Michigan has been allocated fifty-eight of the emergency hospital units—our full quota. These are stored in strategic areas. In addition, three emergency hospital units for training purposes have been made available in Detroit, Oakland County and at the University of Michigan. The regional committee should help plan how these hospital units might be put to most effective use. Realistic plans for hospital care obviously can be made only after determining the probable evacuation pattern of target areas and the availability of professional and trained personnel in the support areas.

Training.—A second area of critical concern is training, which should be guided by a realistic area-wide plan. Special training is needed in handling radiation damage and in dealing with widespread chemical or biologic contamination. Scope of the possible emergency is indicated by a list of thirty deadly diseases—many of them exotic—which could be used by an enemy in germ warfare. The need for trained auxiliary help of many types is virtually boundless. The regional committee should stimulate area-wide training programs for various groups, including control center units, emergency treatment station groups, emergency hospital groups, blood collection groups, and groups to help carry out radiological monitoring. Resources which can be used in training include Red Cross courses and materials available through the Michigan Office of Civil Defense.

As these two examples indicate, the development of regional organization is intended to help bring about a comprehensive assessment and gradual improvement as necessary of area medical

and health resources which might be used in time of disaster. The regional committee should meet periodically to evaluate plans and progress and to work out problems—not only in developing the sound, area-wide medical civil defense organization, but also in maintaining interest and support for this umbrella which literally may mean the difference between life and death for thousands of Michigan people. The regional organization will only be as effective as the effort which the physicians and other health professions of the area put into it.

Status of Regional Organization

To date, as already indicated, most of Michigan's regional health services organization for civil defense exists only on paper. Little has been done for one reason: the state health department was given the responsibility without necessary funds to do the job.

In view of limited resources available, it was deemed wise to start by attempting to develop one regional organization as a pattern for the state, rather than to begin in many areas simultaneously. The area chosen for a trial is southeastern Michigan, a concentrated target area.

Preliminary organization steps have been carried out in this region. A regional executive committee has been formed and has elected a director. The committee is beginning to consider some of the problems of the area.

Peripheral Responsibility

As anticipated, one of the difficulties is trying to provide practical, effective goals and plans for peripheral or support areas. In case of atomic, biologic or chemical warfare, these areas—the cities and communities removed from target areas —would receive thousands of evacuees including the persons who have suffered radiation exposure or contamination to various degrees. As well as caring for the evacuees and casualties, the support areas would be relied upon to provide mobile help for the stricken areas. The problems are formidable, as the following questions show:

"We only have 30 doctors to handle 100,000 people now—how could we care for evacuees?"

"How can we provide for emergency nursing help when we can't even get nurses for routine county services?"

"How can we train volunteers without added manpower and budget?"

"How can we plan for an emergency when we really have very little idea of what the real scope of the problem would be?"

Such questions cannot be ignored. Yet, they also should not cause planning efforts to bog down. While perfection is not anticipated, as indicated in the health services phase of the county survival prototype plan, there are a wide variety of jobs to be done. Limitations in one aspect of the effort should not short-circuit the rest. The county plan makes some points worth emphasizing:

1. Maximum use will be made of existing facilities, equipment and personnel within each community. To the greatest extent possible, the organization and operation of civil defense services will be incorporated in existing units of government, rather than being a separately administered organization established for that purpose. In other words, target area and support areas, working together, plan to make the best use of available resources. It is suggested that joint effort and ingenuity focused on the problems of how resources can be stretched might both serve the cause of civil defense, and also help improve other community health programs.

2. The local director of civil defense will appoint, wherever practical, the local full-time health officer as Director of Health Services. This is recommended since the local health director often is in the best possible position to help co-ordinate county efforts and to help develop relationships between the local groups and the regional organization.

3. Local representatives of physician and other health professions will be appointed as members of an advisory committee to the local civil defense director and the director of health services. This would intensify existing co-operation and help bring a continuous exchange of information between medical groups and lay civil defense authorities.

As these examples indicate, every attempt is being made to keep health services civil defense planning on a practical, realistic basis. The peripheral area cannot be expected to produce an abundance of trained personnel in the manner of a magician pulling rabbits from a hat. But it can be expected, for its own good and the good of nearby areas, to plan to help to the limit

(Continued on Page 1627)

The Public Health Problem in Non-Target Area Counties

Charles P. Anderson, M.D.
Detroit, Michigan

IT is sometimes stated that the public health problem in non-target area counties in the case of enemy attack will be the same as under normal conditions with only a variation in the extent of activities. This opinion might well be open to question since there is the distinct probability that non-target areas will have serious interference with their normal supplies of power, food, medical supplies and communications. The responsibility for providing proper sanitation, living conditions, adequate water supplies, adequate food supplies, protection against epidemics, may be the same, but the facilities will be sadly lacking. In addition to the above problems, it is generally accepted that the public health departments are responsible for defensive plans against biological and chemical warfare and, of course, would have to meet the problem of radiation fall-out from the attack areas.

The State has prepared an outline for planning with individual counties, and in addition, the American Public Health Association has had task forces working upon the problem to try to anticipate all of the needs of the community under wartime circumstances. Most planners agree that there must be intensive education of the public to provide for as much self-help as possible since official agencies will not have the staff to protect against all emergencies. Education on protection from radiation, detection of evidences of biological warfare, the provision of individual safe water supplies and food supplies, must be a way of life for each citizen whether he be in his own community or whether he is an evacue from some attacked area. The primitive and crowded conditions under which millions of people would be living would encourage upper respiratory infections and the spread of common communicable diseases. Persons with chronic diseases, such as diabetes and other disorders dependent upon specific drugs or treatment, although not strictly a public health responsibility, would turn to governmental agencies for the necessary supplies.

History of war in other countries has always shown an increase in the number of cases of tuberculosis and venereal disease because case finding activities and isolation of such patients are usually abandoned in the face of more pressing needs. It has also been found that certain nuisance infestations, such as lice, pediculosis, and minor diseases such as impetigo, become exceedingly annoying without warranting active control programs. The mental health of the population is seriously affected by prolonged displacement from their natural environment or by the disturbances caused by others entering into their home life. In the event of enemy attack, there is no prospect of the early return of displaced persons to their original homes; in fact, for the survivors, the prospect would be one of an entirely different way of life under most inadequate circumstances. This, again, becomes a matter of education so that people may recognize the adequacy of sewage, waste and disposal facilities that in the normal way of life are considered very primitive. Health departments at all levels can and should provide in advance at least this much education and advice. They should strive also, so far as resources permit, to assist the family to secure and maintain sufficient supplies and equipment needed to support and protect itself, for a minimum of seven days. In case of "fall out" radiation problems, this is a most difficult task, involving both the determination of what is needed and convincing the citizens of the importance of providing against this exigency.

Public health officers should take the lead in marshaling and coordinating efforts of all health and medical personnel to develop and maintain adequate civil defense plans and programs. Civil defense activities should be built into all on-going programs fully utilizing all of the public health organizations' regular staff and all of the professional societies' volunteer organizations and groups of any character. Their tasks would include the

Dr. Anderson is Detroit Deputy Health Commissioner and a Member of Michigan State Medical Society Committee on National Defense.

establishment of a standby emergency operations organization which would be ready to go into action when an emergency occurs and which would be able to direct the activities of evacues to the needs of communal living.

In the pre-attack phase, it is the responsibility of existing health departments to have an exact, accurate knowledge of potential water sources and the necessary steps to make them potable. Water is one of the commodities basic to human existence, for though man can exist for days without food, he can exist only a short time without water. Much of Michigan has adequate ground water supplies for its existing populations of sufficient purity that specific treatment is not indicated. All of Michigan has relatively available surface water supplies in the form of lakes, although in the event of a national attack they would probably be rendered useless because of radioactive fall-out. Normal home water consumption averages about 50 gallons per capital per day, but it has been suggested that under disaster conditions for long term existence, a minimum of 10 gallons per day per capital could be endured. The Army plans 15 gallons per day per capita under field conditions in temporary camps.

The availability of these water supplies is jeopardized by the possible lack of power and, in addition to the problem of contamination by fall-out, there would always be the possibility of chemical or biological contamination by saboteurs. The quantity of material required to render a public water supply dangerous for human consumption is not great. It is estimated that 10 lbs. of botulinus toxin in a million gallons of water would be extremely hazardous. Slightly larger amounts of chemical poisons would have a similar effect. Besides the possibility of enemy attack, there would be an intensification of routine problems. Sewage treatment plants, if not damaged, might well be inadequate to care for the additional numbers of persons in the community, and thus contaminate water sources. The health department will have to ascertain what, if any, contamination exists before any remedial measures are initiated. Methods of detection of radiological contamination are available through simple survey-type instruments. Unfortunately, there is not a good rapid method for detecting biological agents of contamination and evaluation of the water supply may depend upon certain changes in chlorine residuals and chlorine demand. Decontamination of radiologically contaminated water supplies is difficult, perhaps impossible, on a community basis. Such contamination would require the provision of a new water supply.

Emergency sources of water may be found in domestic hot water heaters, water tanks, melted ice cubes, but, of course, they are exceedingly limited in amount. Auxiliary sources of water will almost certainly have to come from underground sources because the possibility of radiological contamination is virtually eliminated underground. Industrial wells, irrigation wells, resources of the individual domestic rural supplies, should be tabulated in every county. Since the people will not necessarily be located at the source of supply, distribution through tank trucks and storage facilities, such as canvas water tanks, will be an essential portion of public health planning.

The second major problem facing the health department that must be preplanned is waste disposal. These plans require tremendous modification, extensive and intensive revisions of normal sanitation protective measures. The problem of water supply might well make it imposible to operate existing water-carried sewage disposal systems. Failure to solve waste disposal problems will expose critical water supplies to gross contamination besides contributing to rat and insect problems. The most feasible emergency method of human waste disposal would probably be the use of latrines. They would be constructed in parks, in vacant lots, and other unpaved areas. They would have to be at least 100 feet from any well or water supply and, of course, located downgrade from these areas. Emergency provision is usually one seat per 25 persons. The use of bags or cans emptied into disposal trucks which would haul excreta to some disposal point is a potential additional solution. In hospital installations, such a provision is mandatory. Much has been written about industrial waste, but it is difficult to visualize anything approaching normal industrial activity for a long period after enemy attack. Refuse disposal, however, would be a real problem. The collection and disposal of garbage, rubbish and dead animals must be provided for in the public health planning. A complete physical inventory of all possible emergency excreta and rubbish disposal facilities, plus a record of sanitary supplies, such as odor control chemicals, lime, and construction and maintenance

equipment are an important part of the county public health planning.

Although the provision of foods and milk may not be the responsibility of the health department, the determination of their safety will almost certainly remain a public health responsibility. Here, again, there are always the possibilities of radiological, biological and chemical contamination due to enemy attack, besides the normal hazards associated with food supplies. It is quite probable that laboratory services will be inadequate and the usual safeguards applied at the source will not be in operation. Storage, because of lack of power, may also be a serious problem and it may be necessary to live off the land, using raw fruits, vegetables, milk from nearby farms and locally slaughtered meats. In feeding large groups of people in mass feeding centers, health problems will be intensified. Certain hazards, such as initial quality of food and water and the provision for cleaning and sanitizing utensils, are involved in mass feeding operations under any conditions, and of course, they would be complicated by disaster conditions. The food poisonings that we have today are usually associated with lack of basic knowledge in the matter of sanitation. This, also, can only be combatted by more intensive education. Fortunately, packaged foods, properly opened, have been proven free of radiological contamination. Fruits and vegetables that can be peeled or skinned or have the outer layers cut off, have also been proven to be safe. It may be that by following the correct pattern in handling food, the initial evaluation of radiological contamination can be minimized. Physical methods for removing contaminated material, such as washing with detergents and sanitizing agents, abrasion, wiping off with various materials or peeling or trimming off the outer parts of food, will provide an initial safe food supply and later, evaluation of contamination can be performed. The health department should have for its general knowledge, an estimate or inventory of possible sources of food whether in processing plants, warehouses or distribution centers. An estimate of what decontamination methods may be necessary will also be needed. In addition, there should be plans for salvaging and decontaminating food stocks as a continuing measure. Perhaps rules on food sanitation practices in mass feeding centers should be laid down and a nucleus of persons trained in their observance. In part, this is useful information in the community for daily living.

An important factor in the control of communicable disease in the community is the reporting of their existence to the health department. The provision for immunization of the population before an emergency arises would be a very valuable procedure. Most communities have their children adequately protected against diphtheria, whooping cough and smallpox, but in many cases this protection is questionable in adults. Routine immunization against typhoid fever as a civil defense measure has been advocated by some but has met with little or no success thus far. The provision of safe water and food supplies can do much to prevent epidemics of diseases, such as typhoid, diarrhea, dysentery and botulism. It is possible that proper waste disposal will give protection against these same diseases that might be carried through insects. Upper respiratory infections are almost impossible to guard against.

In these days of easy communicable disease control, it may be difficult to motivate public health people to organize and to take action against the public health hazards of modern war. Control of epidemics, spontaneous or induced, will depend upon well known moves: First, rapid and simple methods for bringing cases to the attention of public health workers. Second, assignment and development of public health teams that can direct sensible moves and take independent action on the basis of suspicion even before an exact diagnosis is made. Third, the readiness of these teams to supervise and direct specific countermeasures in diagnosed or suspected epidemics, such as the isolation of infected cases, the decontamination of environment, the control of vermin, the institution of vaccination and other immunization practices, or institution of mass treatment. Fourth, the determination of availability of basic supplies to carry out the above activities. Fifth, the preparation of the public by familiarizing them with the chain of command in health activities and the identification of designated public health operators by name and location, as well as training them to accept the authority of these groups. The sixth possibility is that trained public health personnel will be moved to areas where epidemics have started or threatened. If every responsible person can be taught the importance of public health requirements, such as sanitation, waste disposal, and the like, for his immediate family, a tremendous problem would be simplified.

Brief Medical Notes on Nuclear Warfare

Rear Admiral Charles F. Behrens (MC) USN (ret.)
Bethesda, Maryland

WHEN one thinks of nuclear weapons, it is is natural to place main emphasis on the megaton variety or so-called H bomb—a thermonuclear weapon with power equivalent to millions of tons of TNT. However, problems are not limited to these. Recourse to such engines of havoc is apt to be a last resort. It is well recognized that total war with thermonuclear weapons of this nature is likely to leave no real winners, but heirs to misery who can compare magnitudes of disaster in a shattered world. Wide ranges of bomb sizes are available and employment of smaller varieties is not unlikely. Aside from the consideration of total ruin, there are situations calling for less powerful weapons. The accompanying chart from the third edition of "Atomic Medicine," edited by C. F. Behrens, will provide a fair idea of comparative effects.*

In the chart, blast damage is given in terms of effects on multi-story brick apartments. These are quite vulnerable. It is notable that heavy windowless blast-proof construction is possible, that will sustain only moderately severe damage from air bursts in which the fireball does not touch the ground. Initial radiation is that occuring in the first minute and is comprised of gamma rays and neutrons. The time limit results from the rapid ascent of fireballs out of range. Flash burn distances are greatly dependent on atmospheric conditions as well as on bomb size, and also on clothing worn. The numbers in the chart refer to degree of burn (1st, 2nd, or 3rd).

Of primary concern is the awesome and overwhelming number of prospective casualties. An estimate from Operation Alert recounted in a congressional report* gives 8 and ¼ million dead the first day and 8 million dead within 6 weeks (about half of them from fallout). About 12 million would survive with a third recovering. Approximate estimates are based on presumption of attack on sixty cities in the United States and its possessions with thermonuclear weapons.

Aside from this general perspective, it is of vital importance to assess local magnitudes as early and accurately as possible. A practical and promising method is described by Lt. Colonel A. Steer,† U.S.A., based on a survey by helicopter or light plane to determine size and location of the crater and the zone of complete destruction. Casualty probabilities are derivable from this information assuming prior knowledge of population density. In Colonel Steer's method, four zones are taken into account with figures as follows: Zone I (complete destruction), 90 per cent killed, 10 per cent injured; Zone II, 60 per cent killed, 30 per cent injured, 10 per cent uninjured; Zone III, 35 per cent killed, 50 per cent injured, 15 per cent uninjured; Zone IV, 10 per cent killed, 30 per cent injured, 60 per cent uninjured. Size of the zones is related to the radius of complete destruction as shown below.

Ranges for thermal and indirect blast injuries

Radius Complete Destruction in Miles	Areas in Square Miles			
	Zone I	Zone II	Zone III	Zone IV
0.4	0.5	0.3	0.3	2.7
0.6	1.1	0.7	0.7	6.6
0.8	2.0	1.1	1.4	10.7
1.0	3.1	1.7	2.2	15.8
1.3	5.3	2.7	3.3	25.5

*Based on data from "The Effects of Nuclear Weapons," Government Printing Office, 1957.

Admiral Behrens is Roentgenologist, Yater Clinic, Washington, D. C. and Consultant in Radiology, National Naval Medical Center.

*House Report No. 2946, 84th Congress, 2nd session. "Civil Defense for National Survival." Gov't. Printing Office.

†Steer, A. Casualty estimates in nuclear warfare. Mil. Med., 118:4, 305-306, 1956.

BOMB SIZE AND TYPE OF DAMAGE	RANGES OF CERTAIN BOMB EFFECTS OF MEDICAL INTEREST IN MILES (Air Burst) (See Preceding Text)											
	¼	½	1	1½	2	3	4	5	10	20	40	NOTES
1 Kt. BLAST (Apt. Damage)	TOTAL	LIGHT	LIGHT	LIGHT								
1 Kt. FLASH BURNS (Degree)	3	2										
1 Kt. FABRIC IGNITION	MOST (~12 cal/cm²)	FEW (~3.5 cal)										
1 Kt. INITIAL RADIATION	LETHAL >3000 REM.	SERIOUS ~300 REM.										
10 Kt. BLAST	TOTAL	TOTAL	LIGHT	LIGHT	LIGHT	LIGHT						
10 Kt. FLASH BURNS	3+	3+	3	2								
10 Kt. FABRIC IGNITION	ALL	MOST (>12 cal)	FEW (~7 cal)	FEW (~3 cal)								
10 Kt. INITIAL RADIATION	LETHAL >3000 REM.	LETHAL ~2000 REM.	SLIGHT ~50 REM									
20 Kt. BLAST	TOTAL	TOTAL	MODERATE	LIGHT	LIGHT	LIGHT	LIGHT					
20 Kt. FLASH BURNS	3+	3+	3	2-3	1-2							
20 Kt. FABRIC IGNITION	ALL	ALL	MOST (>12 cal)	FEW (~7 cal)	FEW (~3 cal)							
20 Kt. INITIAL RADIATION	LETHAL	LETHAL ~3000 REM.	SLIGHT ~100 REM.	SLIGHT ~30 REM.								
100 Kt. BLAST	TOTAL	TOTAL	TOTAL	SEVERE	MODERATE	LIGHT	LIGHT	LIGHT				LIGHT DAMAGE TO ~7 MILE
100 Kt. FLASH BURNS	3+	3+	3+	3+	3	2-3	1-2					
100 Kt. FABRIC IGNITION	ALL	ALL	ALL	ALL	MOST >12 cal	FEW ~6 cal	FEW ~4 cal					
100 Kt. INITIAL RADIATION	LETHAL	LETHAL >3000 REM.	CRITICAL ~700 REM	SLIGHT ~100 REM.								
1 MEGATON BLAST	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	SEVERE	MODERATE	LIGHT	LIGHT			
1 Mgt. FLASH BURNS	3+	3+	3+	3+	3+	3+	3+	3+	1-2			
1 Mgt. FABRIC IGNITION	ALL	ALL	ALL	ALL	ALL	ALL	ALL	MOST >12 cal	FEW ~5 cal			
1 Mgt. INITIAL RADIATION	LETHAL	LETHAL	LETHAL	CRITICAL ~600 REM.	SLIGHT ~60 REM							
10 Mgt. BLAST	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	LIGHT	LIGHT		SEVERE DAMAGE TO 8 MILE
10 Mgt. FLASH BURNS	3+	3+	3+	3+	3+	3+	3+	3+	3	3		1st DEGREE BURNS TO 30 MILE
10 Mgt. FABRIC IGNITION	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	MOST >12 cal		
10 Mgt. INITIAL RADIATION	LETHAL	LETHAL	LETHAL	LETHAL >3000 REM.	LETHAL ~800 REM.	SLIGHT <30 REM.						
20 Mgt. BLAST	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	MODERATE	LIGHT	LIGHT	LIGHT DAMAGE TO 50 MILE
20 Mgt. FLASH BURNS	3+	3+	3+	3+	3+	3+	3+	3+	3+	3		2nd DEGREE BURNS TO OVER 30 MILE
20 Mgt. FABRIC IGNITION	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	MOST >12 cal	FEW ~4 cal	
20 Mgt. INITIAL RADIATION	LETHAL	LETHAL	LETHAL	LETHAL	LETHAL ~3000 REM.	SLIGHT ~80 REM.						

From "Atomic Medicine," Third Edition, 1959. Courtesy of Williams and Wilkins, Inc., Baltimore, Md.

far outstrip those for serious effects from initial ionizing radiation, as indicated in the chart, but numerous people protected from the former are liable to radiation injury, these radiations being highly penetrating. About 6 inches of concrete or ½-inch steel are required to attenuate the initial gamma rays by half.

Civil Defense planning has in the past been heavily oriented toward evacuation. However, the advent of long range ballistic missiles and probabilities of extensive fallout complicate the picture. The one grossly reduces likely warning time and the other cripples travel. Shelter programs thus assume vital importance. There is no question but that wide availability of heavy shelters would greatly reduce casualties in a population drilled to reach them in a matter of minutes. Objections, however, stem from very high estimates of cost and diversion of materials, and unfortunately it is all too easy to use such estimates as an excuse to do nothing. Comparatively modest programs can accomplish much in protection from fallout, which, depending on wind and weather, can heavily contaminate areas up to 240 x 40 miles, or more. Simple shelters below grade or basements surrounded by earth can reduce fallout radiation by a factor of about a thousand or more.

In connection with fallout, it is necessary to think of monitoring programs so that people can be advised when to seek shelter and how long to stay in the shelter. Monitoring thus poses a major problem. Thought is being given to development of a combined radio and radiation meter. It has also been proposed that distribution of such an instrument be made universal. My own opinion is that such wide distribution would necessitate a huge expense for dubious results. Careful maintenance and correct standardization are involved along with requisite background knowledge for judicious interpretation of results. These are not to be anticipated on any universal scale. However, a wide distribution of good survey instruments to selected, trained individuals is certainly an essential goal; also, virtually universal distribution of portable battery operated radios should be accomplished.

An important factor in civil defense is motivation of workers in that field. It is possible to arouse great public interest, support and efforts in a temporary drive especially when events provoke acute concern. A continuous effort is quite another thing. More thought appears in order both to secure a sufficiently large nucleus of full-time professionals and to create inducements to attract and hold numerous volunteers.

In the matter of medical responsibilities, everyone is well aware of the enormity and importance of the task of dealing with injuries and burns in the event of nuclear warfare. What is probably not as well realized is the importance of administrative control, plans for effective triage, the advance selection of buildings suitable for emergency hospitals, and public health problems. Finally a new emphasis on radiation hazards is now in order. These hazards are now of such magnitude and have been so sensationally presented that popular concern is exceedingly great. In fact, it has become excessive. Many alarming statements are made, often without sufficient quantitative data to provide a basis for proper evaluation.

As regards fallout from tests, there is great controversy about strontium, Sr 90, a twenty year bone seeking beta emitter, as to whether or not it is related to a possible increase in leukemia and genetic effects. Elaborate mathematical calculations have been made to indicate the degree of danger but it needs to be borne in mind that much uncertainty still pertains to the role of the minuscule doses involved. Again the body metabolism discriminates against strontium in favor of calcium. In respect to genetic effects, recent work by the Drs. Russel of Oak Ridge shows that dosages received at low rates are probably not as harmful as when received in an "acute" dose. Certainly, we wish to keep all exposure to a minimum, but the situation is far from being so urgent that valuable X-ray studies need be avoided or that we should risk falling behind in the matter of nuclear weapons. Our pre-eminence in that field may well serve to preclude nuclear attacks which, amidst great physical havoc, would cause gross exposures on a huge scale in comparison with which our increased exposure from tests fades into insignificance.

As regards more serious fallout exposure, this occurs when the explosion is sufficiently low so that the fireball contacts the ground. The updraft then carries with it much debris which is rendered radioactive and is the source of heavy fallout. Again bombs can be constructed to accentuate fallout. The greatest peril to health and life is from the external exposure to gamma rays emitted by the various fission products. However, the skin is also likely to acquire beta burns unless protect-

ed or promptly decontaminated through cleansing with plenty of soap and water. Such burns were very frequent in the Marshall Islanders accidently exposed to heavy fallout. Ingested or inhaled fission products did not notably contribute to the clinical picture. Experimental animals heavily exposed showed barely detectable radioactivity six months later. In periodic follow-up studies the Marshall Islanders appear to be doing very well.

The treatment of casualties has been well publicized in many articles and books and so only a few highlights will be mentioned here. Many advances relate to blood and tissue banks, including methods of preservation and storage as well as utilization. It may be possible to preserve red cells longer by a glycerine technique or possibly by quick freezing methods. Radioisotope techniques are notably contributing to studies of metabolism and electrolyte balance.

A study of much interest and promise is being made on anorganic bone and also on boiled and defatted bone from animal sources for surgical purposes at the Naval Medical Research Institute. The studies were initially directed by Captain F. L. Losee (DC), USN, and are presently directed by CDR H. W. Lyon (DC), USN. Anorganic bone is prepared by extraction methods employing ethelenediamine to remove all organic material. This bone can be stored indefinitely at room temperature and without special precautions. It can be autoclaved when needed for surgery and used regardless of animal source. Early clinical trials have been encouraging. However, this bone is very brittle and crumbles readily. Bone prepared by prolonged boiling and then extraction by a fat solvent such as ether, is quite strong. Tests on experimental animals show a high incidence of success without occurrence of sensitization.

In the case of burns, meeting the tremendous problem of skin grafts may be notably helped by the use of embryonic bovine skin.

In the field of radiation effects there is much of interest. Considering prophylaxis, a host of agents have been found of some help in experimental animals. Of the pharmaceuticals, only one is promising for wide scale human use: A.E.T. (S_2 B-amino-ethylisothiouronium Br, HBr). It appears to be of low toxicity, potent orally and highly effective.

It should also be kept in mind that protection of some bone marrow in the sternum and femora and of the upper abdomen to include the spleen can be life-saving and is entirely practicable. It is not necessary to think in terms of "armor plating" the whole body and so conclude that excessive weight makes it ridiculous. Limited protection would be a boon to "calculated risk" workers.

The use of bone marrow has come to the fore in recent years and has proven of great value prophylactically and also in therapy, the latter being dramatically exemplified in the successful treatment of a group of Yugoslav scientists accidently exposed to supra-lethal dosages in a reactor accident. (The Yugoslav scientists were treated at the Pasteur Institute, Paris, France.)

Splenic homogeneates have also proven of value along with platelet transfusions, the latter of course, in treatment of the hemorrhagic phase of severe radiation illness. Work on cell-free splenic extracts shows promise. A major difficulty with all these, however, relates to lack of availability in sufficient measure for the vast needs following a nuclear holocaust. The huge number of victims and the devastation will limit diagnosis and therapy largely to more conventional methods. However, these too can accomplish much.

Sharp clinical observations will serve to indicate the gravity of exposure fairly early even though desirable laboratory work is impossible. In therapy, main reliance will probably have to be on rest, sedation if and as necessary, bland, low residue diet, careful oral hygiene, fluid and electrolyte balance, antibiotics, transfusions and parenteral nutrients. Antibiotics should be reserved until counts fall below 1000 or signs of infections appear. Penicillin along with broad spectrum types by mouth are then usually advisable. Whole blood transfusions will likely have to be reserved for severe anemia. Plasma, albumin and amino acids may be needed in the anorexic stage.

In conclusion let us remember that medical preparation for civil defense will surely ameliorate even the worst situation; nor will such efforts though oriented primarily to war problems, be wasted if the devastations of nuclear war are avoided. Effective working organizations for medical work at the sites of disaster, control of traffic and distribution of patients, will pay big peacetime dividends. Considering tornadoes, hurricanes, fires, transportation accidents, floods and occasional earthquakes, there is no lack of disasters and the record shows that on many recent occasions there was great room for improvement in meeting their challenge.

Problems in Nuclear Radiation Casualty Management

Irving D. Laudeutscher, M.D.
Denver, Colorado

In treatises and in discourses on nuclear warfare, it has become practically axiomatic to treat all features of nuclear weapons in terms which imply that a complete departure from previously observed manifestations and experiences will characterize their effects.

Nevertheless, the blast and thermal effects of the nuclear weapon are no different in quality than the blast and thermal effects of older weapons and therefore call for no new therapy. Rather, the problem in servicing the blast and thermal casualties will be logistical, stemming from the magnitude of incidences. A tremendous disparity will be precipitated between the numbers who shall require medical service and the personnel and material available for rendering such service.

However, reverting to the matter of novelty in modern warfare, the nuclear weapon has indeed ushered in a new element medical-wise—a startling new element and one which differs radically from weapons effects of the past. Defenses of the past will no longer be adequate and few of the medical procedures empolyed in treating battle casualties heretofore will be effective.

I have reference, of course, to nuclear radiation, elaborated and disseminated by the processes of nuclear explosion. Since our most serious problems in casualty management have arisen due to the introduction of this factor, it is with these problems that this paper shall be concerned.

Studies on the effects occasioned by initial nuclear radiation and by residual nuclear radiation distributed by fallout patterns ensuing from major nuclear attacks, indicate that casualties resulting from ionizing radiation would exceed in number those caused by blast and thermal effects of the bombs, plus all other sickness occurring in the surviving population. The unmistakable indications are that in the event of nuclear attack, radiation sickness will overload our remaining hospitals, and overtax our surviving physicians and other medical personnel to a point that unless some special provision is made or some particular procedure is contrived, it may happen that decisions will have to be made either *not* to treat purely radiation sickness cases at all, or to treat only radiation sickness and nothing else. Presently, incontrovertible evidence demonstrates that medical resources—in personnel or facilities—do not exist to treat both.

Let me give you one example of the magnitude of the radiation problem which will be posed. On October 9, 1958, the Operational Headquarters of the Office of Civil and Defense Mobilization presented a briefing entitled, "The Basic Effects of Nuclear Weapons." An extract therefrom reads as follows:

> "Let us assume that one 20 megaton weapon has exploded on the surface of St. Louis, Missouri. With time and with weather conditions such as appear on a typical fall day in this area, one hour after the burst, serious fallout would encompass the entire metropolitan area of St. Louis and would extend about forty miles into southwestern Illinois. The radiation dose rates would be more than three thousand roentgens per hour and might be as high as ten thousand roentgens per hour at some points downwind of ground zero.
>
> "Seven hours after the assumed explosion, we find that a one hundred ten mile wide pattern of fallout has extended 185 miles downwind from St. Louis. The fallout has crossed Illinois and is beginning to affect western Indiana. The fallout has decayed by a factor of ten—from three thousand roentgens per hour down to a dose rate of three hundred roentgens per hour.
>
> "After twenty-four hours, the fallout pattern would extend some four hundred and seventy miles, penetrating deep into eastern Ohio. Although the fallout situation is less serious in eastern Ohio than it is in Illinois and Indiana, considerable radiation sickness and some fatalities could occur. The radiation level, which initially was three thousand roentgens per hour, has decayed further and after twenty-four hours, it represents a radiation dose rate of sixty-five roentgens per hour."

Thus, from a single twenty megaton surface explosion, an area of more than five thousand square miles has been seriously contaminated, and the millions of inhabitants residing therein saved

Dr. Laudeutscher is Regional Medical Officer, Office of Civil and Defense Mobilization, Region 6.

from radiation sickness only to the extent that they have followed rules for shielding in shelters or have avoided the path of fallout by timely evacuation.

Before projecting thought relative to requirements entailed in making special provision for servicing the extraordinary numbers who may be stricken with radiation sickness, it would perhaps be advisable to re-examine the symptomatology and other salient features of this malady and also briefly review the progress that research has made in devising modalities for its treatment.

Ionizing radiation was discovered as a consequence of fundamental physics research. However, no satisfactory information about the effects of radiation could be collected until reproducible conditions could be established. It had long been known that excessive exposure to nuclear radiations such as X-rays, alpha and beta particles, gamma rays, and neutrons which are capable of producing ionization, can cause injury to living organisms. However, so many variables entered into the production of biological effects that it became accepted that precise biological action of irradiation on tissues could be defined only within nebulous limits if predicated upon supposed dosage. While exposure to certain dosages for certain periods would usually produce certain biological effects, it became apparent that clinical symptomatology and laboratory findings were the more preferable indices in the determination of radiation effects in a given individual.

The symptomatology appears to be due to the ionization produced in the cells which not only destroys tissues required for normal organic functioning, but also, through the products formed in the process, is productive of toxic reactions. An important cell effect of ionization is, of course, the inhibition of cellular mitosis, the tissues most susceptible to mitosis inhibition being the hemopoietic and the gastrointestinal complexes. However, as Dr. Crawford F. Sams points out, "there is a great deal of evidence that functional responses of certain critical tissues in which mitosis is of minor importance or of no importance, may be more important in the over-all body response to radiation than the inhibition of mitosis in the hematopoietic tissue or in the lining of the alimentary tract."

Sams and the University of California group found that the more highly differentiated tissues which had always been considered to be radioresistant under one of the axioms of radiobiology are really sensitive. The evidence now seems to indicate that tissues such as the central nervous system and the endocrine system are highly sensitive functionally to comparatively low doses of radiation.

Clinically, we are confronted with the following symptomatology. When very large doses of whole body radiation has been suffered, that is, acute exposure to approximately 2000 or more roentgens, injury to the central nervous system is quickly apparent. There is practically immediate incapacitation attended by ataxia, hyperexcitability interrupted intermittently by stupor, convulsions, and marked respiratory distress. Death is certain, generally within several hours though in exceptional cases, the end may be delayed a day or even two.

If the dosage drops below 1000 roentgens, but still remains high, that is above 700, gastrointestinal symptoms appear early and are severe. Within the first several hours there is nausea and vomiting, followed by severe diarrhea. Hyperpyrexia sets in and, of course, there is marked prostration. If the dose is in the vicinity of the 700 roentgen range, periods of remission of two or three days may occur though during these remissions profound changes are taking place, particularly in the blood forming tissues. Then a recurrence of the earlier symptoms is seen, delirium and coma set in and the patient expires, rarely surviving two weeks. Aside from the foregoing symptoms, there may be seen in this group, stomatitis and pharnygitis, mucousal hemorrhaging and scalp epilation.

If the exposure has been to materially lesser doses, as for example between 300 to 450 roentgens, survival is possible. The initial symptoms are in many cases similar to those found in patients who have been exposed to the higher and almost invariably lethal doses, namely nausea, vomiting, diarrhea and prostration. These patients may have a latent period up to two weeks commencing the third day post-exposure. After the return of the symptoms, though some of these patients survive, practically all have a difficult time. There is marked tendency to internal hemorrhaging, hyperpyrexia and delirium, severe gastrointestinal symptoms, epilation, susceptibility to wound infection, lesions of skin, lips, mouth and pharynx and also marked emaciation. A general symptomatology characteristic of agranulocytosis is common. Death may ensue in two weeks to

three months. Those who survive three or four months, and do not contract serious intercurrent infections such as tuberculosis or severe kidney involvement, have a long siege of illness, but do recover.

Individuals who suffer exposure to doses of lesser magnitude than 250 roentgens will probably recover, but many of these undergo a course of illness similar to those exposed to the lethal doses except their symptoms are not as severe. During their periods of latency, these patients can do work. If they suffer no complicating infections, they generally recover in about two or three weeks.

I have detailed the foregoing symptomatology primarily to emphasize the extensive care required for these cases and the tremendous burden they will place on medical facilities and personnel.

It is to be regretted that in many quarters an attitude of hopeless defeatism has been exhibited on the question of medical care for the radiation sick. Even the desirability of giving supportive treatment of whole blood, antibiotics and general nursing care has been grudgingly assented to, but considered nothing more than a futile gesture. While this attitude of negativism has prevailed, nevertheless research in the field of therapy for radiation sickness has been making most encouraging progress. The proceedings of the Conference on Research in Radiobiology and Radiation Medicine, held in Washington in December of 1958, under the auspices of the Office of Civil and Defense Mobilization, revealed specific advances. Among these was the report on progress in the Section of Radiobiology at the Sloan Kettering Institute. Of marked importance in the study reported were the results obtained in healing late radiation lesions with tri-iodothyronine and thus opening a vast possibility of other remedial agents being found among thyroid analogues.

The Walter Reed Army Institute of Research, as reported by Lt. Colonel James B. Hartgering, is accomplishing protection through chemical means. He reported that while we are still a long way from a pill for the exposed soldier or civil defense worker, definite hope in this area is in the offing. Also evidence was produced that indicated that germ-free animals showed a markedly better survival rate as compared to conventionally bacterially contaminated animals. This study seems to imply that failure to expend every effort to treat the radiation sick intensively with antibiotics is tantamount to withholding a remedy which could mean survival for the patient.

One of the most gratifying reports was rendered by Dr. Leonard J. Cole of the Experimental Pathology Branch, U. S. Naval Radiological Defense Laboratory in which the following statements were made: "We know that the limiting factors in the survival of animals in the lethal single acute dose is the status of the bone marrow and the lymphoid tissues. We know that animals given bone marrow injections following a certain lethal dose will survive. That is to say, in the animals which are radiated and given no treatment, DNA content of the bone marrow drops very sharply and stays down until the animal dies. The animal given bone marrow infusions has an initial drop and then in four or five days we begin to see a very sudden and rapid-sharp increase in the DNA content which is a matter of regeneration of bone marrow." ". . . if you give transfusions of bone marrow, the animals survive. They survive and these surviving animals show a low incidence of leukemia which we feel is related to the fact that in the acute phase, after the transfusions of the bone marrow cells, you get very dramatic regeneration of the bone marrow and lymphoid tissue."

Then there were publications from the National Cancer Institute of the National Institute of Health. Dr. C. Gordon Zubrod reported for the Institute, ". . . that not only are advances being made in bone marrow therapy, but also that work is progressing with the chemical groups A.E.T. developed at Oak Ridge." He reported that, "A.E.T. given in large doses to animals cuts in half the effects of total body radiation."

I have included in this paper the allusions to progress in the research efforts to produce radiation sickness therapy in order to emphaize that with the development of specific therapeutics to combine with our present supportive treatments, there will be developed an effective armamentarium to combat the lethality presently identified with radiation sickness.

However, the availability of therapeutic means to afford a greater measure of survival of those afflicted with this ailment will be of little benefit unless we develop a reservoir of personnel trained to apply, under proper control and supervision, the modalities of treatment which will be made available.

The exigencies of the situation demand that

there be generated a corps of personnel who can be made capable of servicing those who will be stricken by nuclear radiation and thus relieve the physician of this burden—except to the extent to which it will be necessary that he exercise control, training, consultation and supervision.

In considering types of individuals to be recruited, the primary consideration should be that those selected for training be of an intellectual level which would bespeak their capability to master the instruction to be given.

Furthermore, in contemplating sources, consideration should be given to the fact that unlike the physiotherapist, or the psychologist, or the X-ray technician, or other paramedicist, who, when his training is completed finds employment in the field in which he has been trained, the lay volunteer trainee in nuclear radiation matters would have but little opportunity to apply the acquired skills. As a result, it is likely that he would not be prompted to keep his training refreshed nor long adhere to his group identification.

Therefore, an additional source has been considered embracing those who are in a vocation on the fringe, so to speak, of the medical field, such as the dental assistant, the commercial laboratory worker, the X-ray technician and others of like categories. It would be particularly desirable to enlist those who are licensed in their vocation. These could be marshalled for training and, with proper management, continued proficiency in the aspects of this special training could be made mandatory for the holding of their licenses.

Curriculum for training programs should be made comprehensive. These training programs should embrace as much of the field of nuclear radiation as is necessary to produce competency in dealing with the many facets of the problem. Specifically, training should include radiation monitoring, decontamination, nursing procedures, the handling of a hypodermic and of an intravenous set, some laboratory techniques, recognition of the symptomatology exhibited in the various stages of radiation sickness and in the various degrees of its severity, and didactically, as much on the subject of the biological effects of nuclear weapon's radiation as it is practical to transmit to lay people.

In reference to a program source and an overall teaching management, radiologists and particularly those who have devoted themselves to deep ray therapy and therefore have had much experience in radiation effects, would, of course, be the best fitted to devise, organize and plan courses of training.

The aim is to produce a corps of personnel, independent of the other paramedical groups, medical auxiliaries, and other medical aid groups, specially and specifically prepared to have delegated to them appreciable portions of the medical burden which nuclear radiation has ushered in.

In closing, I wish to point out that while in the event of emergencies of the magnitude that we envision, the shortage of medical skills makes it mandatory that certain priorities for treatment be exercised, that it cannot be permitted to mean that care of the cases that we label "expectant" shall be totally ignored.

We cannot allow a spectacle of thousands upon thousands of desperately sick and dying being permitted to expire unattended. Under such circumstances, the demoralization among our surviving populace would defeat the very ends for which the recent policies relative to priorities in the medical treatment of mass casualties have been devised. This situation will be most acute in the area of radiation sickness.

From all data that can be produced, it is obvious that the medical personnel resources under conventional management will prove too meager to cope with the problem.

It is equally obvious that American medicine would be taking an untenable position, in fact an unthinkable position, if it simply declares its inability to meet the situation.

A corps of men and women such as I have depicted, prepared to render the greatest possible assistance along the lines indicated, could prove to be a most useful factor in alleviating the tremendous pressures on our medical service that the gigantic problems of radiation medicine have precipitated.

MSMS speaks nationally for Michigan Medicine, contributes advice and service to American Medicine.

The Management of Massive Radiation Injuries

James E. Lofstrom, M.D.
Darwood B. Hance, M.D.

Detroit, Michigan

THE ever present possibility exists that we may be confronted with the necessity of treating a large volume of patients who have suffered radiation injury of various degrees. This could occur not only in time of atomic warfare but also due to industrial mishaps. It is, therefore, very important that some fundamental information be available on this subject in order to further our understanding of the processes involved and to give us a guide by which to manage these patients. The possibility of widespread use of personal dosimeters to determine the extent of dosage received is not feasible at the present time. Only in specialized occupations are personal dosimeters used routinely and none are at present available for the mass of the population.

The use of clinical laboratory techniques to detect changes in the blood elements and the chemical constituents of the body is a valuable adjunct to the clinical methods of evaluating radiation damage. In the event of mass injuries, existing laboratory facilities and trained personnel would be grossly inadequate to handle the problem. However, in a limited industrial catastrophe much help could be obtained through full utilization of laboratory procedures. Therefore, in mass disaster, such procedures should be used only in answering vital clinical questions, whereas in a limited disaster the laboratory could be used much more fully.

There remains nonetheless at the call of every clinician his most valuable asset in the management of radiological injuries—his own clinical appraisal and judgment. Emphasis in this article will be placed upon the clinical signs and symptoms and upon understanding the processes involved. Exact knowledge is not always possible in this regard, but from animal studies and a few human experiences, we can piece together a fair approximation of the true picture.

From the Department of Radiology—Wayne State University College of Medicine, Detroit Receiving Hospital and Detroit Memorial Hospital.

Hematological Changes

Lymphocytes are the most vulnerable to damage by radiation, and are the first to show its effects. The lymphocyte count undergoes a rapid drop which reaches a low point at the end of about five days and then the count stabilizes at a low level until the end of the fourth week. Following this, there is a gradual rise in lymphocytes if the patient survives and this rise continues to the end of about seven weeks when there is virtual complete recovery in favorable cases. If the lymphocyte count drops to less than 500 in the first twenty-four to forty-eight hours, it is a bad prognostic sign. If the lymphocyte count is found to be increasing after the first week, a more favorable prognosis is indicated.

Granulocytes show a transient rise in the first few hours and this may last up to forty-eight hours and then fall, reaching a low point after about four weeks. The recovery then parallels the change in the lymphocytic element. The transient leukocytosis in the hours following radiation exposure is due chiefly to the rise in granulocytes.

Erythrocytes show a gradual drop at first and then, especially after the third week, they may fall moderately reaching a low point at the end of about six weeks. Following this, they begin to recover with a moderate rise back to normal if the patient survives.

The platelet count falls gradually and reaches a low point at the end of about five weeks. If the platelet count falls to extremely low levels there is danger of death from hemorrhagic effect, this usually taking place between the fourth and seventh weeks. Capillary fragility is also noted during the period and may be related to the low platelet count.

In the cases of severest exposure, there may be a complete suppression of the white count so that the count will total only one to two hundred at the end of five days. Bone marrow studies on these patients invariably show a total loss of myelopoietic

tissue. These patients almost invariably have a fatal prognosis.

Signs and Symptoms

1. *General.*—Headaches, virtigo, debility, abnormal sensations of taste or smell.

2. *Gastrointestinal.*—Anorexia, nausea, vomiting diarrhea.

3. *Cardiovascular.*—Tachycardia, arrhythmia, fall in blood pressure, and shortness of breath.

4. *Psychic.*—Irritability, insomnia, fear, et cetera.

Specific Metabolic Changes

Water Balance.—There is absorption of water from the tissues into the blood stream resulting in a cellular dehydration with a hemo-dilution. Later, profound dehydration may occur depending upon the severity of the skin reaction, associated burns, and gastro-intestinal symptomatology.

Acid-Base Balance.—There is little effect unless the dose is high enough to produce gastrointestinal symptoms of moderately severe degree. There may be an initial acidosis for the first two or three days, followed by an alkalosis which is usually of a degree of severity related to the G.I. symptoms.

Inorganic Electrolytes.—There is a loss of chloride, sodium, calcium and also some loss of sulphur and phosphate. There is a paradoxical rise in the serum potassium.

Protein Metabolism.—There is an increase in the total protein chiefly due to the increase in the albumin fraction. This is present during the first week but returns to normal during the second and third weeks only to recur again during the second month. There is an increased nitrogen excretion in the urine but this may be related to diuretic effect which occurs during the second, third and fourth days following exposure.

Purine Metabolism.—There is an increased urinary excretion of purine occurring in the more severely radiated cases.

Fat Metabolism.—There is a decrease in serum cholesterol.

Carbohydrate Metabolism.—There is a decrease in the blood sugar for the first twelve to twenty-four hours, usually of minimal degree. Following this there may be a gradual but sustained rise to normal or slightly above normal level.

Vitamin C.—The levels of this vitamin are found to be consistently low, suggesting that this may be a factor in capillary fragility and also one of the factors in bone marrow depression since Vitamin C therapy in the bone marrow depressions may be of aid in affecting bone marrow recovery.

Histamine-like Effect.—Histamine-like substances are believed to be liberated during the tissue break-down subsequent to irradiation. It is found that histamine itself can produce most of the symptoms and metabolic changes of radiation illness. Histamine is also capable of producing the fatty changes in the liver similar to those seen following radiation injury. Treatment with antihistaminics has been used for years by some radiation therapists to allay the systemic symptoms during the course of treatment with some success.

Acute Radiation Syndrome

This can be divided into four general categories depending upon the amount of radiation received and the patient's individual susceptibility to radiation damage.

Supra-Lethal Range.—These are generally patients who have received a dose in excess of 1000 roentgens total body. They have a rapid course which usually results in death during the first one to two weeks. This begins with nausea and vomiting, occurring early in the first day, even after a period of one to two hours or less. This is followed by anorexia, malaise and severe diarrhea with excruciating thirst. A severe, step-like fever begins after the fourth and fifth day, and continues to rise until death. In the most severe cases, the fever will start after the second or third day. The earlier the start of the fever the worse the prognosis and the shorter the course to a demise. A significant clinical observation here is the absence of any significant latent period between the initial onset of the nausea and vomiting and the onset of continued severe diarrhea. These patients fall into a group where medical therapy at present has little to offer other than strong sedation and analgesics. The pathologic process which brings about their demise is centered in the severe necrosis of the gastro-intestinal tract, and those few that might recover from this will usually succumb to

the severe hemorrhagic affects of the thrombocytopenia.

Mid-Lethal Range.—This extends from 250 to 1000 roentgens total body radiation. In these patients, severe nausea and vomiting occur in the first or second day and there is a latent period of several days before the nausea and vomiting recurs. At this time a diarrhea may set in; the shorter the latent phase, the worse the prognosis, the longer the latent phase the more hopeful the outlook. The diarrhea frequently subsides after a varying period of time. At the end of the second week or the middle of third week, epilation begins to occur and severe malaise returns. This is followed by fever and pharyngeal pain due to a mucositis. About five days after the onset of epilation, the platelet count becomes seriously depressed, bleeding time increases, and capillary fragility will be present as evidenced by the Rumpel-Leede test. This can lead to multiple purpuric episodes with hemorrhagic spots being present throughout the body but most prominent on the upper half of the body, especially the head, face and flexure surfaces of the extremities and the anterior portion of the chest. Bleeding of the gums is noted during the brushing of the teeth at this time and the slightest trauma will bring about a purpuric spot. If the patient has lacerations or fractures, bleeding from the site of injuries will frequently occur during this period of time. With proper treatment, a large percentage of the patients in this group will show a gradually improving condition over a period of several months until recovery is evident.

Sub-Lethal Range.—These are the patients who have received from 100 to 250 roentgens. The patients usually manifest a mild nausea and vomiting on the first or second day. This is followed by a latent period. Following this, there may be a mild recurrence of symptoms of nausea and vomiting, or only a period of malaise. These patients then go on to recover and usually manifest none of the other symptoms listed above. However, if severe injuries, burns, or fractures are present, these patients show a tendency to delayed healing and greater tendency toward infection. Note especially that diarrhea is usually absent from patients who have received dosage in this range.

Sub-Clinical Range.—These patients receive less than 100 roentgens. They may be completely asymptomatic or have a mild transient nausea. Mild sedation is the only treatment indicated and there is no need for hospitalization.

Treatment of the Acute Radiation Syndrome

Treatment is most important in the mid-lethal range previously described since it is in this range that careful conservative therapy can greatly increase survival.

Water Balance.—Avoid dehydration by the early use of intravenous solutions of either plain or 5 per cent glucose in water or electrolytes. These should be given without hesitation at the first sign of clinical indication. Strict asepsis should be mandatory in all intravenous administrations given to patients following radiation injury due to the marked susceptibility to infection. Meticulous preparation of the skin site and sterile technique is imperative. In most cases a continuous drip system should be instituted to avoid repeated trauma to the veins.

Electrolyte Balance.—The administration of solutions of sodium and chloride with some added calcium should be given at the first hint of clinical deficiency. Administration of potassium should be avoided due to the tendency of these patients to develop hyperpotassemia. The clinical condition of the patient and the severity of the G.I. symptomatology will give one a fairly good estimation of the need of electrolytes.

Protein Balance. — Protein depletion in later stages of the radiation syndrome, especially in cases of severe diarrhea of long standing, can be combated with administration of blood plasma which will supply 50 to 60 grams of protein per 1000 cc. Also, it is well to remember that as much as 250 calories are present in 1000 cc of plasma. Continued administration of plasma is undesirable since it decreases the red cell production and there is the ever present danger of serum hepatitis; therefore, the plasma should be used only when strong clinical indications are evident and used especially sparingly in cases of mass disaster since a shortage of plasma would no doubt be very acute. The overall maintenance of nutritional state is somewhat difficult during the phase of severe nausea, vomiting, and anorexia. All oral intake should be sharply curtailed during the stage when the diarrhea is very severe since the

gastrointestinal tract seems to recover best when put at rest. Forced feeding during this stage of diarrhea seems only to add to the difficulty and may eventually injure the patient. After the gastrointestinal tract has sufficiently recovered, all feedings can be encouraged without danger.

Nausea and Vomiting.—Many preparations are available on the market which will help to relieve this symptom. The most effective of these are:

1. *Pyridoxine:* This is one of the more effective drugs and is usually given in a dose range of 25 to 50 mg. q.i.d. In the more severe cases this can be given intramuscularly; however, most will respond fairly well when given orally.

2. *Pacatal:* This drug is given in doses of 50 mg. q.i.d. and is very effective in controlling nausea and vomiting. It is also an excellent tranquilizer and can be used in lower doses in those who are very anxious or disturbed.

3. *Vesprin:* This drug is given in a dose of 10 to 25 mg. q.i.d. and has proved effective in many cases especially those with a strong psychic overlay.

4. *Sedation:* Adequate sedation with barbiturates and similar agents will prove effective in many of the milder cases.

5. *Antihistaminic drugs:* These can be used in some of the more mild cases to control the transient nausea and vomiting.

Control of the Hemorrhagic Tendency.—Toluidine blue and protamine sulphate have been advocated to control the hemorrhagic tendency occurring during the third to the fifth weeks. The effectiveness of this form of treatment is highly open to question. Avoidance of unnecessary trauma will probably do more to reduce the incidence of hemorrhagic lesions and aid in the patient's recovery. Transfusions of fresh whole blood are probably the only effective treatment in patients with severe hemorrhage.

Control of Anemia and Leukopenia.—Transfusions of whole blood should be given only when necessary, since the availability of the blood in a mass disaster would be limited. Since repeated transfusions tend to supress the recovery of the bone marrow, they should be kept to the necessary minimum and should be used only on those cases who are past the initial stage and have a possibility for recovery, especially if the supply of blood is very short. Bone marrow transplantation is still in the experimental stage but shows indication of possible promise especially in the border-line cases who are able to recover from the initial gastrointestinal insult but show lack of recovery of their bone marrow function. This will probably be most helpful in the high mid-lethal dose range (750-1000 r) the optimal time for the transplant does not seem to be as critical as formerly believed. Very meticulous typing procedures are necessary, and an adequate supply of donors is mandatory. This would, in itself, tend to limit the application of this procedure in the case of mass injury. Much work is being done on this question at present, especially in the treatment of acute leukemias, and further information may be gained from experiments now in progress.

Control of Infections.—Prophylactic use of systemic antibiotics is contraindicated since the emergence of a resistant strain will render the antibiotics used ineffective and produce a disastrous situation. Antibiotics should be used, however, at the slightest clinical sign of infection and the different types of antibiotics should be rotated in persistent infection to avoid the emergence of any resistant strains.

Adrenal Cortical Hormones in Synthetic Steroids.—These are known to have a protective effect on the liver in preventing fatty degeneration which occurs following irradiation injury. They are also of help in preventing the excessive loss of sodium and chloride. They protect against adrenal exhaustion and combat any tendency to shock. Possible disadvantage in their use is the masking of impending systemic infection; however, their use when indicated should definitely be tried.

Protective Substances.—This poses a retrospective problem since most probably little warning will be forthcoming prior to any severe radiation exposure. However, much work is being done at present on protective substances. Whether these materials may prove to be safe and effective, and whether they will be in wide-spread distribution in the near future, is yet to be seen. Actually one of the most important aspects of protection is avoidance of excessive irradiation from fall-out following the atomic disaster. This is not within

the scope of this article, but we refer you to the Civil Defense Technical Bulletin on this subject.

Treatment of Associated Burns and Wounds.—Thorough cleansing of burns and wounds with phisoderm or other hexachlorophine preparations to disinfect the area of burns or lacerations followed by careful debridement and necessary suturing of lacerations is necessary. Careful aseptic technique must be adhered to at all dressing changes. The use of topical antibacterial agents of the type not given systemically (Bacitracin, Polymyxin, Neomycin, Furosin) is advised when needed to control pathogenic bacteria on the skin.

Absolute rest and quiet is perhaps the single measure most important to the welfare of these patients. As one clinician, who had the responsibility of supervising the care of several patients exposed in the mid-lethal range stated, "The most important therapeutic weapon is a club—to be used to keep all the 'experts' away from the patients and prevent 'bleeding the patients to death' for laboratory tests." A conservative approach is the most rewarding.

Summary

1. Hematological and metabolic changes after radiation damage are discussed.

2. The acute radiation syndrome is described and a frame-work is set up for clinical assessment of the degree of damage.

3. The rationale and applications of modes of treatment are presented.

4. Prognosis can be more favorable than formerly supposed if careful *conservative* medical management is carried out.

Bibliography

1. Brucer, Marshall: The acute radiation syndrome (A medical report of Y-12 accident). O.R.I.N.S.-25, USAEC (April) 1959.
2. Medical Aspects of Nuclear Radiation: Fed. Civil Def. Adminis. Training Bulletin 11-24 (July) 1956.
3. Hollander, Alexander: Radiation Biology. Vol. 1. New York: McGraw Hill, 1954.
4. Stoll, Basil A.: New drugs for radiation sickness. Radiology, 68:380-385 (Mar.) 1957.
5. Congdon, C. C.: Experimental treatment of total body irradiation injury. Blood, 12:746-754 (Aug.) 1957.

REGIONAL ORGANIZATION AND PLANNING AND PERIPHERAL COMMUNITY RESPONSIBILITY

(Continued from Page 1611)

of its available resources. In a country in which neighborliness is a rich tradition, anything less than full co-operation between contiguous areas would be a mark of defeat for the values we would defend.

Summary

1. Intensified health mobilization is needed to prepare for possible enemy attack and natural disasters in Michigan. The leadership of physicians is essential.

2. Regional organization for disaster health services is required to provide for the best use of available resources in case of atomic, biologic or chemical warfare or other disasters which could cause area-wide emergency situations. The design for regional effort calls for an organization representative of the best area knowledge of health and medical resources to assess needs and to stimulate preparedness—including plans for use of facilities such as emergency hospital units and training plans and programs.

3. While peripheral or support areas face formidable problems in planning to help care for potential evacuees from target areas and to provide mobile help for such areas, civil defense is based upon co-operative planning to make the best use of what we have. Such joint effort on a regional basis would serve both the cause of civil defense and other programs.

If you are interested in taking part in regional organization of disaster health services in your area, write or call Albert E. Heustis, M.D., State Health Commissioner, Michigan Department of Health, Lansing.

Some Applications of Radioisotopes in Clinical Medicine

F. Ross Birkhill, M.D.
Rosser L. Mainwaring, M.D.
Dearborn, Michigan

OTHER sections of this JOURNAL'S present issue deal in detail with the sundry public health problems created by the advent of a nuclear age. It seems fitting that brief space should also be allotted to re-emphasis of the multiple uses to which various radioactive products may be put in the field of clinical medicine. Some of these materials are produced in fairly high yield directly from the fission process (e.g., I-131 and Sr-90) and thus can be separated from the other nuclear fuel end products for use in medicine. Other medically useful radioisotopes are produced artificially by exposure of elements to the slow neutron flux of a nuclear chain reactor or "pile." Despite the tremendous increase in isotope production, these materials are still not available to the large bulk of the practicing physicians as there are few hospitals or laboratories with the facilities and trained personnel to adequately supervise radioisotope service. Only a few of these radioactive materials of medical interest will be discussed here, chiefly to emphasize their clinical diagnostic and therapeutic utility against the background of problems relating to protection of large population groups from the potentially harmful long range somatic and genetic effects of fission end products in nuclear fall-out.

Radioactive Iodine—Diagnostic Uses

Radioactive iodine I-131 as indicated is one of the large group of intermediate mass isotopes resulting from the fission reaction. Its decay scheme is complicated, but the principal radiation consists of a beta particle of 0.6 Mev-max. and a gamma photon of 0.37 Mev. The half life of the isotope is eight days. Most of the therapeutic effect of this isotope as an internal irradiation source derives from ionization of the beta particles. The gamma rays, although providing in general 10 per cent or less of tissue ionization, are penetrating and readily detected by external counting techniques, so that localization and quantitative measurements at a distance are facilitated.

For diagnostic purposes the principles relating to the use of isotopes such as I-131 involve determination of the distribution and concentration of the radioactive substance within the body or its constituents after the material has been tagged to some physiologic substance. The isotope in the body will act like its stable congener, but will differ in its being detectable by radioactivity in various phases of metabolism. Most of the diagnostic procedures with I-131, as with other radioactive elements, can be cataloged under the following classifications: (1) metabolic functions; (2) isotope-dilution techniques; (3) tumor localization studies; (4) cardiovascular functions; (5) cytologic tagging methods.

The most important uses of I-131 in clinical diagnostic work include those employed in evaluation of metabolic activities of the thyroid gland. The isotope is admirably adapted to such determinations inasmuch as it is selectively concentrated by the thyroid and is therein synthesized into hormonal substances capable of regulating metabolic functions. Its temporary residence within the thyroid gland parenchyma facilitates uptake measurements at a distance as well as localized counting techniques for evaluation of discontinuities in gland I-131 uptake. It is agreed that most diseases of thyroid can be diagnosed satisfactorily by adequate medical history, physical examination, and basic laboratory work, such as serum cholesterol, and basal metabolic rate determinations. Follow-up evaluation by these tested clinical and laboratory methods is often adequate. However, in a smaller number of cases, the more refined techniques involving use of I-131 are valuable for assay of thyroid function.

The technique most frequently used relates to

Dr. Birkhill is radiologist on the staff of Oakwood Hospital, Dearborn, Michigan.
Dr. Mainwaring is pathologist on the staff of Oakwood Hospital, Dearborn, and a member of the Michigan State Medical Society Committee on National Defense.

the uptake of I-131 within a certain period which can vary from one to forty-eight hours, the twenty-four hour thyroid gland uptake being the most common in clinical use. The distinction between the euthyroid, the hyperthyroid, and the hypothyroid patient, can often be facilitated by such methods. Uptake studies are most useful in determining which patient with an enlarged nodular thyroid should undergo surgery, for it is known that thyroid neoplasms in general do not concentrate I-131 as well as does surrounding normal thyroid tissue. Further, a nodule which does selectively concentrate I-131 is less likely to represent carcinoma than a so-called "cold" nodule. The examination for substernal extension of an enlarged thyroid or for mediastinal ectopic thyroid tissue is facilitated by the use of this radioactive isotope.

Other techniques also are used in diagnosis of thyroid function. These include the determination of serum protein-bound I-131, as well as assay of urinary or salivary I-131 excretion.

Still other metabolic functions can be assayed by use of I-131 labeled compounds. In the past, many metabolic studies of the gastrointestinal tract have been encumbered by technical difficulties and time consuming laboratory determinations. Through the use of I-131 labeled triolein or oleic acid, absorption studies relating to gastrointestinal function can often be performed more readily and with greater accuracy than would otherwise be attainable.

I-131, in certain convenient chemical forms, is also of value as a tracer in isotope dilution techniques. These determinations resemble well-known dye dilution techniques, in that a foreign substance is added to the tissue space and is assumed to accumulate in that space, its concentration being inversely proportional to the volume of the fluid diluent. The main example of this technique is seen in the use of radio-active iodinated serum albumin (RISA) for measurement of plasma volume. Following intravascular injection of this material, sufficient time is allowed for mixing, and aliquots of plasma are examined after appropriate intervals, short enough to avoid significant escape of material from the vascular compartment. At the present time this is one of the most popular methods of performing plasma volume studies.

I-131 in the form of RISA has also been employed in tumor localization, notably with respect to neoplasms involving the central nervous system. Here use is made of the fact that alterations of the blood-brain barrier due to the presence of neoplasm will frequently permit selective localization of radioactive material at a tumor site. The penetrating gamma ray component of I-131 facilitates external counting following intravenous injection of radioactive material. Techniques utilizing short range beta counting are described in a subsequent section.

Studies of cardiac output and circulation time are also possible using I-131. However, the results of cardiac output studies at present are difficult to express in quantitative terms. Determination of flow rates for peripheral vascular circulation are quite useful in evaluating problems of venous stasis in the extremities. Further, the determination of the circulation in vascular pedicle grafts is feasible by measurement of locally injected I-131 clearance.

Although the diagnostic uses to which I-131 is applied illustrate well the variety and clinical usefulness of isotope detection techniques, brief mention should also be made of clinical uses for other less frequently employed radioactive elements, namely Cr-51 and Fe-59. The former radio-element has been employed to advantage in labeling of both red blood cells and plasma by virtue of its affinity for body protein. Existing techniques permit cytologic tagging of erythrocytes with Cr-51 and thus the determination of red cell mass in blood volume computations by isotope dilution. Erythrocyte survival too has been studied by this method. This method, when compared with the Ashby technique, gives a shorter apparent half life of the red cell but this may be due to a loss of Cr-51 from the erythrocyte even though it remains viable.

The clearance rate of Fe-59 from the plasma following intravenous injection is used in study of various disease states. Such clearance is accelerated in polycythemia, hemolytic anemia, pernicious anemia, leukemia, anemias associated with infection, malignancy, and iron deficiency. A decreased rate of clearance is seen in aplastic anemia. Other techniques evaluating ferrokinetics involve measurement of red blood cell uptake of radioactive iron as well as indirect measurements of tissue uptake in spleen, liver, and bone marrow.

Therapeutic Uses of I-131

In addition to its diagnostic tracer applications, radioiodine has found a prominent place in the therapeutic management of thyrotoxicosis. Most investigators feel that I-131 finds its most effective application in the treatment of classical Graves' disease where diffuse glandular hyperplasia permits relatively uniform uptake of the isotope throughout the gland. Recurrent disease following surgery, hyperthyroidism refractory to preoperative preparation, or medical contraindications to surgical thyroidectomy also are recognized as indications for therapy.

Where these indications are present, age is generally not regarded as a serious deterrent to I-131 therapy despite theoretical objections on the basis of possible carcinogenic effects from ionizing radiation. When other suitable treatment methods are available, most workers prefer to limit isotope therapy of this type to adults beyond the nominal reproductive age, usually 40 to 45 years. Others are liberalizing indications so that almost all adult thyrotoxic patients are considered as candidates for I-131 therapy.

Most physicians prefer surgical attack on nodular goiter, toxic or otherwise, both because these glands may harbor a neoplasm and by virtue of technical difficulties incident to the larger size of such glands and irregular distribution of active tissue therein. Since I-131 is taken up by the fetal thyroid after the first trimester and since the isotope is excreted in breast milk, pregnancy and lactation are regarded as contraindications to I-131 therapy. The value of such treatment in reversing ocular manifestations of Graves' disease has been recently questioned although results of treatment in malignant exophthalmos are at least as good as those reported with other methods.

Dosage determination in treatment of hyperthyroidism has been variously derived. In some instances sophisticated, complex formulae have been advocated based upon uptake of preceding I-131 tracer doses, estimated thyroid gland weight (by palpation) and estimated effective half life of I-131 in the body. The first of these, I-131 tracer uptake, can be determined with satisfactory accuracy, but its relationship to I-131 uptake in any succeeding dose is uncertain. Effective half life determinations are fraught with similar uncertainty. Estimations of thyroid weight by gland palpation have long been recognized as inaccurate even in hands of the most experienced clinical examiners. Further, these formulae, insofar as they attempt to predict tissue ionization from a treatment dose, rely on the assumption that distribution of I-131 is uniform throughout the gland. It is known that this does not obtain even in glands exhibiting the diffuse hyperplasia of classic Graves' disease. Accordingly, most therapists now prefer to derive dosage from simpler calculations, recognizing the inaccuracies present in any currently employed clinical dosage regimen. By any dosage schedule where one undertakes to treat toxic nodular goiter, I-131 dosage requirements may be considerably higher than they are in therapy of Graves' disease.

In general, one attempts to deliver an initial radiation dose to the thyroid sufficient to control the disease process in one treatment. However, divided dosage schedules have been advocated in the past. In any case it is probably unwise to retreat a patient before full effects of a preceding treatment have become manifest. The minimum time for such response is generally recognized as about two months.

In any discussion of radioiodine therapy, mention must be made of its potentialities and limitations in the treatment of thyroid carcinoma. It is agreed that, where possible, thyroid carcinomas are best treated by surgical extirpation. Where such ablation cannot be accomplished or where surgical removal is incomplete, I-131 therapy may be considered if tumor differentiation is sufficient to permit uptake of the isotope in therapeutically effective amounts. Anaplastic cervical lesions with poor uptake are best treated by external roentgen irradiation.

If peripheral metastases are to be considered for I-131 treatment, total ablation of normal cervical thyroid function must be accomplished by surgery, I-131 therapy, or both. Even after destruction of the thyroid only one in seven metastatic thyroid lesions will take up and retain sufficient radioactive material to permit effective therapy by internal irradiation. Methods have been advocated to stimulate uptake in metastatic lesions. These include a period of hypothyroidism after gland ablation, use of anti-thyroid drugs, and parenteral administration of thyroid stimulating hormone. Such methods will cause some metastatic lesions to concentrate iodine, evidently through direct tumor stimulation by pituitary thyrotrophic hormone. Although small areas of functioning metastases may thus be revealed for

diagnostic edification, especially after use of relatively large doses of thyrotrophic hormone followed by large tracers of I-131 (2—100 mc), the therapeutic potential of such grudging tumor uptake is in doubt. Further, evidence has been adduced to indicate that such excitation of tumor uptake may occasionally itself promote growth of the neoplasm and further cellular anaplasia.

Interest in I-131 therapy for intractable heart disease, notably angina pectoris and congestive failure, was stimulated by the work of Blumgart based on earlier studies of surgical thyroid removal or chemotherapeutic thyroid depression in these clinical states. I-131 induced myxedema is not advocated as a lifesaving measure but simply as a worthwhile mode of palliation in the management of these intractable situations. Such therapy is preferably applied to those patients in the group lying in the upper levels of the euthyroid range. Even there dosage must be elevated considerably above that employed in treatment of hyperthyroidism since the normal gland shows less avidity for the isotope than does its hyperfunctioning counterpart.

Medical Applications of P-32—Diagnostic Uses

Radioactive phosphorus P-32 is commonly produced by irradiation of S-32 with thermal neutrons in the pile yielding carrier-free radio-phosphorus, usually distributed as sodium phosphate. The isotope is a pure beta emitter (1.7 Mev max.) with a half life of 14.3 days. While its emission characteristics greatly simplify problems of protection, its detection for diagnostic purposes in tissue is complicated. The maximum range of the phosphorus beta particle in tissue is about 7 mm. and the average about 2 mm. External detection through secondary brehmsstrahlung is rather unsatisfactory both from the standpoint of efficiency and directional qualities. Generally, the detecting instrument must be applied close to the emitting P-32 source.

Radiophosphorus tends to be concentrated selectively in rapidly growing tissue, notably by the nucleoproteins of the cell. This fact is employed to advantage in localization of brain neoplasms at operation through probe counting. The work of Selverstone is outstanding in this regard. Following injection of P-32 intravenously by a number of hours, craniotomy is performed. At surgery localization of tumor tissue is accomplished by direct insertion of a specially designed probe counter into the exposed lesion. The short range of the P-32 beta and the selective uptake of the material by neoplasm facilitate accurate delineation of tumor position and extent of infiltration.

Preferential phosphorus uptake by tumor tissue has also been exploited in diagnosis of ocular neoplasms. Here short distances between the surface of the globe and its contained neoplasm permit use of a detecting device applied directly to the surface of the eye. Some investigators utilize differential counting techniques after many hours while others feel that a maximum differential ratio of counts between tumor and normal sclera is obtained in the first fifteen minutes after injection. The cause of such early concentration is not definitely explained but may arise from increased vascularity of the tumor or alteration in local vascular permeability.

Therapeutic Uses of P-32

From the therapeutic standpoint, P-32 has come to play an important role in the treatment of polycythemia vera. The isotope is usually given intravenously in dosage varying between 3 to 5 mc. depending to some extent on the height of the red count, platelet count, and the patient's weight. Response is not immediate so that often phlebotomy may be necessary to control acute symptoms. Desirability of the latter has been questioned by some since there is some evidence to suggest that decrease of blood volume may predispose to thrombosis, a complication already to be feared in polycythemia. The question of leukemogenesis with P-32 therapy has been repeatedly raised, but there seems to be no conclusive proof that such radiation materially increases the incidence of chronic leukemia. It is known that leukemia often follows polycythemia without prior treatment by ionizing radiation. Indeed, it has been recently noted that various other types of malignancy also exhibit higher incidences in polycythemic individuals, notably renal neoplasms. Most workers feel that the advantages offered by P-32 therapy in polycythemia more than offset the theoretical possibility of increased leukemia incidence.

Radiophosphorus has also been employed in treatment of chronic leukemia. Usually small doses of P-32 are given at one- to twelve-week intervals depending on the particular regimen as well as the clinical and hematologic response. Osgood,* using a continuous "titrated" dosage

schedule, feels that final mean survival time is materially lengthened by such treatment. Other investigators, using an intermittent type of P-32 dosage, report survival after istotope treatment in chronic leukemias to be about equal to that achieved by other conventional methods. In particular, it would appear that patients treated by spray x-ray therapy survive on the average as long as those treated with P-32.

Medical Applications of Co-60—Diagnostic Uses

Cobalt-60 is produced in the atomic reactor by exposure of stable cobalt to the neutron flux. Its half life is 5.3 years and it emits a beta particle as well as two gamma photons, the latter 1.17 and 1.33 Mev, respectively. The energetic character of these gamma rays facilitates quantitative measurement of radioactivity in biological material. Low intensity samples may be measured in a well counter, while larger, more active materials may be measured at a distance with a scintillation counter properly calibrated against a known standard preparation. A variety of forms and specific activities may be obtained depending on the use contemplated.

Diagnostically, Co-60 is employed as a tracer replacement for the one atom of stable cobalt normally present in the vitamin B-12 molecule. Following ingestion of tagged B-12, its absorption may be evaluated by determination of fecal Co-60, external counting of liver radioactivity, or urinary excretion of Co-60 after one or more "flushing" doses of non-radioactive vitamin B-12. Methods of measurement of blood and plasma Co-60 activity have also been devised. Patients with pernicious anemia, lacking intrinsic factor, fail to absorb ingested B-12 as well as do normals having an adequate supply of this factor. The tests described, then, serve to separate these two groups clinically. In actual practice, any test showing evidence of poor B-12 absorption is usually repeated after an interval with the addition of intrinsic factor, in this way to separate vitamin B-12 malabsorption of pernicious anemia from that due to certain other intestinal malabsorption disorders such as sprue or pancreatic disease.

Therapeutic Uses of Co-60

Although a discussion in detail of therapeutic uses of Co-60 would carry us beyond the proper confines of this summary, brief mention should be made of the uses to which Co-60 may be put in teletherapy devices or in intracavitary or interstitial irradiation. Co-60 teletherapy is essentially another form of supervoltage radiation corresponding in physical characteristics to X-rays generated at potentials in the range of 2 to 3 million volts. The advantages of such supervoltage radiation over X-rays generated at potentials in the orthovoltage range (200 kv) include increased skin tolerance, decreased side scatter, higher depth dosage, and decreased bone absorption of the radiant energy.

As a radiation source for interstitial, intracavitary or external mold techniques, Co-60 may be compared favorably with radium. Dosage to tissues using various arrangements of radium sources has been accurately determined from the theoretical standpoint and clinically tested over many years. When allowance is made for the higher radiation output of Co-60 per millicurie as compared to radium, it appears that existing dosage data for the latter may be readily converted for use with Co-60 sources, there being reasonable confidence that the biological effects of the two materials are similar.

Medical Applications of Au-198

Radioactive gold, like cobalt, is produced in the pile by neutron irradiation of the stable parent substance, in this case Au-197. The radioactive daughter product, Au-198, emits principally a powerful beta particle (E-max. 0.97 Mev) and a gamma photon of 0.411 Mev. Its half life is 2.7 days. Most of the therapeutically useful effect is derived from the beta emission with about 90 per cent of ionization therefrom localized to the first millimeter of soft tissue surrounding the active source. Perhaps the isotope's most widely known application relates to the use of colloidal, elemental Au-198 as an intravavitary source of beta irradiation to serosal surfaces, either pleural or peritoneal. The effects of such radiation may produce worthwhile palliation of effusions due to serosal spread of visceral malignancy by reducing the rate of fluid accumulation and hence the need for repeated paracentesis. Its use is not without some hazard inasmuch as the gamma component of radioactive decay, although of little therapeutic value, may irradiate significantly nearby hospital personnel and other patients. It thus may be a source of danger unless safeguards

(Continued on Page 1646)

Uses of Radioisotopes in Industry

Richard Abowd, Jr.
Ferndale, Michigan

MANY interesting jobs performed by radioisotopes in the industrial world have their use tied securely to economic considerations. Our purpose here is to discuss some interesting industrial applications, without the burden of economic justification. Because radioisotopes by their nature produce radiation energy, it is possible to classify all applications in terms of what happens to this energy.

In the first classification, this energy is converted into another form which is used to accomplish the desired effect. The second class includes those applications in which the energy is absorbed or shielded to varying degrees and this is the desired effect. The third class, which includes the most varied applications, employs the radioactive specie for the purpose of tracing its path through some process. The objective here is information.

Applications Using Energy Conversion

Industrial applications depend for their success on the ability of the radiation energy to influence physical, chemical and biological processes. One example is the cold sterilization of foods. In this application, high intensity radiation energy, from either Co-60 or fission by-product sources, kill those micro-organisms in food which cause spoilage. This effect is caused by strong ionization produced by the penetrating radiation energy. Exemplifying this successful application is the progress made in preventing potato sprouting and increasing their storage life without producing undesirable side effects of taste, color, or texture changes. Radiation levels for this effort vary, but one of the first research units at the University of Michigan employs a kilocurie source of Co-60.

Luminescence can be induced in phosphors by the use of suitable beta emitting isotopes. This phenomenon is probably best known from the application to "glow in the dark" clock dials. Originally the glow process was sustained by using naturally radioactive radium isotopes. But man-made radioisotopes are more plentiful than radium and allow a longer useful life for the phosphor. Radiation from the radioisotope is converted to visible light energy by their interaction with the phosphor material. This application has been extended from its original limited use on clock and watch dials to include lettering on signs, coatings for fire alarm buttons located in dark places, door handles, and a variety of other objects which require easy recognition under adverse lighting conditions.

Improved polymer products have been developed using high energy radiation to induce cross-linking of the molecules. Particular success is evidenced by superior low temperature properties of plastic materials given the radiation treatment. The strong ionizing force of radiation energy from selected isotope sources can cleave the molecular links and induce preferred recombinations. In chemical research activities, the use of ionizing radiation to initiate and sustain chemical reaction is assuming more serious aspects. At first the phenomenon was regarded as novel and interesting, but not of commercial importance. The increasing sales of particle accelerators and kilocurie sources to industrial research units during the past few years will bear witness to the future importance of this process in chemical manufacturing.

Important progress in rubber research, processes which are akin to those in polymer chemistry, also present favorable evidence of the important role ionizing radiation will play in this giant American industry. But, as in other chemical applications, the use of radioisotopes to provide this radiation energy, is challenged by development of improved machines which also produce ionizing radiation. This competitive race highlights the advantages of radiation chemistry techniques and will serve to increase its use as a commercial process.

Industrial uses of radioisotopes in past years has been spearheaded by applications in the petroleum industry. From uses in well logging, refinery processes and product development re-

Mr. Abowd is Project Engineer in the Wear and Lubrication Group, Chemical Research Division, Research and Development Department, Ethyl Corporation, Ferndale, Michigan.

search radiation energy is proving its commercial worth.

To determine the presence of certain elements in oil well bore-holes, the geologist can use a small neutron source, followed by a suitable detector which is guided down the drilled hole. The neutron source activates the mineral deposits as it passes and the small detector then sends signals up the cable and into spectrometer equipment. Analysis of the detected signal provides information on the structure and mineral type of the substrate along the bore-hole wall.

Applications Using Energy Absorption

Useful instruments based upon the ability of matter to absorb radiation provide improved quality control of metal castings, rolled metal sheet and plastic film. Liquid level indicators using radioisotopes are simple and efficient devices which also depend upon the radiation absorption characteristics of materials. In the field of industrial radiography, radioisotopes can provide the radiation energy in those cases where X-ray machines are not suitable.

Beta gaging, the use of beta radiation to determine and control the thickness of thinly rolled materials, is an application which finds favor in a variety of industrial operations. A beta-ray source, usually strontium-90, is supported on one side of the moving sheet material. A sensitive detector is located on the opposite side of the material. As the thickness of the material varies, the observed counting rate will vary inversely. The thicker the sheet material becomes, the less the count rate. It is a relatively simple procedure to gang the beta-gage with the device controlling material thickness and derive an automatic thickness control. Because the beta rays are very sensitive to shielding effects of the material, quality control on thickness variation is improved to the order of millionths of an inch. A modified application is used to control the tobacco density in cigarettes.

Related to the beta gage is another device, similar in operation but used to indicate liquid level on large storage tanks. It consists of a radiation source, usually a colimated gamma ray emitter, located on one side of the tank, and a detector on the opposite outside of the tank. As the liquid level rises in the tank, it reaches the height where the gage is located. At this height, the liquid in the tank acts as a shield for the gamma rays and the count at the detector decreases. This decrease in signal from the detector can be used electronically to automatically close inlet valves. The liquid level gage can be used to keep process tanks at a given liquid level during operation. The advantages of this type of gage rests primarily on the fact that it can permit level changes simply by moving the source and detector up or down on the tank. Hence it can be used to determine where the top of the liquid is by searching up and down the side of a tank. In multi-phase pipe lines, this gage can be used to indicate when the gas-liquid interface passes a given point.

Applications Using Energy as Tracers

One of the most versatile applications for radioisotopes is in tracer studies. Here the immediate emphasis is on information. Radiation from the isotope is observed for location and quantity. Hence the radiation becomes a convenient tool for probing purposes in such broad fields as basic research, product development, and process control. As a research tool, the radioisotopes are making their most important contribution in the advancement of scientific work. To name a few, isotopes have been beneficially used to study the solid diffusion of one metal into another at the surface of contact, to determine the direction and quantity of fluid flowing in a processing stream, to analyze a specific compound for the presence of trace impurities, to determine the rate of wear of piston rings while the engine is operating, and to determine the loss or degradation of a product while it is in storage.

Cursory observation of the many applications of radioisotopes as trace materials may cause one to wonder why their use has been preferred to other time-tested methods. The answer is, in general, an easy one. It is related directly to the higher order of detection sensitivity which can be utilized. For example, in piston ring wear application, the wear rate which can be conveniently observed is the order of a few micro-grams of material per hour. Contrast this with the conventional method in which the weight loss must be the order of milligrams to provide the same accuracy. In other words, the radioactive method is 1,000 times more sensitive. Of course, all applications do not have this same dramatic advantage, but the benefits are sufficiently attractive

(Continued on Page 1649)

A Report on Federal Emergency Hospitals and Medical Supplies

George Moore, M.D.
Battle Creek, Michigan

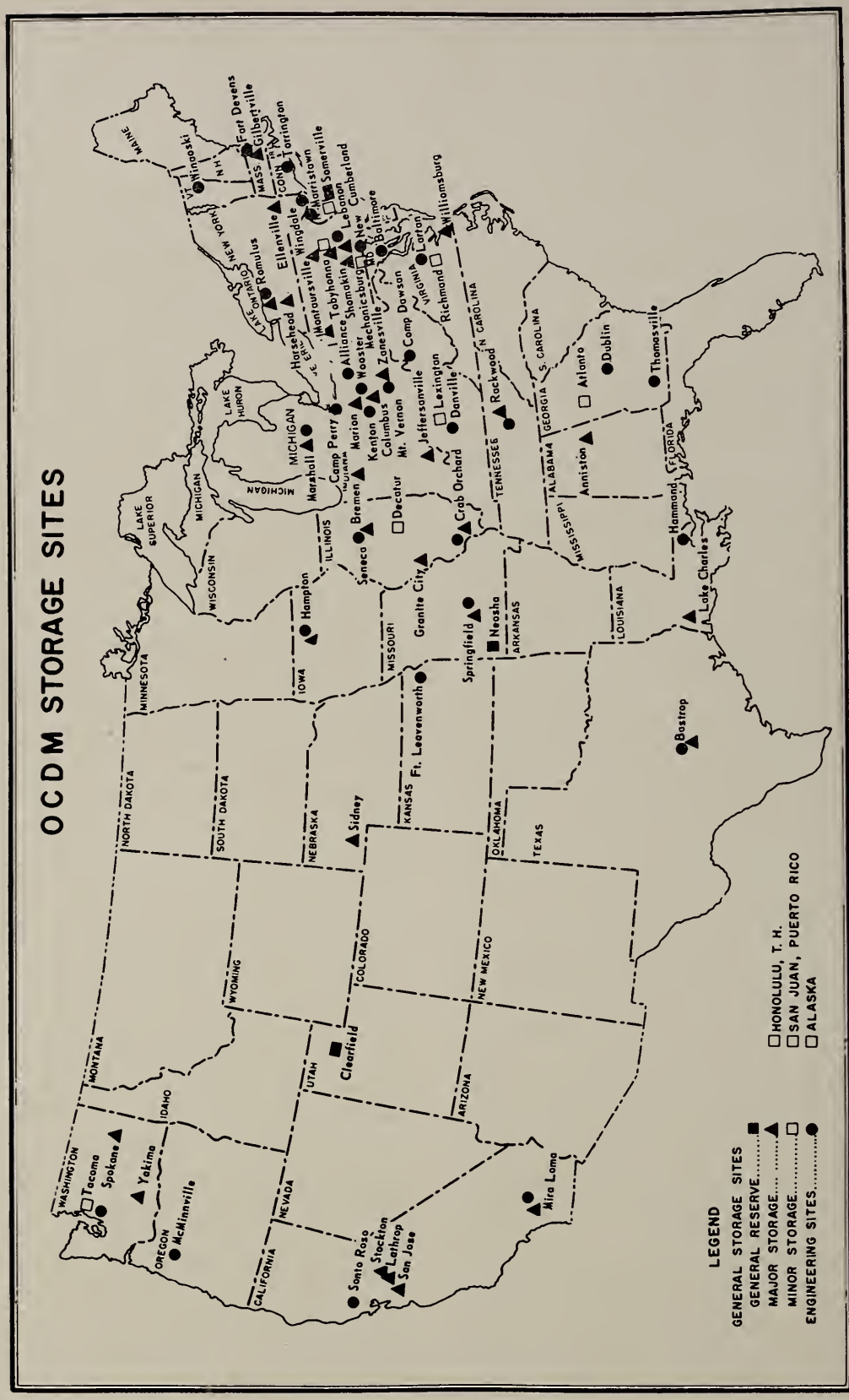
In all of the United States wars from the Revolution through World War II a total of 1,106,552 soldiers were injured. Federal planning estimated 5,000,000 surviving casualties from a single nuclear attack on this nation a few years ago, and present estimates exceed this figure many times.

The Casualty Care Program was based originally on the nominal atomic bomb of the pre-thermonuclear era. Emphasis was centered on life-saving techniques applied to casualties injured primarily by blast and heat. First Aid Stations were to be set up as close as possible to the devastated areas and casualties would be transported to the nearest existing hospital or to an improvised hospital moved to and set up in a preselected building on the damage or fallout periphery. The Office of Civil and Defense Mobilization (OCDM) contributed 50 per cent of the cost of the first aid stations under the Federal Contributions Program. The 200-bed Civil Defense Emergency Hospital (CDEH) had as its prototype the 60-bed Mobile Army Surgical Hospital unit adapted to civilian needs. This hospital unit was initially offered to the states on a 50 per cent matching funds basis, but so few were absorbed that complete units were made available on loan for training purposes. The present Civil Defense Emergency Hospital, the result of continuous improvement since 1952, consists of 367 cases, weighs 24,000 pounds and can be transported in one moving van. The unit is packed for long-term storage and offers all items essential to a 200-bed general hospital. Generators, gasoline lanterns, water pumps, and battery-operated surgical lamps lend self-sufficiency to the hospital in case of normal power failure. Each unit costs OCDM over $26,000.

The improvised hospital under the early atomic concept was to be stored in State or Federal warehouses for issue as needed. The advent of the larger thermonuclear weapons with their greatly increased areas of destruction, with large areas of fallout, and with widespread interruptions of transportation and communication indicated the need for a new approach to the problem of making the new Civil Defense Emergency Hospitals available when and where they would be needed. The answer to the problem, of course, is prepositioning on or near the site where the facility is to be used, under agreement with the States and cities through the OCDM regional office for proper storage and maintenance.

The great majority of existing hospital beds are normally located in designated target areas, thus the Civil Defense Emergency Hospitals which are strategically located in the support areas, take on a much more permanent character. Utilization is planned for an indefinite period. Eventual care given in these hospitals must be broad and definitive for the long-range problems of the survivors and for modern weapons effects. Thermonuclear bombs detonated on or near the surface of the ground generate radioactive fallout particles which may be carried tremendous distances by high altitude winds. In a holocaust of nuclear war, intense ionizing radiations emitted both from the nuclear weapon burst, as well as from drifting fallout, will make immediate rescue operations impractical. Until radiation intensities are known and until radiation decays or drops to a "safe reading," the surviving population must remain under cover, even if injured. Emphasis is being placed more and more on the need for a maximum capability of self-help. OCDM urges that in the best interest of survival, the public will provide family fallout shelters and store provisions and water for two weeks. At least one member of each family should be trained in first aid and home nursing in order to offer life-saving measures to family and neighbors. Organized medical care may not be available in contaminated areas for hours and even days. It is considered that in highly radioactive areas close to the bomb bursts, casualties who have not taken shelter underground will be lost. In view of these new planning concepts, the

Dr. Moore is Medical Officer, Region 4, Office of Civil and Defense Mobilization.


OCDM STORAGE SITES
LEGEND
GENERAL STORAGE SITES
GENERAL RESERVE
MAJOR STORAGE
MINOR STORAGE
ENGINEERING SITES
HONOLULU, T. H.
SAN JUAN, PUERTO RICO
ALASKA
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
COLORADO
UTAH
ARIZONA
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
N. CAROLINA
VIRGINIA
W. VIRGINIA
PENNSYLVANIA
NEW YORK
MAINE
VT.
N.H.
MASS.
CONN.
N.J.
MD.
DEL.
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
LAKE ONTARIO
Tacoma
Spokane
Yakima
McMinnville
Santa Rosa
Stockton
Lathrop
San Jose
Mira Loma
Clearfield
Sidney
Hampton
Granite City
Springfield
Neosho
Ft. Leavenworth
Bastrop
Lake Charles
Hammond
Anniston
Atlanta
Dublin
Thomasville
Rockwood
Crab Orchard
Danville
Lexington
Jeffersonville
Mt. Vernon
Columbus
Kenton
Marion
Wooster
Alliance
Camp Perry
Marshall
Bremen
Seneca
Decatur
Zanesville
Mechanicsburg
Shamokin
Tobyhanna
Harrisburg
Somerville
Cumberland
Lebanon
Baltimore
Carlton
Richmond
Williamsburg
Harrisburg
Montoursville
Harrisburg
Wingdale
Ellenville
Romulus
Winooski
Gilbertville
Fort Devens
Torrington

CDEH Program is undergoing a change in emphasis from casualty care to medical care of the surviving population. The future CDEH will contain additional items for long-term medical care, specialization equipment and outpatient clinic supplies.

To provide for the care of casualties, OCDM is planning a new type of facility, the Emergency Treatment Station, as a supplement to the former first aid station. The proposed unit is basically an emergency hospital stripped of non-essentials for its newer role of providing emergency life-saving measures and holding casualties for transfer to definitive care installations.

Expansion Units to convert a treatment station into a CDEH, Specialty Units and four types of Replenishment Units are considered items of our Federal stockpile in the future.

As of May 8, 1959, 1,383 CDEH had been packaged and delivered to storage sites by OCDM. About one-third of these are in OCDM warehouses located at strategic points throughout the country. Over two-thirds, or 989 units, have been prepositioned in the States. Agreements for 45 additional units were also being processed in Battle Creek, Michigan, on May 8. Pennsylvania, with 156 CDEH, has the largest number of prepositioned hospitals. Michigan has placed fifty-seven units, of which eighteen are located in the Detroit support area. The total number of hospitals purchased by OCDM to date is 1,932.

During Operation Alert 1958, when a great many existing hospital facilities in target cities were theoretically destroyed, prepositioned hospitals represented the bastion of available medical care facilities. In Region 4, which comprises the States of Michigan, Indiana, Illinois, Wisconsin, and Missouri, 276,000 existing hospital beds were listed before D-Day of 1958. Blast and heat from nuclear weapons destroyed 115,000 beds in a few seconds. An additional 90,000 beds were undamaged physically but could not be used immediately due to hazardous radiation. Thus, at 24 hours post-attack, only 70,000 existing hospital beds could have been available for over 3,000,000 seriously injured. At thirty days post-attack, when most radiation had decayed, the number of usable existing hospital beds reached 162,000.

At the time of simulated attack in 1958, Region 4 had 145 200-bed CDEH placed in support areas representing a total of 29,000 beds. Blast and thermal effects destroyed only four CDEH—attesting to the value of dispersal in non-target areas. Intense fallout prevented operational use of some prepositioned units until fourteen days after attack, but the addition of Federally stockpiled CDEH to the usable prepositioned units had given the Region an additional 68,000 beds at this critical time. At ninety days post-attack, when all surviving hospital beds and CDEH could be used and their facilities expanded, the total number of hospital beds of all types was 558,000. The number of injured requiring hospitalization at ninety days was estimated at one million and a half. The importance of the prepositioned hospital program, now and in the future, is obvious.

Since the prepositioned hospital is packed for long-term storage and must remain stored in its original packing, 100 CDEH are allocated from the current OCDM stockpile for the purpose of training and familiarization of professional medical and auxiliary personnel.—Sixty-seven units are now on loan to the States, of which 17 are in use within OCDM Region 4. Over 9,000 medical personnel have been trained in Region 4, and 278,000 viewers have seen the hospitals displayed. OCDM contemplates a smaller, more compact unit for training which will be easier to transport and assemble. Present training hospitals have generally not been used in sparsely populated areas.

The CDEH Program has given rise to several misunderstandings which will now be considered.

Use of CDEH in Major Disasters.—Article VIII of the CDEH storage agreement is specific as to the conditions of use. A hospital unit may be made available to a State or political subdivision in a *major* disaster as defined in the Federal Disaster Act of 1950 (PL 875, 81st Congress), under terms and conditions approved by the OCDM Regional Director.

A vital factor usually overlooked or ignored is that all required supplies which are available to the State through its own resources or from the American National Red Cross, must first be exhausted.

The emergency hospitals, moreover, are planned as general hospital units. They are austere in equipment and supply, and persons needing hospitalization in even a major natural disaster would get better care by evacuation to established hospitals nearby. The time required to unpack, assemble and staff a CDEH is another point. We

consider that indiscriminate use of supplies from prepositioned hospitals is an unwise reduction of the national emergency stockpile.

Replacement of Perishable Items in CDEH.—Included in this category are: antibiotics, insulin, blood volume expanders, blood typing sera and radiographic paper.

OCDM has always encouraged States to make local arrangements for rotation of antibiotics where a satisfactory procedure can be worked out. Shelf-life periods for antibiotics vary in range from two to five years. Most of these items have been laboratory re-tested by the National Institutes of Health and the Food and Drug Administration after expiration date and found to be fully potent and safe. OCDM plans to replace these items every five years on specific request by a State where rotation by local hospital custodians has not been feasible. Approximately $2,000,000 is being spent this year for this program and the first replacements will be made in 1960.

Insulin, when stored under refrigeration, is quite stable according to reports from the Food and Drug Administration and this item will be replaced every five years. In the same manner, blood grouping sera will be replaced.

The manufacturer will not guarantee radiographic paper for longer than nine months. However, we have found that its useful shelf life can be more than tripled if kept in refrigerated storage. Current research indicates that radiographic paper with a probable ten-year shelf life is a possibility.

Acquisition of Narcotics During a Civil Defense Emergency.—Because of Bureau of Narcotics regulations, narcotics have never been approved for procurement under the Federal Contributions Program nor have they been procured for the medical stockpile. CDEH, of course, do not contain narcotics.

Federal reserves of narcotics now held by General Services Administration and earmarked for Civil Defense emergencies total approximately 40,000,000 doses. Further studies are being made concerning narcotics in the emergency hospital listing.

Unpacking the Generator.—The generator is packed for long-term storage and should not be unpacked unless the Humidity Indicator Card indicates an unsafe storage condition. Several instances have occurred where local hospital custodians have unpacked the generator for no other reason than that they were convinced it would not work. Under these conditions, the State is required to pay for the cost of repackaging, approximately $100.

The Civil Defense Medical Supplies Program is divided into two categories: (1) the Federal Contributions Program; (2) the Federal Stockpile Program.

The Federal Contributions Program is based on the principle that local communities will obtain medical supplies necessary for the first two weeks or more after a national emergency to start treatment of casualties. Supplies under this program are matched dollar for dollar with Federal funds, but title to the supplies is vested in the participating States. The total overall value of the medical Contributions Program is estimated at $87,000,000.

The Federal Stockpile Program is concerned chiefly with the procurement and stockpiling of medical and related supplies to serve as back-up to those supplies now being stored in the local communities. The Federal Stockpile Program has been geared to the care of over 5,000,000 surviving casualties for a period of three weeks. When stockpiling operations are resumed, the new goals will be many times this figure.

Through the Fiscal Year 1957, approximately $219,000,000 was expended for medical supplies which included all essential items necessary for care of casualties. These supplies are under Federal control, and at present close to $200,000,000 worth of medical items have been delivered to 43 OCDM depots strategically located throughout the United States and to other locations such as the prepositioning sites in local communities. No new procurement of strictly medical items was conducted from 1958 to 1959 since no money was appropriated for the purpose. In 1960, stockpile operations will probably be limited to reworking the outdated plasma in stockpile.

Of the items procured so far that could be classified as deteriorating, the antibiotics pose the principal problem. There are some several million dollars' worth of antibiotics in stockpile at this time. Present dating periods, however, are such that most are usable for several years hence. Each year more data is gathered on the stability of these antibiotics and periodically their dates have been extended. A good example of this is Chloramphen-



ONE OF THE WARDS IN THE 200-BED CDEH

icol, on which the dating has been periodically increased until it is now five years. OCDM is exhausting all means of rotating its present stockpile of antibiotics with existing Federal users and we have been successful in securing several rotation contracts with manufacturers in non-target areas. Of the antibiotics now in stockpile, about 25 per cent are presently covered by rotation contracts. In addition, OCDM now has contracts with manufacturers for smallpox vaccine, tetanus antitoxin and many other biologicals, under which such manufacturers store the material in bulk and rotate the stock, if possible.

The Office of Civil and Defense Mobilization has been very fortunate in securing the services of the Military Medical Supply Agency for the procurement of all its medical items. This Agency has done an excellent job in making civil defense appropriations go as far as possible; in fact, much further than expected. This, of course, is due to the fact that OCDM procurement requirements have been pooled with the Armed Services requirements, and the increased quantities have resulted in reduction of prices. In the Fiscal Years 1952 and 1953, close to $12,000,000 was saved on estimated prices. These savings were turned into additional procurement of needed items for the stockpile. In the 1953 procurement program, OCDM was able to start 100 Emergency Hospitals with the savings effected. In the Fiscal Years 1954 and 1955, there were additional savings of several millions of dollars to allow the procurement of 100 Emergency Hospitals not originally planned for, over half a million units of dextran, several million extra litres of intravenous solutions, several thousand radiological instruments, and additional vaccines and antitoxins. In 1956, over $3,000,000 was saved to allow for the procurement of 100 additional hospitals.

Warehouses are of three types: small capacity, placed on a calculated risk basis in or near principal cities, larger ones located farther out from

REPRESENTATIVE HEALTH SUPPLIES AND EQUIPMENT PROCURED FOR THE OFFICE OF CIVIL AND DEFENSE MEDICAL RESERVES PROGRAM THROUGH FISCAL YEAR 1957

	Quantities
A. Basic back-up medical and surgical supplies (drugs, dressings, surgical instruments) to serve as back-up for first aid stations, emergency and existing hospitals, based on casualties that can be cared for over a three-week period. Examples of the major items in this category are as follows:	
1. Penicillin in Oil, 400,000 units per cc., 1 cc. doses	17,952,050
2. Streptomycin, 1 Gm. (Bottles)	336,800
3. Aureomycin Capsules, 250 mg., 100s (Bottles)	168,415
4. Chloramphenicol Capsules, 250 mg., 100s (Bottles)	168,403
5. Terramycin Capsules and Tablets, 250 mg., 100s (Bottles)	168,457
6. Penicillin G, Crystalline, 1,000,000 units (Bottles)	717,150
7. Aureomycin Hydrochloride, Intravenous (Bottles) 0.1 Gm.	1,771,980
8. Terramycin Hydrochloride, Intravenous (Bottles) 0.25 Gm.	860,400
9. Special Burn Dressings	10,327,500
10. Sulfadiazine Tablets, 0.5 Gm. (7½ gr.), 1,000s (Bottles)	404,256
11. Litters (Straight Pole)	318,752
12. Paper Blankets	1,597,711
13. Cots	425,000
14. Blankets, Wool	1,300,696
15. Hemostatic Forceps	1,275,120
16. Splints	2,071,220
B. Hospitals, 200-Bed Emergency (293 items per unit)	1,932
C. Blood and Shock Therapy Program Equipment	
1. Blood Collecting Sets (includes all necessary equipment)	3,187,674
2. Container, Blood Shipping	157,500
3. Plasma	1,307,808
4. Serum, Albumin, Human	294,166
5. Dextran Injection	3,475,000
6. P.V.P. (Polyvinylpyrrolidone Injection)	1,200,000
7. Intravenous Solutions (Litres)	19,618,974
D. Radiological Equipment	
1. Radiological Survey Meters	272,533
2. Radiological Dosimeters (Self-reading and non-self-reading)	426,500
3. Radiological Dosimeter Charges	38,937
4. Radiological Dosimeter Readers	160
E. Biological and Chemical Warfare Defense Supplies	
1. Smallpox Vaccine (doses)	40,000,000
2. Tetanus Antitoxin (Therapeutic doses)	250,000
3. Gas Gangrene Antitoxin (Therapeutic doses)	62,500
4. Diphtheria Antitoxin (Therapeutic doses)	200,000
5. Yellow Fever Vaccine (doses)	4,000,000
6. Atropine (2 mg. doses)	5,512,000
7. Gas Masks (Organizational)	42,000
8. Detection Kits	5,000
F. Sanitation Supplies	
1. Sprayers and Dusters	14,000
2. Chlorine Comparators	1,400
3. Food Testing and Water Testing Kits	1,653
4. Water Purification Tablets, 50s	1,001,280



AN OZARK CAVE IS USED FOR STOCKPILING OCDM SUPPLIES

likely target areas, and depot-type warehouses located at still greater distances from probable targets. A former limestone mine at Neosho, Missouri, for instance, has 2,500 tons of supplies stored safely underground. Included are 200 Emergency Hospitals.

Civil Defense programs are subjected to continuous review and evaluation in relation not only to changing weapons effects, but also to reseach and development that might in any way improve capabilities. Furthermore, research and development is encouraged to fill gaps in our knowledge as divulged by continuous study. Particular emphasis is placed upon radiobiology. Other areas of interest include medical care and treatment, preventive medicine and public health, medical and health personnel education and utilization and nutrition. The OCDM contract with the American Medical Association, signed on July 26, 1957, is a most important activity in this respect. The scope of this study is to develop and recommend the planning, training, and operational organization needed as a basis for a national emergency medical care plan.

Federal support for the Nation's health and medical care program has been assigned to the Public Health Service. If funds are appropriated for 1960, a new era of implementation for health services in civil defense will be inaugurated.

Proper preparation is our greatest deterrent against an attack. However, if we are attacked, total mobilization of our personnel, resources, facilities, and equipment is essential to national survival. Life as we know it today may not return again for a considerable period of time. But the better prepared we are, the better will be the assurance that life in the true American way will return in a reasonable period. In such an emergency, the wants and desires of the few must give way to the good of the many, and all efforts must be pointed toward one objective—national survival.

SOME APPLICATIONS OF RADIOISOTOPES IN CLINICAL MEDICINE

(Continued from Page 1632)

are employed to produce attenuation of the radiation through use of proper shielding and interposition of safe distances between the patient undergoing treatment and the other hospital inhabitants.

Other uses to which colloidal Au-198 has been put can be exemplified in the treatment of certain forms of prostatic carcinoma. Patients in good general condition, having locally inoperable carcinoma of the prostate without evidence of distant metastases or elevation of phosphatase are candidates for such therapy. The procedure entails injection of Au-198 directly into tumor substance and prostatic tissue in adjacent fascial compartments. Recently it has been the practice of Flocks and his coworkers to remove any large gland masses before instillation of the radioactive material into the prostatic bed. Grossly involved lymph nodes, too, are better removed, this followed by injection of Au-198 into the areolar tissue of the dissection area. The Iowa group is enthusiastic over results of such treatment. They feel that five-year survival rates in this group of carcinoma patients can be materially increased and that untoward local radiation sequellae can be minimized by proper injection techniques.

Summary

In the foregoing paragraphs we have attempted to illustrate a number of the more important applications of radioisotopes to the field of medicine. Many other specific uses exist, and it is to be expected that still other applications of these materials will emerge from future investigative work, both in the clinic and the experimental laboratory.

The Civil Defense Role of the Hospital

Ronald Yaw, F.A.C.H.A.
Grand Rapids, Michigan

FOR purposes of this paper, a hospital will be considered a social entity where dietitians, maids, physicians, trustees, nurses, electricians, plus some thirty or forty other vocations, professions and trades all contribute to the recovery of sick and injured people.

It is considered desirable to thus define a hospital because of the probably natural tendency of groups within the hospital, stimulated by organizations outside the hospital, to set up plans which involve the entire hospital.

Probably the greatest single impetus to the development of disaster planning in hospitals has been the action of the Joint Commission on the Accreditation of Hospitals in making such plans mandatory. Obviously this has not resulted in ideal plans in every hospital. However, it has resulted in some planning in all accredited hospitals. The American Hospital Association has also shown strong leadership in the field of disaster planning. Over 100 articles have appeared in major hospital journals in the past year. Unfortunately, almost without exception, these are case reports where a hospital did have a plan and handled a disaster fairly well. Of real service would be an objective report of a hospital flooded with casualties where no advance planning had been done.

Actually the role of a hospital in Civil Defense has five separate aspects: (1) internal problems: (2) medical community problems; (3) OCDM official problems; (4) relocation problems; (5) constant revision and review problems.

The principal internal problems are those of attitudes, people and things. The attitude problem is one of creating in ourselves the firm conviction that disaster preparedness is a normal part of our community responsibility, just as normal as a preoperative urinalysis or sterilizing instruments. Unless and until this attitude is created, at least among a cadre of key people, the other problems are simply overwhelming.

Perhaps a good place to start in the "people" department is with an inventory. The problem here is more one of utilization than procurement. All segments of the hospital need to be instructed and assigned. For example, there are, in many hospitals, three to four or more highly motivated, intelligent members of Women's Auxiliaries for every patient in the hospital. Latent abilities must be searched out and made ready for use. Authority and normal lines of authority need to be reviewed. In most instances the channels of authority that work in every day usage will best serve in a disaster. Superimposed paper hierarchies are dangerous. Delegation of authority should be clear. Predelegation af authority is entirely possible and desirable. Physicians, who have been oriented to the problem, can review standard medical practices and decide in advance what decisions can be delegated to nurses, technicians and others. Physicians need to study and predelegate authority to each other in such areas as treatment simplification, moving and discharge of patients.

While medical decisions should be made by physicians, overall operating decisions should be made by a group representative of all sections of the hospital. Personnel bottlenecks in such areas as blood typing must be identified and solved. Professional personnel should be allotted by time as well as by position, many being needed in reserve status. The final internal problem of "things" is a matter of selective stock piling. On an April day last year an eighty-five bed Indiana Hospital with 86 patients found itself one Saturday afternoon with nearly 500 violently nauseated teen age girls being brought to the hospital by ambulance, truck and bus. One of the stockpiled disaster items was a quantity of large paper sacks for patients clothing. This homely, inexpensive item was a large factor in handling a real problem. X-Ray films, analgesics, burn dressings, et cetera, can easily be stockpiled by simply carrying an extra supply in normal inventory. The amount of stockpiling should be governed, in part, by the availability of supplies through other sources.

Mr. Yaw is Director, Blodgett Memorial Hospital, Grand Rapids, Michigan, and a Member of the Committee on National Defense, MSMS.

There are two other noteworthy aspects of the supply problem. Hospitals tend to become quite self-reliant in the matter of supply due to the fact that suppliers and vendors just aren't around nights and Sundays. It is surprising to find the variety and amount of usable items that have been stored away by nonmedical elements of Civil Defense. The other aspect is the problem of basic human kindness in an emergency situation. Trucks of unrequested food and supplies will arrive. The people to unload them and the very space the trucks take up may be sorely needed for more immediate problems.

The use of ordinary canvas litters for the handling, sorting and treatment of casualties is desirable. The hospital should have immediate access to a large number or else own and store its own supply.

The second major aspect of the hospital's role in Civil Defense is the function of being a part of what might be termed the medical community. No decisions about anything should be made without a full realization of and allowance for the fact that other equally interested groups have an entirely legitimate and laudable interest in disaster planning. Physicians and their organizations carry added heavy responsibilities for non-hospital medical problems. Likewise nursing and other professional groups have plans of their own. A hospital plan should be prepared after a complete understanding of what other groups have done or are doing. The duty of the hospital in these situations is so to conduct itself that it becomes a part of the solution—not just another part of the problem. While the hospital, as a large reservoir of trained people, can and should be cooperative in helping meet the total need, it should not allow itself to be stripped in any one category. One hospital found that every person in its Engineering Department had been given assignments that took them out of the hospital in a disaster.

The third major aspect is liaison and full cooperation with official OCDM bodies. Functions that are well beyond either the means or the control of the hospital must be known and used. The entire fields of communication, transportation, supply, external traffic control, evacuation and relocation are areas in which the hospital has little competence and is almost entirely dependent on others. This is not to imply a "Let George do it" attitude in any of these areas. The hospital must be willing to go all the way in learning about these needs and how to meet them, yet it must not duplicate existing scheduled services. While a hospital cannot fairly expect all civil authorities to neglect other functions, it should clearly make its vital needs known. On the average about three-fifths of the patients in a general hospital, faced with a disaster, can safely be discharged to their homes. This means transportation, transportation means adequate traffic control, and traffic control begins and ends with civil authorities. Traffic control that does not start blocks away from the hospital in all directions is not traffic control, but just a lot of stalled vehicles.

One thing a hospital can and should do is to let its community know about its general plan for disasters. A hospital is less subject to some medical customs than individual physicians. The physician who puts up a sign in his waiting room "I donate six hours a month of my working time to Civil Defense" would get a few sidelong glances in many circles. However, a hospital can and should let its community know that a tiny part of its bills to patients is spent in being prepared against disaster. In fact it has an obligation to reassure the public in this matter. Much of the uncertainty and fatalism in the public mind is due to lack of knowledge as to what has been done. The exposure to knowledge has been great; the understanding gained, small. Hospitals can help official groups in this area by a calm acceptance of responsibility.

The fourth aspect of the hospitals role in Civil Defense is a chilling one. That of removal and relocation if the existing physical plant becomes unusable for any reason. It is in this area that hospitals have done the least. This is possibly due in part to the I-I ratio (Ignorance equals Inertia). Hospitals in general have little knowledge of the prepositioned hospital program. They feel no responsibility for it since no responsibility has been placed on them. The concept of moving patients and personnel, of picking up the pieces and improvising a new hospital unit is totally foreign to many hospital people. The "Training Hospital" program might offer some relief if offered as a hospital training program and not just a public display to impress the taxpayers. More liaison, exchange visits, mutual planning between base site personnel and alternate site personnel is needed. Hospitals through the decades and all over the country have done almost unbelievably good jobs of handling large disasters. Probably

this is due to their daily handling of small disasters and the discipline acquired in the doing. Picking up and moving presents a new, bewildering problem.

The fifth aspect of the hospitals role in Civil Defense is the need for review, practice and revision. A plan that is not revised at regular intervals is of limited value. A plan that has never been tested is of almost no value. With the high attrition rate prevalent among hospital employees, a continuing duty assignment and orientation program is a necessity. While the "all out" spectacular test exercise is worthwhile and dramatic, smaller section tests are more consistent with the normal functioning of a hospital and are highly effective. Some of the hazards are old and remain constant. Some threats, however, are new and require changes in planning. Unfortunately, many writers on disaster, planning quickly, assume the jargon of the professional civil defense workers and one is numbed and confused by terminology. Even at the risk of oversimplification, for the purposes of hospital planning, a burn is a burn, a cut is a cut, hysteria is hysteria and radiation sickness is radiation sickness. The important thing is to be current and ready to handle the patient who got hit by a brick and not to determine whether the propelling agent was labelled A or H or N or calibrated in Kilotons, Megatons or Microtons.

The foregoing five aspects create only a rough outline of the hospitals role. Many essential items are omitted. It is assumed that the work of State and National Hospital associations has or should have, done away with two old outworn attitudes. The "It can't happen here" attitude and the "If it does we can't do anything" attitude. "Anything can happen—we can't do everything, but we can do something," must be our outlook.

In summary, a hospital owes to its community a realistic inventory of its resources. A careful integration of those resources into community planning and, above all, a calm acceptance of disaster preparedness as a normal function of every hospital everywhere.

USES OF RADIOISOTOPES IN INDUSTRY

(Continued from Page 1634)

to warrant the use of radioactive techniques.

Applications of radioisotopes in industry are not restricted to the use of reactor by-products, though most of the examples cited do so. Much can also be done with naturally radioactive materials. More detailed descriptions of these applications may be found in the bibliography that follows.

Bibliography

1. Isotopes, An Eight Year Summary of U. S. Distribution and Utilization. USAEC (Mar.) 1955.
2. Bradford, John R.: Radioisotopes in Industry. New York: Reinhold Publishing Co., 1953.
3. Bleuler, Ernst, and Goldsmith, George J.: Experimental Nucleonics. New York: Rinehart and Company, Inc., 1952.

INCOME TAX RULING

A recent ruling of the Internal Revenue Service made it clear that Medicare payments to doctors must be reported for each tax year if they total $600 or more. Specifically, the ruling is that Blue Cross-Blue Shield plans acting as fiscal administrators in processing Medicare fee claims, shall file a separate Form 1099 with the District Director of Internal Revenue for each physician to whom it makes payments of $600 or more in any one tax year.

Civil Defense and You

Ralph M. Sheehan
Lansing, Michigan

CIVIL DEFENSE is a live problem today, and is of distinct interest to the medical profession—for an effective civil defense program at all levels of government may mean the difference between quick resumption of community life or a disastrously prolonged period of recovery. Rapid recovery can only be assured by an awareness on the part of every individual in America as to his or her "stake" in our national defense. This "awareness need" also has its application to groups. Plans, for example, for the mobilization of our medical resources must include planning for civil defense as well as for more traditional military needs. The same might be said of our industrial capabilities. Actually, the measures taken in and among the medical professions to minimize the effects of attack or natural disaster are basic to assuring continuous production in our industrial plants without which there could be no strong mobilization or recovery action.

The protection of our citizens, our homes, our industrial strength, and our way of life cannot be left to chance. Nor can the responsibility be shifted. America's recovery from a devastating assault would not be automatic. It can only be assured by effective civil defense planning. Leadership today must concern itself with civil defense. That the decisions that effective and basic civil defense plans require are difficult is readily admitted. Yet the expense and inconvenience to which such efforts expose us may well be the most valuable investment we shall ever make in the future of America.

To relate the chain of events within the past decade that has now divided the world into two armed camps is not here required. The forces of totalitarianism are adamant in their determination that their form of government shall prevail throughout the world. The peoples of the free world are even more determined to protect the freedoms which dignify and protect the rights of man. So we find ourselves striving for international peace under the constant threat of war.

Whether we recognize it or not, the fact is that today the United States faces the greatest problem in its national history—that of providing defense against the increasingly powerful nuclear weapons being developed and stockpiled by possible aggressors. It is unfortunate, but nevertheless true, that a great many people are unwilling to recognize how vulnerable we are to the overwhelming devastation these instruments of destruction are capable of inflicting. It is strange—but true—that there are many who still believe that this country, bounded by two oceans, a polar ice cap, and friendly neighbors, is secure against attack, or they pin their faith on a defense that could never completely stop a full scale enemy attack. We have a false sense of security if we fail to realize that this nation must now reckon with a possible aggressor who has at his command intercontinental bombers and guided missiles, who's every scientific discovery and research project is geared to domination of the world.

Our national security, then, demands a capability for total defense. Nothing less can counter the total offense that is possible. Total defense can only be achieved by supporting our powerful military might with an effective and strong non-military defense.

The mission of civil defense is to protect life and property in the event of attack by measures to prevent, minimize, and repair injury and damage and to mobilize resources and production. Fulfilling this mission will involve every element and unit of government from Federal to local—every profession, every segment of business and industry and, properly, every citizen, every family, in the nation.

Government is placed at the top of the list because it is the key to all successful non-military defense. Meeting emergencies, small or large, natural or man-made, is the responsibility of government. It must keep control and give direction, with competance and assurance, and its emergency service must serve, protect, and lead the people. The effectiveness of your medical planning directly depends on how well government sustains itself.

Mr. Sheehan is Director, Michigan Office of Civil Defense, Lansing, Michigan.

In a nuclear war, should it come, the objectives of the enemy will be to immobilize as many of our people as possible.

Discussion of the problems confronting health and medical services following an attack by atomic, biological, or chemical warfare, staggers the imagination. The possibility of such an attack indicates the responsibility of the members of the medical, public health, and other interrelated professions to give consideration through research and planning to the problems of mass care and treatment that the citizens of this state would require under such attack conditions.

Perhaps no other professional group is so acutely aware of the untold benefits that can accrue to the well-being of mankind through study, research, and planning. Admittedly, no other group will have a more important role to play in writing the history of our ability to survive, recover, and retaliate than those who make up the medical and health professions of this state.

Perhaps, at best, for a period of time following an attack, the hospitals, laboratories, and technical equipment, as we know it now, will be replaced with partially destroyed buildings, broken gas and water mains, and with the most meager equipment with which to work. Working under these conditions, obviously, will demand raw courage from the professional and the patient alike. That this may be the lot of some seems inevitable. That it need not be the fate of many can be the result of preparedness through planning.

Some say there is nothing that we can do now—that the range of possibility is so wide and the ensuing chaos would be so overwhelming that no advanced thinking or preparation would be of any avail. Certainly, the possibility of nuclear, biological, and chemical warfare is frightening and the devastation it might bring would be horrible. But we are convinced that with government (at all levels) recognizing and acting on its civil defense responsibilities, public and private preparedness can make a difference—in fact, the difference between national survival or annihilation.

Certainly these are not pleasant observations to make—yet failure to recognize that the "tomorrows" for America are difficult ones would be to deny the existence of the struggle going on at this very moment which involves the proposition that either man is a gift of the Supreme Being, with a right to individual freedom, or that he is a pawn of the State, existing only for material reason.

Most readers of these words have lived through the era that has seen the writings of Marx, on Communism, change from an abstract theory into violent fact. Communism claims unto itself the sole right to interpret the destiny of man, rejects any rival, and holds that it is its exclusive right to chart the course of the future of mankind.

Those of us who have been blest with the privilege of living in the "miracle" of America, must become increasingly aware that Communism is a world conspiracy designed and directed by ruthless men. There must also be an awareness that the Marx-Lenin-Stalin ideology is no longer a subject for debating societies as such, but that it is present in all of its stark realism today. Less than fifty years ago, with Communism literally confined to one room, its leaders wrote that it must always be intolerant against all who oppose its growth. Today, with more than 35 per cent of the world's population under its domination, the prescription is the same.

Without using the old cliches that "We here in America are facing a critical period in history," or that "We are at the crossroads," or that "This is a time for decision," it must be crystal clear to Americans that we must face up to the realities of conflict imposed upon us by the existence of Communism and its doctrines. Unpleasant as it may be—like the medical fact that organic illness and its ensuing pain cannot be cured by aspirin—our international problems cannot be solved by looking the other way or by mentally rejecting their existence.

MEDICAL INTERN TRAINING

Today, in the United States alone, there are more than 20,000 medical school graduates with internships and licenses to practice medicine, who have elected voluntarily to devote one to four additional years to full-time study in hospitals and medical schools, to become competent specialists. Many more thousands of physicians each year attend courses of a few days to a few weeks' duration to learn about the most recent advances in medicine.

Emergency Child Birth

Rules for Self-Delivery

SINCE a disaster, due to warfare or natural causes, may occur at any time every pregnant woman should know how to deliver her baby if a doctor is not available. Most births occur without trouble.
Follow these rules:

1. Always keep on hand a bag containing the following:
   (a) Flash light.
   (b) Sweater, shawl or similar warm light garment.
   (c) Toothbrush, dentifrice and comb.
   (d) A small box of sanitary napkins.
   (e) One cake of soap.
   (f) Sheeting or newspapers.
   (g) Blanket.
   (h) Six clean diapers.
   (i) Six clean handkerchiefs.
   (j) Twelve safety pins.
   (k) Two baby shirts.
2. Save any available clean water for drinking.
3. When a disaster threatens try to find a reliable person to remain with you.
4. If labor pains occur less than 5 minutes apart and/or last longer than 30 seconds, regardless of where you are, find some protected place for shelter until your baby is born.
5. Do not touch the opening of the birth canal.
6. When the baby is born place him face down across your abdomen.
7. Help the baby to breath by wiping out the inside of his mouth with a clean handkerchief.
8. Cover the baby and keep him warm.
9. *Do not cut* the cord. *Do not pull* on the cord. Wait for the normal delivery of the afterbirth.
10. When the afterbirth is delivered, wrap it securely with the baby. *Do not cut* the cord.
11. After wrapping the afterbirth with the baby put the baby to breast and allow him to suck. This is good for both mother and baby.
12. Keep the baby with you constantly. For added protection, tear a narrow strip of identifying cloth from your clothing and tie it around the baby's wrist.

Physiologic Principles in the Treatment of Diabetic Acidosis

Randall G. Sprague, M.D.
Rochester, Minnesota

As a consequence of educational efforts on the part of individual physicians, institutions, and the American Diabetes Association, there is probably less diabetic acidosis today than formerly. Nevertheless, there remain ample possibilities for the occurrence of this serious complication of diabetes, and the physician may be confronted with the problem at any time. Its physiologic and therapeutic complexities are so great as to tax the ingenuity and knowledge of whatever physician is called upon to deal with it, and strain the resources of whatever institution houses the patient.

Whether or not acidosis has progressed to the point of coma, it must be regarded as a grave emergency which can terminate in death within a relatively short time after its onset. The patient in severe acidosis is, as it were, on a toboggan run, at the bottom of which is death. With the passage of time, the pace of his downward course accelerates, and the dangers of delay in treatment become progressively greater. Unless his metabolic deterioration is arrested by appropriate therapy, a fatal termination is more or less inevitable.

Certain aspects of the pathologic physiology of diabetic acidosis merit emphasis because of their bearing on problems of therapy. In addition, further disturbances of physiology may be induced by the therapy itself, and these are sometimes of grave clinical significance. One example of this is the hypopotassemia which may develop during the course of treatment if potassium is not administered.

Physiologic Disorders in Acidosis

There are four principal areas in which serious interrelated physiologic disorders occur, each of which requires more or less specific therapy.

1. Distorted energy metabolism. This refers to disturbances of the metabolism of carbohydrate, protein and fat which are initiated by lack of insulin.

2. Disturbed acid-base equilibrium or acidosis. This arises primarily and essentially, but not exclusively, from the ketonemia which is a consequence of accelerated partial catabolism of fat and from losses of sodium in the urine and emesis. The ketone bodies are anions which accumulate in the extracellular fluid. They have the effect of reducing the plasma bicarbonate and eventually the plasma pH. Obviously, prompt arrest of ketogenesis is an essential aspect of early treatment.

3. Disturbances of water metabolism. These arise primarily as a consequence of vomiting and of profound diuresis, owing to an increased concentration of glucose and other metabolites in the extracellular fluid. Eventually intracellular and extracellular dehydration, hemoconcentration, anuria and circulatory shock intervene and complicate the therapeutic problem.

4. Abnormalities of mineral metabolism. Large deficits of various ionic substances, and abnormalities of their concentrations in intracellular and extracellular fluid, develop which are intimately related to the previously mentioned disorders.

Priorities in Treatment

In milder cases in which the sole or major disturbance is in the metabolism of carbohydrate, protein and fat, without serious secondary consequences, the question of priorities does not arise. If the patient has few or no symptoms of acidosis, therapy is directed at restoration of normal carbohydrate metabolism, and this suffices to arrest ketogenesis and thus permits ketosis to subside. Insulin is obviously the prime essential in such cases. It is preferably administered around the clock by some systematic program such as the 6-hour emergency program devised by Woodyatt,[12] or one of its modifications involving administration of multiple doses of regular insulin at evenly spaced intervals together with multiple uniform feedings. Such a program is continued until ketosis has been corrected and the intercurrent illness or injury that initiated the acidosis has been satisfac-

From the Section of Medicine, Mayo Clinic and Mayo Foundation.
The Mayo Foundation, Rochester, Minnesota, is part of the Graduate School of the University of Minnesota.

torily controlled; thereafter a normal program of therapy can be resumed.

More severe acidosis leads to a metabolic catastrophe in which multiple physiologic disturbances coexist. The therapeutic attack must be pushed on several different fronts, and the hard-pressed physician may wonder what aspect of treatment should be given priority. Actually, when one is dealing with a combination of severe acidosis, dehydration, deficits of electrolytes, and perhaps shock and anuria, priorities in treatment begin to lose significance, for each of the physiologic disturbances then present is potentially lethal, and all must be treated simultaneously. A practical exception is that administration of insulin can and should be given first consideration and, whenever possible, should be initiated even before the patient reaches the hospital or within a matter of minutes after recognition of the patient's condition, preferably in the emergency room of the hospital.

In the discussion which follows, major emphasis will be placed on severe acidosis with multiple serious physiologic disturbances, on the presumption that the physician who is skillful in managing this type of case will be quite capable of handling the milder and less complex situations.

Administration of Insulin

Inasmuch as diabetic acidosis in its inception is a state of insulin deficiency, and the patient, in effect, is dying of uncompensated diabetes, insulin must be provided in effective amounts. In a particular case, the questions of how much insulin to give and how often it should be given cannot be answered with precision. Certainly no fixed routine should be followed, for there is enough variability among different patients in the requirement for insulin to make a routine schedule of doses hazardous to some of them. The most important basic principle is to give an amount early in the course of treatment which will produce a maximal physiologic effect. A review of failures in the treatment of diabetic acidosis usually reveals a group of cases in which the major fault clearly was an inadequate amount of insulin.

The hazards of hypoglycemia from excessive amounts of insulin can be anticipated and averted if the patient is watched closely, as he should be, and if information is obtained at frequent intervals regarding the concentration of sugar in the urine and in the blood and the recession of ketosis. An indwelling catheter makes it possible to follow, at short intervals, declining values of sugar and ketones in the urine.

TABLE I. DEFICITS IN DIABETIC ACIDOSIS*

	Patient 1	Patient 2
Sodium+magnesium (mEq.)	300.4	375.1
Potassium (mEq.)	385.2	181.5
Calcium (mEq.)	210.0	152.9
Chloride (mEq.)	110.0	168.3
Phosphorus (mEq.)	262.2	204.2
Fluid (ml.)	5036.0	5159.0

*Adapted from Atchley and associates.

One should be willing, therefore, to risk overtreatment with insulin in preference to undertreatment. For an adult patient in severe acidosis, an initial dose of 100 to 400 units may be given, and similar doses may be repeated every two hours as necessary to insure a decline in sugar and ketones in blood and urine. While it is true that some patients in acidosis are successfully treated with a total dose of 100 units or less, and while small children generally require smaller doses than adults, insulin should be given promptly and in amounts which will produce a decisive physiologic effect as indicated by decreased values of sugar and ketones in the blood and urine in the first few hours of treatment. If, in spite of large doses, such decrease does not occur, the patient is unusually refractory to insulin, and even larger doses should be given.

Reliance should be placed on regular insulin given subcutaneously unless the patient is in a state of shock, in which case a large initial dose can be given intravenously. We have at times administered protamine zinc insulin in addition to regular insulin in order to ensure a carry-over of insulin effect after the acidosis has been largely corrected. However, such use of long-acting insulin should not be reckoned as a part of the treatment of the acute emergency.

Question of Early Administration of Glucose or Fructose

Glucose.—Advocacy of large doses of insulin calls for discussion of the question of early administration of glucose. Theoretically, the advantages of this are the build-up of a "head of pressure" of

glucose which accelerates its utilization,[10] and at the same time, the provision of insurance against the hazards of hypoglycemia. However, it would appear that glucose, if given in sufficient quantity to maintain hyperglycemia, and consequently extracellular hypertonicity, may result in harm by preventing the cells from recovering their lost water. In addition, diuresis is promoted and loss of needed electrolytes is accelerated. More important than either of these arguments is the fact that early administration of glucose interferes with evaluation of the adequacy of the insulin dose, because one of the principal criteria for this evaluation, the level of the blood sugar, may be invalidated.

Later in treatment, however, when the blood sugar has fallen below 150 mg. per 100 cc., and when a supply of electrolyte-free water may be desirable to promote formation of urine, solutions of glucose can and must be used if oral intake of fluids is not yet possible.

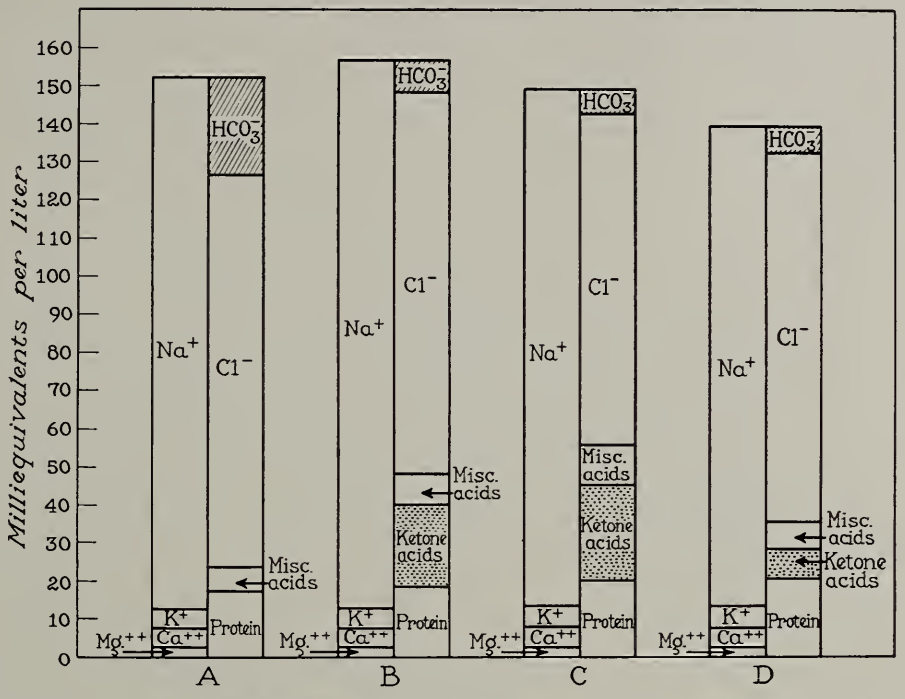


Fig. 1. Acid-base derangements in the blood serum in three cases of diabetic acidosis, compared with normal. Miscellaneous acids, determined by difference, include phosphate, sulfate, lactic acid, uric acid, and amino acids. (A) Normal. (B) Diabetic acidosis of short duration in a fourteen-year-old girl. Probably as a consequence of rapid dehydration, owing to intense polyuria, there has been a slight increase in the concentration of total base of the serum. The concentration of serum bicarbonate has been greatly reduced, corresponding roughly to the accumulation of ketone acids in the blood. The patient had vomited only once and the serum chloride concentration remained essentially normal. (C) Severe acidosis of about three days' duration associated with vomiting in a boy, aged 17 years. A large accumulation of ketone acids, a decrease of total base, and an increase of miscellaneous acids have contributed to reduction of the serum bicarbonate to a dangerously low level. Moderate hypochloremia is present. (D) Diabetic acidosis in a woman, aged fifty years, who had been having symptoms of uncontrolled diabetes for two years. Overproduction and excretion of ketone acids had probably been in progress for a prolonged period before she became critically ill. As a consequence, there has been a marked decrease of total base, chiefly sodium, as well as a severe reduction of serum bicarbonate, in spite of a relatively small accumulation of ketone acids in the blood.

Fructose.—The therapeutic value of fructose remains unproved, but this in itself is not a valid argument against its use. A theoretical argument in favor of its use is that it enters the glycolytic cycle without the need for insulin, and Rosecan and Daughaday[9] have presented evidence that it may accelerate the disappearance of ketone bodies. However, administration of fructose does not do

away with the need for large amounts of insulin, and in the presence of adequate supplies of insulin, it is doubtful that fructose offers significant therapeutic advantage. A certain proportion of diabetic acidosis owing to withdrawal of insulin (Table I). The electrolyte pattern of the extracellular fluid, as measured in blood serum, may be profoundly altered (Fig. 1). Repletion of the

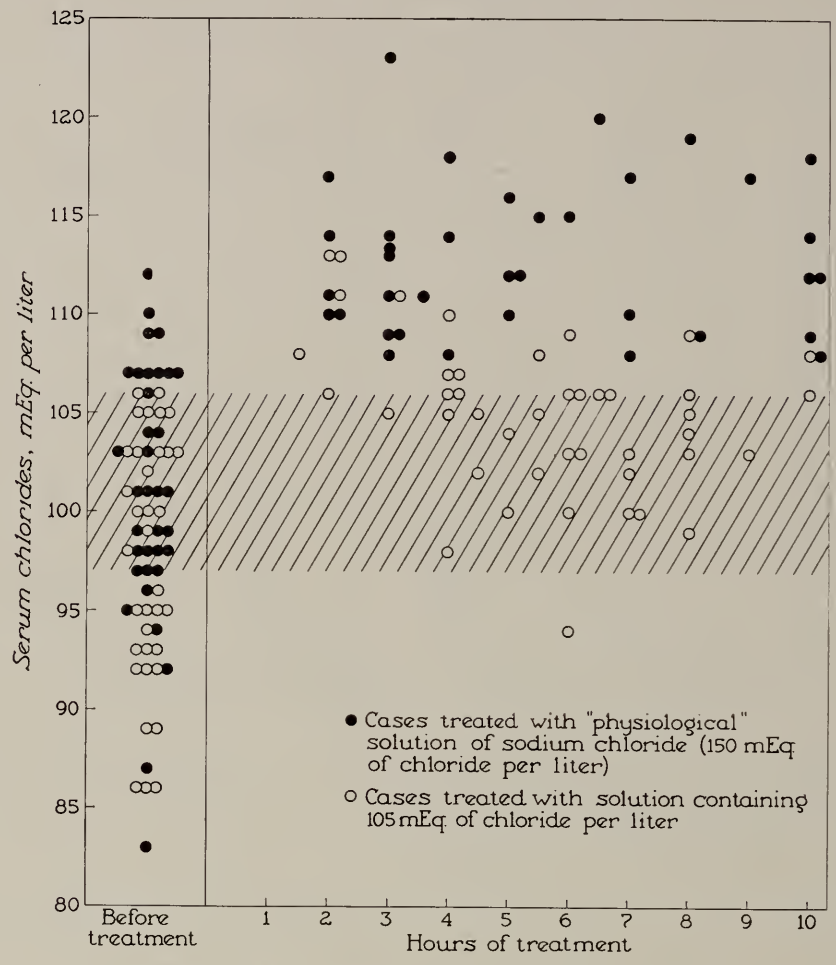


Fig. 2. Relation between serum chloride levels and the chloride concentration of the repair solution employed in seventy cases of diabetic acidosis. In each case, the highest value during treatment is charted. In a few cases, two equally high values are charted. In this Figure and in Figures 3 and 4, the normal range is indicated by a shaded area. (From Sprague, Randall G., and Power, Marschelle H.: Electrolyte Metabolism in Diabetic Acidosis. J.A.M.A., 151:970-976 (Mar. 21) 1953.)

administered fructose goes into the liver and then comes out as glucose and thereby elevates the blood sugar. It thus has the possible disadvantage of interfering with evaluation of the adequacy of the insulin dose, and it may also aggravate extracellular hypertonicity and cellular dehydration. It appears that the potential disadvantages of administration of fructose and its lack of demonstrated value probably outweigh its theoretical advantages.

Repletion of Electrolytes

As shown by the classic study of Atchley and associates in 1933,[1] large deficits of electrolytes, particularly sodium and potassium, are present in deficits and correction of the abnormalities of serum electrolytes are important aims of therapy.

Conventional treatment with insulin, water and sodium chloride, with or without glucose, may induce important disturbances of electrolytes in addition to those which were present before therapy was begun. In a significant proportion of fatal cases, after apparently good initial progress, death occurs about eight to sixteen hours after initiation of therapy, at a time when ketogenesis has been arrested, hyperglycemia corrected and hydration restored. Frequently, necropsy in such cases does not disclose an anatomic basis for death,

and it is difficult to escape the conclusion that the treatment itself may have contributed in some manner to the fatal outcome.

As a means of keeping track of the chemical landmarks during the course of treatment, determinations of the values of serum bicarbonate and chloride are made at intervals of two to three hours during the period of correction of acidosis, in addition to determinations of the values of blood sugar, plasma ketones, and the blood urea, if initial values were greatly elevated, or if renal disease is known to be present. The value of serum potassium is determined as indicated by a flame photometer, or approximated electrocardiographically.

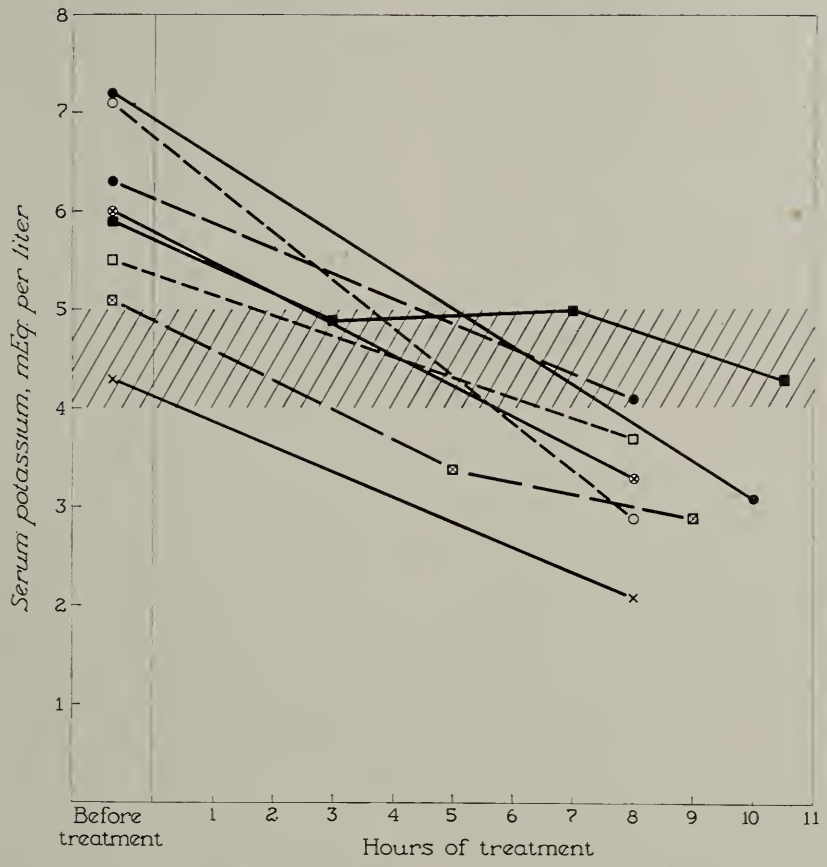


Fig. 3. Changes in the concentration of serum potassium during treatment of diabetic acidosis in eight cases. (From Sprague, Randall G. and Power, Marschelle H.: Electrolyte Metabolism in Diabetic Acidosis. J.A.M.A., 151:970-976 (Mar. 21) 1953.)

Sodium and Chloride.—In the early hours of treatment, the most important aspect of electrolyte therapy is correction of deficits of sodium and chloride.[4] Since the volume of extracellular fluid is definitely decreased, normal or even elevated concentrations of sodium and chloride in the serum do not indicate that there is not a deficiency of these ions.

During repletion of deficits of sodium and chloride, it seems desirable to maintain the concentration of chloride in the extracellular fluid somewhere near normal. Hyperchloremia resulting from administration of excessive amounts of chloride ion delays correction of acidosis, for serum bicarbonate is displaced by chloride as well as by ketone acids and other accumulated anions, producing a degree of chloride acidosis in addition to ketonemic acidosis. The persistence of acidosis prolongs hyperpnea unnecessarily and there is some evidence that it may interfere with the action of insulin.[8] An unavoidable disadvantage is thereby imposed on an ill patient. While the magnitude of this disadvantage is admittedly difficult to evaluate, hyperchloremia is an abnormal state which can and should be avoided.

To avoid hyperchloremia, solutions may be em-

ployed which contain approximately 100 mEq. or less of chloride and 150 mEq. or less of sodium per liter.[11] So-called physiologic solution of sodium chloride is distinctly unphysiologic with respect to its content of chloride, which is approximately 150 mEq. per liter. Figure 2 shows a comparison of the highest values for serum chloride in two groups of cases, in one of which the replacement fluid was physiologic solution of sodium chloride and in the other, a solution containing 105 mEq. of chloride per liter. With the electrolyte solutions for intravenous administration which are now available, and the supplementary solutions which may be added to them, it is a relatively simple matter to prepare solutions containing both sodium and chloride ion in approximately physiologic amounts.

Potassium.—Potassium is the principal intracellular cation and in spite of elevated concentrations in the blood serum prior to treatment, there is uniformly a significant deficit of this ion.[3] Clinically, it is only after several hours of treatment that difficulties due to potassium deficiency become apparent. At this time, the concentration of potassium in serum may reach a low level, sometimes less than 2 mEq. per liter. The behavior of the serum potassium in a group of eight cases of diabetic acidosis is shown in Figure 3. Mechanisms involved in the development of hypopotassemia include removal of the ion from extracellular fluid owing to deposition with protein and glycogen and continued losses in the urine.

A low level of serum potassium may or may not be associated with symptoms of potassium deficiency. Perhaps the magnitude of the intracellular deficit of potassium, which is a function of the antecedent loss of this ion, is as significant a factor as the concentration of potassium in the extracellular fluid. Symptoms of potassium deficiency, when they occur, are related to impaired function of skeletal muscle and myocardium.[5] Muscular weakness may become extreme. The heart may fail and it may be refractory to digitalis glucosides. When weakness involves the muscles of respiration, the acidotic patient is deprived of one of his principal defenses against acidosis, namely, the ability to hyperventilate and thereby maintain a low carbon dioxide tension in the extracellular fluid. In this connection, it should be noted that narcotic drugs, because of their respiratory depressant action, may retard the elimination of carbon dioxide through the lungs with consequent intensification of acidosis. Therefore, administration of narcotic drugs to the patient in severe diabetic acidosis is hazardous.

In the treatment of severe acidosis administration of potassium is started approximately four to six hours after the initiation of therapy, provided that the output of urine is satisfactory and adequate amounts of insulin have been administered. By then, almost uniformly, the concentration of potassium in the serum has decreased significantly and evidences of potassium deficiency may be apparent in the electrocardiogram. Since there is no way of estimating with any precision the magnitude of the deficits which are to be corrected, a safe procedure is to administer potassium at a conservative rate of approximately 25 mEq. per hour in adult patients. This is continued until intravenous administration of fluid can be stopped and oral feedings begun. Deficiency of potassium is associated with deficiency of phosphorus, and both substances can be supplied in the form of a buffered solution of potassium phosphate. The preparation may be preferable to potassium chloride, since the latter may provide an unwanted amount of chloride along with the wanted amount of potassium.

Phosphorus.—The behavior of phosphorus in diabetic acidosis parallels that of potassium in many respects. With treatment, unless phosphate is administered, a striking decrease occurs in the concentration of inorganic phosphate in the blood serum. Data obtained in eight cases are shown in Figure 4. In contrast to potassium, however, the clinical implications of phosphorus deficiency and hypophosphatemia are not clear. There is no particular reason to think that depletion of phosphorus plays a role in the fatal outcome of diabetic coma. Nevertheless, the deficit is of such large magnitude that it may conceivably be desirable to take steps to correct it.

Likewise, the importance of depletion of other ions which are in deficit, particularly magnesium, is not known, and to date we have not made a practice of administering magnesium to these patients. Physicians who may feel inclined to undertake therapy with magnesium should be reminded that administration of excessive amounts may produce respiratory failure and labile hypotension.

Repletion of Water

Losses of water in severe diabetic acidosis may be extreme, sometimes amounting to 10 per cent or more of body weight. The metabolic data of failure. Subsequently, administration of fluid may proceed more slowly. Replacement of the total fluids can usually be accomplished with safety in the first twelve to twenty-four hours of treatment.

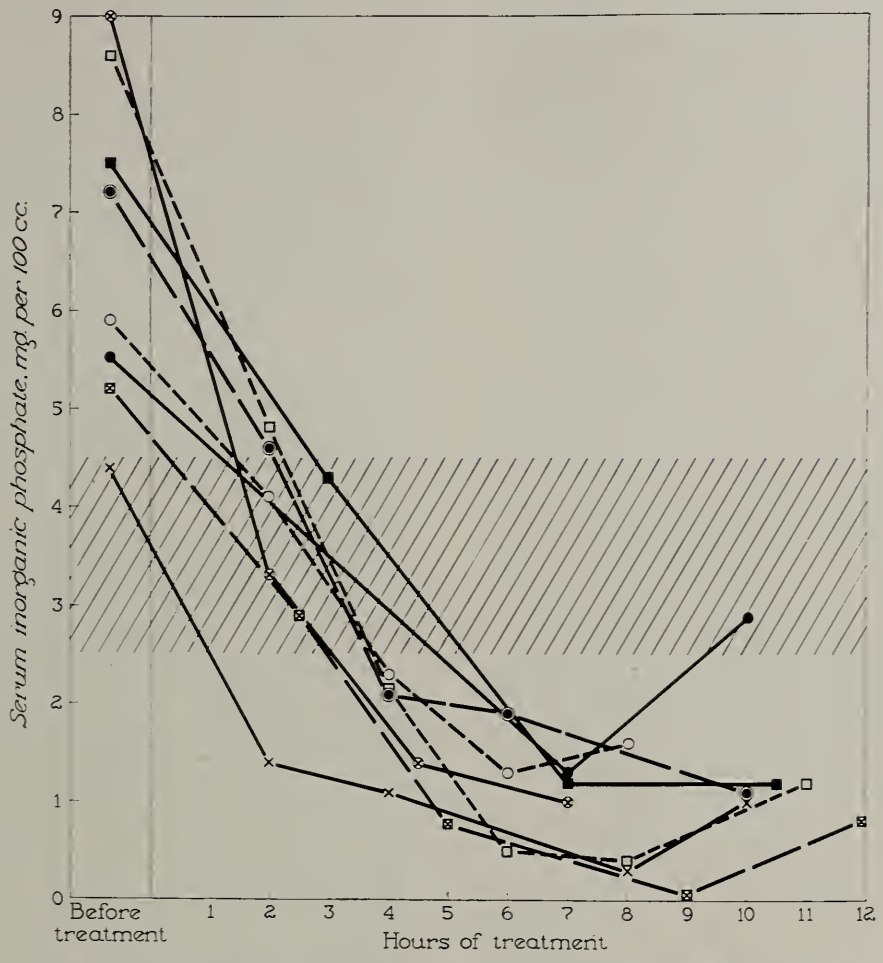


Fig. 4. The development of hypophosphatemia during treatment of diabetic acidosis in the same eight cases charted in Figure 3. Inorganic phosphate is expressed as phosphorus. (From Sprague, Randall G. and Power, Marshcelle H.: Electrolyte Metabolism in Diabetic Acidosis. J.A.M.A., 151:970-976 (Mar. 21) 1953.)

Butler and associates[2] suggest that the cells sustain a relatively greater loss of water than does the extracellular space. Clinically, loss of water is manifested by dehydration, hemoconcentration, circulatory shock, and anuria.

Certain basic principles in water repletion can be applied as necessary to meet the needs of the individual patient. Parenteral fluids are best administered intravenously. As a rule, in adults the first 1 or 2 liters can be given rapidly, even when there is evidence of circulatory failure, for the latter is more likely to be related to depletion of salt and water, with severe contraction of the volume of extracellular fluid, than to myocardial

When the patient is ready to accept liquids by mouth, water, fruit juice, soups, soft drinks and so forth are given, and any remaining deficit is thereby corrected in a safe manner.

Replacement of fluids and other treatment may fail to prevent or correct circulatory collapse. Indeed, Danowski[7] has advocated early treatment of all patients in severe diabetic acidosis with colloid solutions, on the presumption that any patient who has fully developed acidosis has some measure of circulatory inefficiency arising from the large deficits of extracellular water and salt. My associates and I do not treat shock until it becomes clinically apparent, but we are aware

that early recognition and treatment of shock are important. Howard[6] has pointed out that estimations of the hematocrit reading before and during treatment may help in the early detection of shock or lack of response of existing shock to treatment. Failure of the hematocrit to fall 5 to 10 per cent in the first few hours of treatment with adequate amounts of intravenously administered fluid and electrolytes indicates that the desired dilution of blood is not occurring because too much of the administered fluid is leaving the circulation. Under these circumstances, or in the presence of frank shock, transfusions of plasma, whole blood or colloid solutions such as dextran may help to correct a potentially serious situation. Levofed may occasionally be lifesaving.

As treatment progresses, the possibility of overhydration must be borne in mind. Attention to certain signs will help to avoid trouble in this regard; namely, rales indicative of moisture in the bases of the lungs, a low output of urine in spite of administration of a large volume of fluid, a low hematocrit reading, venous distention or a rising venous pressure, and the appearance of frank edema. Preferably before such signs appear, the rate of administration of fluid should be diminished, or administration of fluid should be stopped entirely until there is effective diuresis.

Summary of Parenteral Therapy

The important aspects of parenteral therapy of diabetic acidosis, therefore, can be summarized as follows: The patient should promptly be given a dose of insulin which is considered to be adequate or more than adequate to produce a decisive physiologic effect. Thus, if his usual dose of insulin is 50 units daily and if his plasma bicarbonate is 5 or 6 mEq. per liter and the blood sugar 500 mg. per 100 cc., one can start by giving him 300 or 400 units, followed by additional doses of 100 or 200 units every two hours until a decisive breakthrough in his blood sugar, plasma bicarbonate and plasma ketones has been made. Therapy with fluid and electrolytes can be initiated at a rapid rate with a solution containing 150 mEq. of sodium, 100 mEq. of chloride and 50 mEq. of lactate. After about four hours, providing the blood sugar is falling and urine output is satisfactory, 25 mEq. of buffered solution of potassium phosphate can be added to this for administration each hour. When the value of blood sugar has fallen to about 150 mg. per 100 cc. and additional water is needed for formation of urine, solutions of glucose in water can be started with added potassium phosphate; 40 mEq. of sodium lactate also may be added to each liter if the serum bicarbonate remains low. Oral feedings of fluid containing carbohydrate and electrolytes are started as soon as feasible.

Miscellaneous Measures

Certain other measures may be important or helpful in some cases. If there is even a suspicion of gastric dilatation, and particularly if a splash can be detected on palpation of the epigastrium, gastric lavage should be performed. The old practice of keeping the cold patient warm with hot water bottles or electric pads is probably not well founded, particularly if the patient is in shock, for the peripheral vasoconstriction which produces a cold skin is probably a helpful physiologic adjustment.

Complicating conditions which may have precipitated the diabetic acidosis or contributed to its severity should receive appropriate treatment. These include particularly myocardial infarction, other vascular accidents, infections, injuries and hyperthyroidism.

The Importance of a Running Record of Therapy

In the management of severe acidosis, it is important not only to obtain information regarding the patient's status at regular intervals, but also to keep a concise tabular record of these data in chronologic order which will permit easy and frequent review. Otherwise, the patient's chart will become filled with a mass of notes and figures which, after a few hours, will be difficult to interpret. To avoid confusion, an orderly detailed record of everything that transpires should be kept on a "coma sheet." Thus, a notation is made when a blood sample is drawn and the values for the determination made on that blood sample are entered, and a notation is made of the hour of receipt of the report from the laboratory. Then it is clear that a decision regarding therapy which is made at 1 o'clock is not based on a laboratory report which did not reach the physician until 2 o'clock. Careful but brief notes should be made regarding the patient's state of consciousness, respiration, pulse, blood pressure and so forth. Without such a record, the physician managing a case of diabetic coma is like a captain navigating a ship without a compass or rudder.

Conclusions

It is true that most patients will recover from diabetic acidosis, as they have for many years, without precise attention to the finer details of electrolyte, water and other therapy. This, however, is not sufficient reason for reducing these aspects of treatment to a routine, for there is no reliable way of separating in advance the majority of patients for whom carefully individualized treatment is not important from the minority of patients for whom it may be of vital importance.

It should be recognized that prevention of diabetic acidosis is the most important aspect of treatment, for even the most skillful management will not eliminate all mortality. There will continue to be a small number of irretrievably ill patients who will die in diabetic acidosis, or soon after its correction, in spite of the most expert treatment. However, if present-day knowledge of treatment is skillfully applied, this group should be made up, for the most part, of patients who arrive at the hospital in irreversible shock or with severe complicating illness.

References

1. Atchley, D. W., Loeb, R. F., Richards, D. W., Jr., Benedict, Ethel M., and Driscoll, Mary E.: On diabetic acidosis: A detailed study of electrolyte balances following the withdrawal and reestablishment of insulin therapy. J. Clin. Invest., 12:297-326 (Mar.) 1933.
2. Butler, A. M., Talbot, N. B., Burnett, C. H., Stanbury, J. B., and MacLachlan, E. A.: Metabolic studies in diabetic coma. Tr. A. Am. Physicians, 60:102-109, 1947.
3. Danowski, T. S., Peters, J. H., Rathbun, J. C., Quashnock, J. M., and Greenman, L.: Studies in diabetic acidosis and coma, with particular emphasis on the retention of administered potassium. J. Clin. Invest., 28:1-9 (Jan.) 1949.
4. Danowski, T. S., Winkler, A. W., and Peters, J. P.: Salt depletion, peripheral vascular collapse, and the treatment of diabetic acidosis. Yale J. Biol. & Med., 18:405-417 (May) 1946.
5. Holler, J. W.: Potassium deficiency occurring during the treatment of diabetic acidosis. J.A.M.A., 131:1186-1189 (Aug. 10) 1946.
6. Howard, J. E.: Observations on the therapy of diabetic acidosis. Proc. Am. Diabetes A., 10:152-159, 1950.
7. Howard, J. E., Danowski, T. S., Knowles, H. C., Jr., Lukens, F. D. W., and Sprague, R. G.: Fluids and electrolytes in the therapy of diabetic acidosis. (Panel discussion.) Diabetes, 4:465-472 (Nov.-Dec.) 1955.
8. Mackler, Bruce, Lichtenstein, Henrik, and Guest, G. M.: Effects of ammonium chloride acidosis on the action of insulin in dogs. Am. J. Physiol., 166:191-198 (July) 1951.
9. Rosecan, Marvin, and Daughaday, W. H.: A comparison of insulin treatment with and without added carbohydrate in human diabetic ketosis. J. Clin. Invest., 33:49-56 (Jan.) 1954.
10. Soskin, Samuel, and Levine, R.: A relationship between the blood sugar level and the rate of sugar utilization, affecting the theories of diabetes. Am. J. Physiol., 120:761-770 (Dec.) 1937.
11. Sprague, R. G., and Power, M. H.: Electrolyte metabolism in diabetic acidosis. J.A.M.A., 151:970-976 (Mar. 21) 1953.
12. Woodyatt, R. T.: Diabetes Mellitus. In Cecil, R. L.: A Textbook of Medicine. Philadelphia: W. B. Saunders Company, Ed. 6: pp. 602-625, 1943.

ACUTE DISSECTING ANEURYSM OF THE AORTA

Surgical correction of dissecting aneurysm of the aorta is now possible. The exact diagnosis of this condition is therefore more important than ever. The histories of eleven patients who underwent surgery have been analyzed in order to identify retrospectively the symptoms and findings most valuable in establishing the diagnosis. The most important was a history of very severe pain which usually radiated to the back and frequently moved from its original location to another area; it was more severe than the pain of myocardial infarction and particularly significant in the absence of electrocardiographic abnormalities. Roentgenograms were of critical importance in nine of the eleven cases, especially in one instance when the aortogram showed a double-barreled lumen. A difference in the peripheral pulses was present in six cases. Systolic murmur, abdominal bruit, and an abdominal mass occurred in less than half of the cases, but were helpful diagnostic points when they did occur. Four of the eleven patients survived surgery and did well after operation. Although the mortality in this series was high, the risks of allowing acute dissecting aneurysm to go untreated are so great that the authors advise prompt operation as soon as diagnosis is established. (Abstracted from Julian R. Beckwith, William H. Muller, W. Dean Warren, and J. Edwin Wood, Jr.: *A.M.A. Arch. Int. Med.,* 104:217-225 (Aug.) 1959.

Prevention and Management of Postgastrectomy Symptoms

Millington O. Young, M.D., F.A.C.S.
Detroit, Michigan

PARTIAL gastrectomy is generally conceded to be the most acceptable operative procedure when surgical treatment is required for acid-peptic ulcer disease. However, physicians often are hesitant in recommending such treatment, particularly when the patient is in the younger age group. This is not related to the morbidity or mortality of the operation itself. Rather, it is due to the status that occasionally follows recovery from the procedure. Inability to eat normal meals, inability to gain or maintain weight, and the various distressing post-prandial symptoms that may occur are the reasons for this reluctance. Most of the numerous publications dealing with this subject have been concerned with the alterations of body chemistry and hemodynamics that occur. These studies have been very helpful in elaborating some of the etiologic factors involved. However, many of these reports and most surgical monographs have failed to emphasize or even mention certain practical points of importance in the prevention and management of these disturbing symptoms.

Even the most enthusiastic advocates of partial gastrectomy do not claim this operation to be the final word in the surgical treatment of acid-peptic ulcer. The continued appearance of reports dealing with other operative procedures is one measure of this fact. However, the prevention of recurrent ulceration has been very satisfactorily managed by performing a 75 to 80 per cent resection of the distal stomach. Of more immediate concern are the reports dealing with the undesired symptoms which may follow removal of this much of the stomach. By general usage, the term "dumping syndrome" has come to signify almost any symptom which may follow the establishment of a gastrointestinal anastomosis. The causes are several, and the treatment, whether preventive or corrective, must be directed at the specific cause.

There are perhaps as many ways to perform a gastrectomy as there have been surgeons to perform the operation. A surgeon has no need to consider any modification of his technique or management if his patients do not develop recurrent ulcerations or disagreeable postoperative symptoms. However, when either occurs, the operative technique and subsequent management should be carefully reviewed in an effort to determine the cause. Only then can the situation be remedied in the particular patient and perhaps prevented in future patients. The following suggestions have proven most helpful in preventing or correcting undesired symptoms after partial gastrectomy. No claim of originality is made.

From The Department of Surgery, The Riverside Clinic, Detroit, Michigan.

Dietary Measures

Many patients about to undergo gastrectomy for acid-peptic ulcer disease have had occasion to discuss the operation with other patients, their relatives or friends. Some have exaggerated fears of the procedure and its possible consequences. Prior to operation, brief but firm reassurance should be given the patients regarding their future ability to eat regular meals. No details of this phase of the management are volunteered except that it is planned for them to be eating a regular hospital soft diet by the fifth postoperative day. At this time, it is perhaps best to explain the reasons for the routine use of gastric suction tubes, blood transfusions and intravenous fluids, breathing and leg exercises, and early ambulation. A few moments so spent will lead to better cooperation from less apprehensive patients during the early postoperative period.

In the first few weeks after gastrectomy, it is not expected that the patient can eat a meal of usual quantity. At least four meals daily are recommended. Restriction of liquid intake with meals is very important if the patient does not eat all of the food served. It is explained that liquids such as water compete with solid food for space in the "smaller stomach." The patient may grasp the idea more readily if asked to visualize the soft and solid foods in a drinking glass alongside a glass of water. Explaining that weight and strength can only be regained and maintained

by eating food, the patient soon learns the advisability of drinking water and other liquids between meals.

Carbohydrates have been incriminated as an important factor in the cause of the true dumping syndrome. Identical symptoms can be produced in normal subjects with intact stomachs by direct introduction of hypertonic solutions into the jejunem.[7,13] After gastrectomy, the ingestion of glucose is much more apt to be associated with dumping symptoms than the more complex carbohydrates which require some time for the digestive processes required to convert them to simple glucose. Reduction of blood volume secondary to passage of fluid into the jejunal lumen to reduce the hypertonicity of the ingested material[15] and/or the jejunal distention that results[13] are believed responsible for the symptoms which have their onset fifteen to thirty minutes after eating. The onset of similar symptoms approximately two hours after eating may be due to a hypersensitivity to insulin with a resultant hypoglycemia.[1] These symptoms do not occur in persons with intact stomachs since glucose is not absorbed from the stomach until high concentrations are reached. After loss of the sphincter mechanism as a result of gastrectomy, ingested glucose may pass immediately into the jejunem and thus effect the above mentioned symptoms. In most individuals exhibiting either syndrome, reduction of the amount of carbohydrate taken in the form of glucose will usually relieve the distress. Sweet desserts, sweetened fruits, sweetened milk shakes or ice cream, and candies taken with or between meals are usually responsible.

The most negelected phase of the dietary management is that of adequate mastication. In a prominent textbook of physiology,[3] it is mentioned that more stress has been laid upon the chemical rather than the mechanical aspects of digestion since the Eighteenth Century. It is further stated that the mechanical factors in digestion are "in reality of just as great or even greater importance than the chemical factors. . . . The larger part of the stomach may be removed and provided the consistency of the food is made suitable, little digestive inconvenience results." Removal of most of the stomach results in the loss of its ability to break up food and reduce it to a semifluid consistency (chyme). There must be adequate chewing of solid foods if the ingested material is to be broken down so that the digestive processes may be completed and the nourishing elements absorbed prior to their passage into the colon. The time required for passage of food through the small bowel may be shortened after gastrectomy, further emphasizing the need for adequate chewing of food. Insistence on this point lengthens the time required to eat a meal with the result that the food is delivered more slowly to the sensitive proximal jejunem. It is mandatory to see that the patient has the necessary equipment for adequate mastication. If not, the indicated dental work must be carried out as soon as is feasible. It is not difficult to obtain the patient's cooperation in this matter when its importance is explained.

Patients are advised of the ability of alcohol, caffeine and nicotine to stimulate gastric (acid) secretion and that their avoidance is desirable. For the inveterate smoker or coffee drinker, it usually is possible to effect a compromise wherein they drink coffee or smoke only after meals when food is present to mix with the gastric secretions. Fried, greasy and highly seasoned foods are more difficult to digest and may cause some distress during the first few months of readjustment.

Another practical point deserves mention. After recovery from the operation, these patients should be followed by the referring physician. When the long range follow-up care is managed by a surgeon, the possible need of a subsequent operation is at least implied. In some patients, this may represent a significant source of tension and may be responsible for some distress, digestive or otherwise. When referred back to their physician, they are given strong assurance that no additional operative treatment will be required provided they follow instructions and report as directed for periodic examinations.

Technical Factors

After extensive studies over a period of several years, Randall[14] concluded that the major reason for loss of weight after gastric resections was the failure of the patients to eat adequate amounts of food. In most instances, this was due to an effort by the patient to avoid dumping symptoms. As regards the cause of these symptoms, I am in complete agreement with Haubrich[9] who stated "with full recognition of the surgeon's skill, I am convinced that the technic of the operation is a contributing factor." In many of the studies of post-gastrectomy symptoms, this important factor receives little or no consideration. The implications are several. There are numerous different

types of gastrectomy. There are numerous modifications of each of the different types. The technique of a single surgeon may vary from case to case even though employing the same type of operation. Avoiding a lengthy consideration of these factors, there is general agreement that certain principles should be incorporated in any type of partial gastrectomy. These include (1) resection of an adequate amount of stomach; (2) establishment of an anastomosis as high as feasible in the intestinal tract; (3) the construction of a stoma that does not cause obstruction or facilitate too rapid emptying of the gastric remnant.

After another rather extensive trial of the Billroth I type gastrectomy, the trend is back toward the Billroth II procedure.[6] The lower incidence of recurrent ulcerations when the Billroth II procedure is used in the treatment of duodenal ulcer is responsible.[12,18] In addition, the Billroth I operation has never gained favor with many surgeons because of the tendency to resect less than the required 75 per cent of the stomach and its lack of applicability when there is extensive involvement of the duodenum.

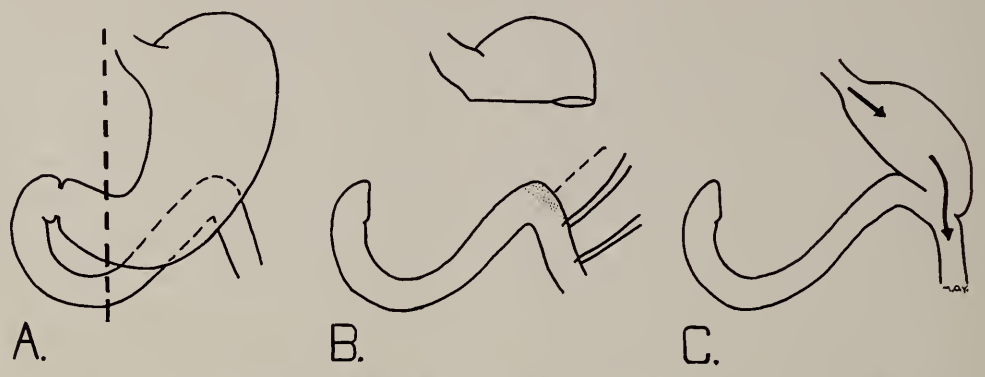


Fig. 1. (A) Usual anatomic relationship of the duodenojejunal junction to the stomach. Vertical line indicates relative position of high midline incision after excision of xiphoid process. (B) Line of incision in mesocolon indicated immediately adjacent to the duodenojejunal junction. Shaded area denotes region from which ligament of Treitz dissected free. Anastamotic site marked with two sutures inserted *before* jejunem displaced temporarily above mesocolon. (C) Completed anastamosis placed below mesocolon. No kinking of small bowel. No hitatus for internal hernias. Elongated fundus more mobile after high ligation of left gastric artery.

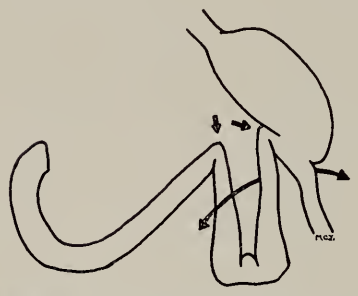


Fig. 2. Diagram indicating redundancy of proximal jejunem when an actual loop is used for retrocolic anastamosis. Short arrows indicate where kinking may occur. Long arrow passing posterior to anastamosis denotes hiatal site of possible hernias. The same sites of herniation and kinking will be present even though a shorter loop than the one indicated is used and thus the recommendation for a "no-loop" anastamosis.

When the Billroth II procedure is performed, the gastrojejunostomy may be performed anterior or posterior to the transverse colon. The disadvantage of the posterior anastamosis most often mentioned by surgeons is that if a marginal ulcer develops, its surgical management may be more difficult than when in an antecolic position. This is a result of the problems encountered in the management of marginal ulcers following posterior gastroenterostomy used as definitive treatment. Actually, marginal ulcers after *adequate* gastric resection are rare. The possible disadvantages to the patient of the antecolic anastomosis are several. The stoma is placed more distally in the jejunum, resulting in greater opportunity for kinking of the jejunem. This may cause obstruction of either the afferent or efferent loops. The former is one of the most important factors responsible for "blow-out" of the duodenal stump. The latter is a common cause of obstruction in the early postoperative period, often attributed to "edema of the stoma." The incidence of the troublesome "afferent loop syndrome" is greater after the antecolic anastamosis.[11,20] Intestinal obstruction may occur as a result of incarceration of loops of small bowel through the hiatus formed by the jejunal loop and transverse colon.[17,19] The longer jejunal loop re-

quired for antecolic anastamosis allows more resorption of bile and pancreatic juice before mixing with ingested food.[8] As a result, these important juices may be deficient with inadequate digestion and weight loss resulting. The ability of the intestinal mucosa to resist the action of acid-pepsin decreases as the distance from the pylorus increases.[10] Thus, there is theoretically an increased chance of developing a marginal ulcer in the longer loop required for the antecolic anastomosis.

It is believed that the performance of an adequate resection of the stomach with the establishment of a posterior, antiperistaltic, Hofmeister anastamosis, leaving the terminal duodenum and proximal jejunum in the same position as found on entering the abdominal cavity, is the best method of eliminating the technical factors responsible for recurrent ulcerations and undesired postoperative symptoms. It is usually stated that the posterior anastomosis allows use of a shorter loop of jejunum. For example, Walters[18] stated that the distance from the ligament of Treitz to the stomach is 15 cm. for a posterior anastamosis and twice that distance when antecolic. It is suggested that no loop of jejunum as such be used. After severing most of the ligament of Treitz, the most proximal jejunum is temporarily displaced above the mesocolon through an opening made immediately adjacent to the duodenojejunal junction. The region of the junction from which the ligament has been cleared is subsequently sutured to the middle third of the transected stomach. This protects the "critical angle" as well as establishes a wall directing ingested material into the efferent loop (Fig. 1). If an actual loop of jejunum is used, it may facilitate the technical maneuvers of performing the anastamosis, particularly if the incision used does not give adequate exposure. However when such an anastamosis is completed and placed below the mesocolon, kinks may result at either the duodenojejunal or gastrojejunal junctions which may cause obstruction (Fig. 2). Obstruction at either point may result in a duodenal stump blow-out or the afferent loop (bilious regurgitation) syndrome. In addition, herniation of intestinal loops may occur between a "short" retrocolic jejunal loop and the mesocolon.[2,17] Proper suturing of the mesocolic opening to the stomach just proximal to the anastamosis prevents herniations through the mesocolon. Dunphy[4] recently described a worthwhile refinement of technique. In thin patients, the terminal duodenum was exposed from above in its retroperitoneal position and used for the anastamosis. The transverse mesocolon was thus actually not opened and the inferior abdominal compartment not entered. In more obese patients, the



Fig. 3. Barium study following partial gastrectomy performed on 52-year-old man for duodenal ulcer. Note width of stoma and minimal filling of efferent loop (terminal duodenum).

ligament of Treitz is severed and the fourth portion of the duodenum dissected free and brought through an opening at the very base of the mesocolon just above the pancreas. The mesocolon is closed so that only the efferent loop and its mesentery pass through it, the gastric remnant and the anastamosis lying above.[5]

Approximately one third of the width of the stomach is used for the anastamosis. There is no advantage to the patient in making a stoma with a diameter greater than that of the proximal jejunum. Avoidance of the Polya type anastamosis is indicated in order to preserve some reservoir functon of the gastric remnant and to prevent ingested food and liquid passing into the afferent loop. Perhaps the only advantage of the Polya anastamosis is that it requires less operating time. The possible disadvantages certainly outweigh this minor convenience.

Adequate exposure is required for the successful

performance of any operation. This is particularly true in performing a high resection of the stomach. Ligation of the left gastric artery and high transection of the proximal stomach are facilitated by use of a high midline incision, excising the xiphoid process when necessary.[16,21] This incision provides excellent exposure for the performance of a posterior "no-loop" anastamosis in patients of all body types.

A barium study is recommended as soon as convenient after the patient is taking a soft diet well. The extent of the resection, the size of the stoma, its patency, and the progress of the meal in the small bowel are noted (Fig. 3). This allows a more exact evaluation of the extent of the resection than the surgeon's estimate. Improper function of the stoma or extensive filling of the afferent loop can be recognized and the symptoms which may result anticipated. In addition, a radiological baseline is established for comparison in the event further x-ray studies are required in the future. It should be mentioned that x-ray studies probably do not give an accurate estimate of the reservoir function of the gastric remnant. Liquids (including the barium suspension) pass into the jejunum more rapidly than solid foods.

Summary

A brief review of the factors responsible for undesired symptoms after partial gastrectomy is presented. When these symptoms occur, the need for critical evaluation of the dietary management and the pertinent surgical technique is stressed.

Mastication is a very important factor in the well-being of these patients which has not received adequate attention. Restriction of fluids taken with meals and glucose in the diet are also important measures in the management of these undesired symptoms.

Reasons are presented to substantiate the suggestion that the Billroth II resection using a posterior, antiperistaltic, Hofmeister anastamosis of the "no-loop" type is the procedure best fitted technically to eliminate undesirable post-gastrectomy symptoms.

References

1. Barnes, C. G.: Hypoglycemia following partial gastrectomy. Lancet, 2:536-539 (Oct. 11) 1947.
2. Berkas, E. M., and Ferguson, D. J.: Small-bowel obstruction after gastrectomy. A.M.A. Arch. Surg., 76:322-326, 1958.
3. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice. 6th ed. p. 503. Baltimore: The Williams and Wilkins Company, 1955.
4. Dunphy, J. E.: Paper presented before the Academy of Surgery of Detroit, March 13, 1958.
5. Dunphy, J. E.: Personal communication to the author, August 19, 1958.
6. Fallis, L. S.: The Billroth I gastrectomy. Surg., Gynec., & Obst., 105:107-109, 1957.
7. Fisher, J. A., Taylor, W., and Cannon, J. A.: The dumping syndrome: correlations between its experimental production and clinical incidence. Surg., Gynec., & Obst., 100:559-565, 1955.
8. Grossman, M. I., in Zimmerman, L. M., and Levine, R.: Physiologic Principles of Surgery. p. 576. Philadelphia: W. B. Saunders Company, 1957.
9. Haubrich, W. S.: Mechanism and management of the dumping syndrome. Henry Ford Hosp. Bull., 6:55-60, 1958.
10. Ivy, A. C., Grossman, M. I., and Bachrach, W. H.: Peptic Ulcer. p. 350. Philadelphia: The Blakiston Company, 1950.
11. Jordan, G. L., Jr.: The afferent loop syndrome. Surgery, 38:1027-1035, 1955.
12. Jordan, G. L., Jr.: Treatment of the dumping syndrome. J.A.M.A., 167:1062-1066 (June 28) 1958.
13. Machella, T. E.: Mechanism of the post-gastrectomy dumping syndrome. Gastroenterology, 14:237-251, 1950.
14. Randall, H. T.: Alterations in gastrointestinal tract function following surgery: nutrition and the dumping syndrome after gastrectomy. Surgical Clinics of North America. pp. 585-602. Philadelphia: W. B. Saunders Company, 1958.
15. Roberts, K. E., Randall, H. T., Bane, H. N., Medwid, A., and Schwartz, M. K.: Studies of the physiology of the dumping syndrome. New York State J. Med., 55:2897-2902, 1955.
16. Saint, J. H., and Braslow, L. E.: Removal of the xiphoid process as an aid in operations on the upper abdomen. Surgery, 33:361-366, 1953.
17. Stammers, F. A. R.: Remarks on fifteen cases of small-bowel obstruction following antecolic partial gastrectomy and one case following retrocolic partial gastrectomy. Brit. J. Surg., 42:34-38, 1954.
18. Walters, W., in Christopher's Textbook of Surgery. 6th ed. pp. 606-617. Philadelphia: W. B. Saunders Company, 1956.
19. Warren, R. P.: Acute obstruction of afferent or efferent loop following antecolic partial gastrectomy. Ann. Surg., 139:202-205, 1954.
20. Wells, C. A., and MacPhee, I. W.: The afferent loop syndrome: bilious regurgitation after subtotal gastrectomy and its relief. Lancet, 2:1189-1193 (Dec. 9) 1952.
21. Young, M. O.: The upper midline incision with a note on removing the xiphoid process. Northwest Med., 54:1087-1089, 1955.

8445 E. Jefferson Avenue
Detroit 14, Michigan

The Case for Medicine to the People

M. E. Ellis, M.D.
Grand Rapids, Michigan

In the past few years, doctors of medicine have been under fire from several groups. For example, recently on a television newscast, the reporter announced the day's births. He made quite a point that some doctors had failed to sign birth certificates for several days while osteopaths never failed. Various people and groups, such as labor, people in branches of government, journalists, and newscasters, are carrying on campaigns to misinform the public and control medicine. What is happening to the attitudes toward the medical profession? Here is a society of men schooled in the art and science of medicine whose heritage is as old as man, following principles of practice formulated by the ancient Greek Hippocrates. Through the ages, these principles have persisted and have been enriched with accumulated knowledge. Medical men are no less dedicated today than they were then. Let us examine the picture as its exists today.

Medicine Versus Cults

Since there has been a society of people, there has probably been a medicine man who ministered to the ills of his fellow man. From this beginning, medicine, as we know it today, has been derived. There have also developed various faith healers and cultists. These, too, have come down to us from the past to modern times. What are some of these? There are naturopaths, herbologists, colonic irrigationists, chiropodists, optometrists, physical therapists, chiropractors, cancer quacks, osteopaths, and "psychologists." Some of these "professions" even have formal schools to train them, such as they are. Many of these "professions" confer the title of "doctor" on their graduates with a certificate and a license to practice their "arts." How is a mentally disturbed person to know the difference between a "psychologist" and a psychiatrist, both being duly licensed by law to practice their field, and both calling themselves doctor? How is a person to know that the sore on his toe that was treated by a chiropodist won't heal because he has diabetes or inadequate circulation in his leg? Is the toe or foot isolated from the body so that one can specialize in it, disregarding the rest of the body? Did one ever have his toe stepped upon and not feel pain? When the cultists are treating a person who has a serious problem or develops a complication, whom do they call to take over? The M.D., of course. It is no wonder that the general public is confused. How is one to know what or who is best? Each conveys to the public his ability to do certain things, and he has a certificate to prove that he is qualified. What the public fails to realize is that over 50 per cent of the ills of the people are actually self-limited complaints that will correct themselves whether or not something is done to them or given to them. The trouble lies in the other less than 50 per cent where much harm can be done by delay in diagnosis and proper therapy. A colonic irrigation is not the right treatment for constipation, where the real cause is an undiagnosed cancer.

It would be wise for everyone who seeks medical attention from a member of any group who profess to be practitioners of any of the "healing arts" to ask this: "What has his profession contributed to the science of medicine that can improve my well-being"? If one is impartial and looks at the facts and the discoveries, one will find that all advances in medicine have been made by men in the medical (M.D.) profession and its associated and allied professions. In recent times, there have been the discoveries of the sulfa drugs; the antibiotics; the immunizations for various infectious diseases such as poliomyelitis; improvements in heart and vascular surgery; development of highly specialized surgical techniques in all fields of surgery, and new knowledge of blood diseases, to name only a very few. The list is endless. Can any of the cults claim any one advancement in medical science that has a factual, reproducible basis? In medicine, we are dealing with the most precious of all things, human life, which is worthy of only the best. Medicine is giving the best that is available to man's knowledge. I ask again, why has the medical profession been subject to unjustified adverse criticism?

Cost of Medical Care

Lately, certain labor leaders have turned their attention to the field of medicine. It seems that they feel that the American working man is not being cared for medically as well and as cheaply as they think he should be. There is no quarrel with this thought if it is based on fact. Generalizations and innuendoes do not make a thing so. Taking into consideration the size of this country and its rapid growth and development, the medical profession has nothing to be ashamed of. In fact, it is to be commended for its achievements in all fields of endeavor in the improvement of the health of this country. Admittedly, there are and will always be many areas in need of improvement. Progress is being steadily made in all of these areas, no matter which one may be discussed for arguments sake. They should be reminded that on its own, the medical profession was the first to undertake prepaid medicine on a large scale through its non-profit Blue Cross and Blue Shield plans. These are growing in size and coverage. Having started from scratch only twenty years ago, a great deal has been accomplished, with the people still enjoying the free choice of their doctor. Is this not better than extracting another tax to be paid to the government to set up a bureau with a large payroll and forms in quadruplicate—a bureau which may become a political football? Can't the people continue to provide themselves prepaid medicine over which they will have better local control than over a government bureau?

Certainly the cost of medical care has risen. The payroll of the average hospital takes two-thirds of the budget. Tremendous progress in diagnostic and therapeutic procedures cost money to develop and to perform. To name a few: new and expensive laboratory procedures such as steroid and enzyme studies; various blood chemistries, to tell how much of certain chemicals there are in the body; new procedures related to the field of X-ray, such as radio-isotopes, dye studies, and the cobalt bomb. The people deserve and demand the best. They are being provided with the best. However, it takes a great deal of money whether it be through tax dollars or through private dollars.

Another factor in the increased cost of medicine is the cost of drugs. These same drugs have eradicated some of the infectious diseases which used to kill and debilitate for long periods of time. These same drugs control some chronic ailments, such as arthritis, so that a person can be gainfully employed. If these could be measured accurately in dollars, one would clearly see how much is actually being saved per capita. If one could compare the dollar loss per illness of twenty years ago with the dollar loss today, taking into consideration population growth, one could see clearly this saving, not to mention the saving in lives and suffering. On the other hand, poorly regulated government sale of patent medicines are a drain on us economically. False claims made by their distributors mislead poorly informed people concerning the hazards of self-treatment. This too, adds greatly to the cost of medical care.

Last, doctor's fees have risen less than the per cent increase of the cost of living.

In these rapidly changing times, exactly what are these leaders asking for? Is it that these leaders have other motives now that unionism is well organized and the workers lot greatly improved? Is it purely a power politics maneuver in the guise of social welfare? *Are their promises to the worker more tangible than the accomplishments of men of medicine and the medical sciences?* Medicine can only point out the past and the present progress which is being dynamically projected into the future. Let not our memories be short and our emotions be swayed by statistics which can be made to belie the facts. If the labor leaders are interested in aiding the medical welfare of his countrymen, let him educate his followers regarding the tremendous financial and health losses that are caused by people who see cultists and by those who buy patent medicines. Let the unions set up scholarships to educate the many wasted minds of our youth, many of whom would go into the medical sciences. Thereby, we would eliminate any mediocrity and raise the high standards that prevail still higher. Let them advise and cooperate with the medical profession to improve the whole picture wherever it is necessary and not make demands that can only irritate all parties. There has been a slight start in this direction. May it continue. Again I ask, wherein has medicine failed?

Government and Medicine

Then we have government. By law, the cults have become legal entities with licenses to practice according to specifications limiting their scope. In this scientifically advanced and oriented so-

ciety is there a need for these cults? An open mind will accept valid proofs. The challenge is made. Government agencies, such as the Public Health Service, Veterans Administration, and the military services, recognize only the medical profession. Why aren't the abilities of the cultists employed? If the medical profession and its allied sciences have not encompassed all of the fields which the other healing arts claim, and more, haven't brought forth progress in all of these fields, then all of the "healing arts" must be eliminated and one medical profession instituted to accomplish this.

There are pure food and drug laws in existence which are not enforced to their maximum. Patent medicines are another source of economic and vital loss to the people. Cleverly worded advertisements may be within the interpretation of the law, but are not within the moral intent of the law. Morality is sacrificed to legality, which is "good business" and bolsters our economy. At what price!

Many insurance companies are engaged in medical health insurance coverage. A few of these companies have policies whose fine print restrictions coupled with clever salesmanship and advertising, all within the law, gouge countless dollars from unsuspecting, trusting people. Illness, not covered by their insurance policy, brings forth this realization too late. Morality again gives way to legality. Whom do the laws really protect?

In many respects the meaning of the word freedom is misinterpreted. Should groups be free to exist and thrive on the ignorance of uninformed people and flount the laws instituted for the protection of the people? For what are we accumulating knowledge if it is not to be utilized correctly and to best advantage? We no longer look into crystal balls or look to see how the eagle lands to tell what is true. Nor do we hook one up to a machine with electric attachments to find out what ails a complaining person. Those days are gone. Responsible elected representatives to government must be cognizant of these facts and restudy the whole field of the healing arts, and enforce the pure food and drug and insurance laws according to their original intent. If legal means can't be taken to curb these drains on our economic and vital wealth, then means must be made available to educate the public about the truths of these matters.

Finally, some bureaucrats in government want to legislate government controlled medicine. The word government is not synonymous with utopia. Is it not the responsibility of our form of government to guide, regulate, and protect the individual rather than control by legislation? Is medicine to be thrown into the political arena in the guise of social progress? How highly do we value human life and well being?

Society and Medicine

What has the medical profession to offer in its defense? Historically, its achievements have stood the test of time. No matter in what language it is practiced, the basic tenets are the same. In the alleviation of pain and suffering of the human race, including the eradication of disease, it has been the spearhead. It is responsive to scientific truths, utilizing every known fact, tested experimentally to better man's physical and psychical well being. Just as the moon and the planets are within our reach, so too are the horizons of medical achievements, such as the cures of cancer and heart disease, the prolongation of life, et cetera. Towards these ends, all grants for medical research, whether private or governmental, are available only to the medical profession and its allied scientific groups, which work harmoniously together. Have you ever heard of any of the cults receiving such grants?

Medicine has set the highest standards for itself in the spirit of Hippocrates. Surveys have shown that the greater majority of the people are well satisfied with their individual doctor, his fees, and their relationship with him. Why then are certain groups overly and unjustly critical of medicine which is the aggregate of its individual doctors?

It has been accused of resisting social change because it has resisted socialized medicine. Is this true? Why should it want government medicine when it has successfully promoted prepaid medicine with the Blue plans, which are being expanded steadily to encompass everyone? Is this not a private socialized endeavor? Because these plans do not cover everything, and some think the government can do better, does not mean that the accomplishments so far achieved are stopping. Restless "leaders" of various groups want rapid change which can really only come slowly. There is no room for haste and chaos upon which some men thrive. Humanity deserves better than this. This is not a primitive or feudalistic society that

radical and revolutionary measures are necessary to bring about change and progress.

In the biological sciences many theories, without basis in fact, have been proposed. Skepticism is present among men of science until good factual proof is available to substantiate claims or theories. Even many medical pioneers had difficulty convincing their colleagues of scientific truths they had discovered. Truth won't be denied, and they were recognized. By such rigid requirements as the scientific method of investigation, we have been protected from unscientific and biologically harmful proposals by various people who could not convince others of their work. Is this conservatism bad? Perhaps this is the reason why the medical profession seems to be slow to changes in the eyes of various persons and groups. But, examine the record again. What is slow and obstructive in one man's opinion is sure and progressive in another's. There has been no scientific truth that has been rejected by men of medicine. They should not be censured for wanting to be cautious towards sociologic changes which some would lead others to believe will make a Utopia for us. So the Russians were led to believe with communism. They are still trying to sell their Utopia by forceful means.

There is no doubt that the medical profession has been remiss in not selling itself and its achievements, especially in relation to the cults. It has been felt that the public will only buy the best on the market. Any advertising man knows the fallacy of this thinking. Even the best article must be advertised to sell and to point out the advantages it has over its competitor. Even a monoply keeps the public informed of the progress it makes. The public cannot be blamed for its confusion about the "healing arts." We in medicine must keep them better informed of how and why the medical profession has given the most and its best to humanity, especially compared to the cults.

Doctors are Human

Medicine has been placed upon a pedestal. Doctors are thought to be infallible and workers of miracles. As a consequence, any error is magnified out of proportion to its importance. Of the twelve men chosen by Christ to follow Him, one failed to be guided by His spirituality. Admittedly there are a minority in the medical profession who, similarly, are misguided and of poor quality. They are being eradicated as they are found out, and this is a difficult task. It's like trying to get rid of the narcotics racketeers, whom we know are peddling their narcotics, but no one seems to be able to put his finger legally on one of them. Point out the just criticisms. No one wants to be criticized unjustly. However, when the facts verify the claims, corrections will be promptly made. All will be well rewarded for the mutual trust and understanding that should prevail in this great country of free enterprise.

TOTAL HILL-BURTON PROJECTS

Latest report by the USPHS reveals that, up to August 31, 1959, total estimated cost of Hill-Burton hospital projects since the program's inception in 1946 was $3,973,591,569. Of this amount, the Federal share was $1,219,202,569. Cumulatively, the program includes 4,659 projects, of which 3,253 are completed and in operation, 1,180 under construction and 226 in preliminary stages.

Grant approvals in August ranged from $10,000 to help finance a small health center in St. Stephens, South Carolina, to $278,826 for the diagnostic and treatment unit under construction at Woman's Medical College in Philadelphia. Also on the August approval list was a rehabilitation center in Little Rock, Arkansas, all but $45,000 of its estimated cost of $135,000 to be borne by Hill-Burton grant funds.—WRMS

Editorial

THE ATOM IN PEACE AND WAR

The Journal of March, 1952, was devoted to "Treatment in Disaster" and was a special Civil Defense number. Now, seven and a half years later, The Journal devotes its October issue to the atom as encountered in peace as well as in war.

In the intervening period, much has happened of considerable importance. First, thermonuclear energy as an incomprehensible destructive force has become a prime military weapon. Second, the atom has become increasingly important in medicine in an effort to understand physiologic processes, sharpen diagnosis and assist in saving people. Thus, the same modality is concerned in two utterly diametric purposes.

In the articles dealing with the destructive aspects, the present Michigan planning is considered. In addition, the radiation effect on civil populations, formerly thought minimal, is discussed. The articles dealing with peace-time applications include a fine discussion of the use of radioisotopes in medicine; and there is an article which points out the uses of isotopes in industry.

It should be noted that the material in the March, 1952 issue of The Journal is not one whit outmoded. The present series augments the earlier one, and the two issues are worthy companions.

Much has been said and written in the past seven years about Civil Defense. Its importance has been questioned. Evacuation versus shelters for protection has been debated. To some degree, concerned medical people have taken sides. But the decisions must be made, finally, by civil authorities.

The rôle of the doctor is to care for the injured and the ill. It matters not what the final decision may be, since regardless of what it might be, the doctor's job is the same. If the major reliance is on shelters, at some time after an attack all surviving physicians will have to mobilize to care for the population. If evacuation is the major reliance in Civil Defense, and that is all we have at this time, doctors will still need to care for people.

No matter how great the destructive force, there is always a tapering off of its effect the farther one gets from the epicenter. In the peripheral zones, there will be a huge number of injured people whose lives will be saved by the activities of physicians. This cannot be done alone by the physicians in a stricken area. Required will be the compassionate aid of all physicians in the state, mobilized for just that purpose.

Thus, it is necessary for all physicians in Michigan, as well as the paramedical disciplines, to develop awareness of not only what they can do but also how they can discharge their responsibilities in the most efficient manner. We are appalled by the huge numbers who will be killed; but our great concern will be with the huge number who can be saved.

We urge you to read the excellent articles in this issue of The Journal. We urge you to save it for future reference. We would wish that what is written will give you pause for serious reflection and result in a firm determination to play your part—in peace and in war.

Max L. Lichter, M.D.

Editor's Note: The October, National Defense Number of The Journal, has been produced under the help and direction of the Committee on National Defense of the Michigan State Medical Society. Credit for papers and materials and assistance in assembling goes to a subcommittee consisting of C. F. Anderson, M.D., Chairman; Carl Sprunk, M.D., and Rosser L. Mainwaring, M.D. All this was under the guiding supervision of Max L. Lichter, M.D., who also aided in producing the first medical journal devoted to National Defense, over seven years ago.

EDITOR'S COMMENTS

These editorials are being written in the last few days of August, a month before the meeting of the House of Delegates. This much time is needed to prepare the editorials; to submit them to the Publication Committee, officers and advisors, for confirmation and correction; then to get them in type, proof-read, and ready for The Journal. They cannot possibly be distributed to our membership until after the Annual Session, after the meeting of the House of Delegates.

We have always believed that given time and occasion, the medical profession can and will solve correctly any problem revolving around the care of patients.

Harmony

President's Page



Milton A. Darling

President
Michigan State Medical Society

Of necessity, this editorialization is prepared prior to my actual ascendancy to the office of President of the Michigan State Medical Society. Publishing THE JOURNAL is a big job and its deadline is about forty days prior to the date you receive it.

So for me to appear in the October issue as President, we had to fudge a bit and write this in advance. That would be all right except for the fact that a very important meeting is taking place between now and the time you read this.

I refer to the 1959 Annual Session of the House of Delegates. This may be one of the most momentous meetings in the nearly 100 years of MSMS existence, and I have no crystal ball to foretell what will be decided.

Even with no magic mirror, I'll make a little bet with you. I'll say that the Michigan State Medical Society will be doing business at the same stand with the same vigor and with the same harmonious spirit that has characterized its work in the past.

Frankly, I think it's good for our organization occasionally to have differences of opinion within itself. It shows that our members think their state organization is of sufficient importance to have an opinion—and make it count in policy determinations.

Not that *any* organization can permit intemperate actions or hasty decisions to characterize its work simply to satisfy a group—no matter how large or small the group is.

After all, doctors are usually pretty sensible and practical, even judicious, or they wouldn't be doctors very long.

THE M-75 CONTRACT

The M-75 program which has been sold to nearly two million people was based upon the results of surveys, opinion studies, two special reports from the Owen Committee and the Slagle Committee, and a special Medical Care Insurance Committee authorized by the House of Delegates, which confers constantly in the preparation of the program. Consultations were held with the medical groups, subscriber groups, specialists in insurance, legal advisors and the State Insurance Commissioner. This was necessary to determine coverage and very essentially to determine verbage of the contract and procedures of administration. The M-75 contract was a completely new concept in an attempt to give to the public as broad and advanced a pre-paid medical service policy as possible, and to offer the medical profession an acceptable and satisfactory vehicle for dispensing their services to their patients on a voluntary basis—without governmental interference or supervision.

Nothing was included which did not have basic authority in the surveys and instructions from the House of Delegates. The principles involved were established by the House of Delegates. The wording and the detail of necessity had to be worked out by smaller committees, legal advisors, actuaries, the State Insurance Commissioner and the Attorney General.

Realizing that every item could not possibly be covered when the questions would arise, provisions were set up in the program by which the Councilor District Medical Care Insurance Committees could hear complaints or criticisms, and correct them. It seemed like an ideal creation in the face of so many increasing demands for services, for extended coverage, for increased payment to the doctors. This was to substitute for a policy which had been created many years before and was entirely out of date.

When the policy was ready for sale to the public—and even before, some criticisms began to develop. The amount and method of payment was of prime interest. One of the first and most annoying criticisms was to the effect that a specialist, certified by a medical board, would be paid the same rate as any other doctor who rendered that specific service. From the inception of Blue Shield, that question has been raised. The original Blue Shield Board down through the years asked those making such objections to propose a formula by which their demands could be met and also be accepted by all doctors rendering service, and which could be sold to the subscribers. Many suggestions have been made, and in California the original relative value scale actually was four. It was unsatisfactory and is now being rewritten. The Permanent Advisory Committee on Fees was instructed by the House of Delegates to work out a scale suitable for Michigan, but until that time, to use the California scale insofar as it could be fitted to the Michigan program. The Michigan Committee was granted a limited amount of money to accomplish an enormous job.

$7,500 Full Coverage

There was immediate objection to this particular feature by some of our doctors. The survey responses received from doctors seemed to warrant this increase to $7,500 income grouping, but the objections are primarily against the method of determining the income limit rather than the limit itself. It is possible that a different interpretation could be authorized.

The method in the contract was considered the best where the employer designated the contract which his employe should take. It was the intention not to allow high income persons to take low income policies, and the employer had the figures on hand which would automatically classify his employe. M-75 fee schedules were adjusted upward 15% approximately, to accommodate this new income determination system. Another exception might have been made leaving to the doctor the responsibility of determining the income level of his patients. That was avoided, however, because in the early years and in the 1957 doctor survey many of the doctors asked Blue Shield to make that distinction which involved much extra work at headquarters, these policies running into the millions.

Participating Doctors

In its beginning years, Blue Shield was so completely new that insurance companies refused any consideration, and the State Insurance Commissioner demanded that the Medical Society secure a list of "participating" doctors in sufficient number to guarantee that services would be performed. Those who participated agreed to accept what Blue Shield could pay as payment in full. Under these limitations, the Insurance Commissioner insisted that over 80 per cent of our membership sign up

as *participants* before he would allow the policy to be sold. That was an unfortunate word imposed upon us and accepted by the Society in establishing the M-75 program. The House of Delegates considered participation necessary and appointed a committee to secure and report periodically to the membership on its success. No policy was sold until an acceptable number had signed up to participate in the new program. New studies among the doctors had indicated a belief that non-participating doctors were getting undue benefits from the program, without assuming any of the risks.

The two committees appointed by the House of Delegates and the Council made extensive studies, interviewed many groups, and both recommended that participating doctors be paid directly, but that non-participating doctors be paid directly only if they presented an assignment from their patient. This committee appointed by the Council, two-thirds of whose members were also members of the Board of Directors of Blue Shield and intimately familiar with the program, decided to eliminate that recommendation before it was sent to the House of Delegates. The Owen Committee (a committee of the House of Delegates) had been instructed to make its report to the House of Delegates by the 15th of August and they included it.

The "principles" adopted by the House of Delegates contained that item; therefore, a payment provision was made in the new policy. This provision met a storm of objection. The Council had eliminated this item. It would seem now that we could eliminate this word "participate" which was foisted upon us and which has created such embittered objections. The original word which was included in the enabling act developed by the Michigan State Medical Society was "registered."

Section 2 reads:

"Whereby medical care is provided at the expense of such corporation to such persons or groups as shall become subscribers to such plan under contracts which will entitle each such subscriber to definite medical and surgical care, appliances and supplies, by licensed and *registered* doctors of medicine."

Also in Section 10:

"Each doctor of medicine, licensed and registered under Act 237 of the public laws of 1899 as amended, practicing legally in this state shall have the *right to register* with the corporation for general or special medical care as the case may be."

A third mention appears in Section 12:

"A non-profit medical care corporation shall not furnish medical care (or) otherwise than through doctors of medicine, licensed and *registered* under Act No. 237 of the public acts of 1899 as amended."

This particular clause was declared null and void by the Attorney General in the early years "for the public welfare," because the state recognized that osteopaths render medical services.

We suggest that the Michigan State Medical Society officially abandon the word "participation" and adopt the word "registered", also that the State Insurance Commissioner recognize that after approximately twenty years of service, the Michigan State Medical Society and Michigan Medical Service will not default the promised services guaranteed to the people who purchase certificates of prepaid medical care. Under such a ruling, every registering doctor would automatically be a guarantor of the services contracted. If conditions should change and Blue Shield became financially unable to pay for the services promised, the doctors would have to take a pro-rating and be thankful.

Three quarters of the doctors actually in practice now never saw the time when there was no insurance, when nothing was prepaid or budgeted, or when the problem of collecting for services after they were rendered (and sometimes long after) caused a loss of 40 to 50 per cent of the charges. In general, the Blue Shield payments are adequate. For certain items and for certain highly trained specialists, they may be here and there inadequate. The Blue Shield movement has taught people to prepare, to budget, and to make payments with much better grace and at less cost to the doctor. Just this one item of prompt payment is worth all the headache and frustration suffered by the hundreds of pioneers who developed a completely new industry in insurance, and a completely new concept of what the medical doctor owes to his patients—providing the means by which they may obtain his services honestly, honorably, and without embarrassment.

The Senior Citizen Benefit

The Blue Shield Senior Citizen Benefit is a completely new concept of insurance for elderly people, making it possible for them to buy limited but rather adequate medical, surgical and hospital services. A remarkably small payment gives a guarantee of complete coverage to those of low and inadequate income. There have been editorial

comments in newspapers and elsewhere to the effect that the newly authorized program may be too expensive, especially where it involves hospital care. In setting up this program for those over sixty-five, Blue Cross reduced certain lengths of stay and increased the rates in an attempt to cover the known and the anticipated increased utilization. If the sale of these programs should bog down on account of expense to this low income group, it would seem that Blue Cross could adopt a new philosophy in this one contract. It could provide the most intensive care needed for the acutely ill patients for the first few days; after the patient demanded less care, he could be moved on ward service—or partial self service. The patient could be transferred to a special ward under a special bookkeeping arrangement, by which the room and board service would be paid and the costs reduced from the present $32 or more a day to $6, $8, or $10 a day. That one item probably could reduce the cost of this particular service or could extend the number of days by three or four times.

We have mentioned this program before—not in respect to senior citizens—but trying to find an answer to over-crowded conditions and increasing charges. Most of our hospitals have been overcrowded during a large part of the year, necessitating the doctors (even the most renowned of them) to discharge one patient to get in a new acutely sick one.

It would seem that hospital construction in larger or even medium-sized cities could provide detached units where many of the patients who are simply occupying beds could be adequately cared for and helped on the road to recovery. This concept is being accepted now in a few hospitals throughout the land. The American Hospital Association is beginning to recognize that there are actually four stages of hospital care which should be available at different times to patients staying more than just during the acute stage of their illness.

GOVERNOR'S COMMISSION

Late in 1955, Michigan Hospital Service asked the Commissioner of Insurance for a 30 per cent increase in premium rates. This request met with immediate and extended protest. The allowance was delayed, the Commissioner asking for time and further information. The Governor appointed a Commission "to study the operation of these prepayment plans, and to make recommendations regarding methods to reduce cost, expand present coverage, and provide additional benefits to more people in the state" and at the same time study medical costs since they were so intimately involved.

From February 20, 1956, far into September, the papers were full of reports and hearings blasting Blue Cross and Blue Shield, accusing them of every conceivable fault. The Commission at last reported, advising that a thorough and exhaustive research study be made by certain selected and named groups at the University of Michigan. It would have involved $200,000 and would take two years. There was no money and no unanimity of acceptance, fearing prejudice.

The Kellogg Foundation at last appropriated the money ($327,000) after being assured by Blue Cross, Blue Shield, the Michigan Hospital Association and the Michigan State Medical Society that each would completely co-operate, would have confidence in the newly designated Study Committee, and be prepared to accept the findings. This study is now far advanced, and final reports are promised by May, 1960.

Relative Value

The Committee to develop a relative value scale in Michigan is making progress and has almost completed its survey questionnaire for the membership. It is hoped every member, when he receives this questionnaire, will answer it carefully. When that material is assembled, the real work of analysis can be done by already selected statisticians. Until this work is completed, one other element is working in our favor—time. The new M-75 program in all its intricacies needs trial and experience to work out the "bugs." It took over two years in Michigan before the original Blue Shield worked satisfactorily and was accepted by rapidly increasing numbers of subscribers and the great majority of our doctors. Nationally, it took ten years. That is the reason self-correcting features were included in the M-75 program.

Time, confidence in ourselves, and working together can and will solve what seem like insurmountable problems.

"STAND TALL"

One of the earliest admonitions we can remember was "Stand tall". My father was a doctor who was six feet three in height and proud of it. His advice was always "stretch tall at night, in the

morning, always when lying down, instead of doubling up". He also suggested to walk erect with head up and shoulders straight.

At the University, the head of the Physical Education Department, Dr. May, always started the required course for freshmen, "Stand erect, chest out, head back, stand tall." We feared this admonition was passe because so many young high school and college students, even athletes, seem to walk and stand hunched forward as if trying to hide their tallness instead of being proud of it.

We were reassured when one of our Sunday (August 23) papers offered the following:

Posture Vital to Student Health

Everyone agrees that the basis of good looks is good posture. Good posture also unquestionably contributes to good health and well being. The lovliest of clothes will not look good if their wearer is handicapped with posture problems.

Children should be taught to stand up straight, to stretch tall every day, and to do a few simple exercises daily to improve their posture. Walking with head up and spine straight is taught by physical educators and physicians for maintaining nerve health and body health.

Early training in posture can pay off in health benefits in adult years.

BLUE SHIELD AND THE NEW CHALLENGE

The American doctor's eternal struggle to preserve his professional freedom is now being waged in a new arena. Ten years ago, the big question was whether medicine could develop a viable prepayment program by its own voluntary effort, aided by labor, management and local community leaders. The alternative then was the threat of compulsory health insurance, governmentally operated and controlled.

The product of our initiative—and of the people's tremendous response—is the vast Blue Shield-Blue Cross complex, supplemented by a tremendous expansion of the insurance industry's effort in this field.

Both the medically-sponsored nonprofit plans and the commercial insurance programs are based upon the traditional pattern of free choice of physician, fee-for-service, and the private relationship of patient and doctor.

In some segments of our economy today, both labor and management are showing a lively interest in providing medical care through a "closed panel" program, in which free choice would be limited, fee-for-service would be replaced by salaries or capitation payments, and the direct personal responsibility of the physician would be subordinated by collective controls.

The American Medical Association has acknowledged the legitimacy of these alternative programs and the right of the patient to choose the pattern or plan through which he wishes to prepay his medical care. This is realism.

But it is also realistic for us physicians to realize that ultimately we can preserve our traditional pattern of medical service only if our patients find that it meets their vital needs better than any other program.

Our own Blue Shield Plans offer us the best—and only—instrument through which we can control the economy of medicine and determine the shape of medical practice in the future.

But Blue Shield is *only* an instrument. The understanding, vision and leadership required to perfect this instrument—so that it will serve satisfactorily the needs of our patients—must come from us, acting through our county, state and national medical societies.

PUBLIC HOSPITAL BUILDING GAINS

Publicly financed hospital and institutional construction in first half of 1959 had an estimated value of $211 million. This was 19 per cent ahead of the total for corresponding period in 1958. For hospital and institutional projects supported privately, the estimate of $275 million represented a 9 per cent drop from the first half of last year.

The estimates were supplied by Departments of Labor and Commerce in the joint periodic report.—WRMS.

PREPAY HEALTH PLANS HEARING

Long overdue is the Congressional inquiry into premium charges, operating costs and other fiscal aspects of nonprofit health insurance plans which was to have been conducted early in 1959 by a Senate group. But it now appears likely that the hearings will be scheduled in very near future. At the helm will be Senator Wayne Morse (D., Oreg.). Theoretically the investigation will be limited to Blue Shield, Blue Cross, Group Health Association and other programs exclusively in D. C. It is regarded as inevitable, however, that testimony will be taken additionally on plans operated elsewhere.—WRMS.

Obstetrical Brevits

INTRODUCTION

The Maternal Health Committee of the Michigan State Medical Society has selected this title under which we hope to present a series of short editorials, written by members of our Committee and designed to inform readers of THE JOURNAL about our maternal mortality study. Some articles will be designed to express our ideas regarding controversial obstetrical subjects. We shall avoid detailed statistical analysis and yet try to summarize the experience of this committee. All of us reviewing case studies of maternal mortality feel a sincere sympathy for the attending physician confronted with some very confounding problems. We indulge in these studies not for criticism, but with the scientific interest that a pathologist might attack a post-mortem problem. All cases presented or discussed are being carefully reviewed by our committee and by the legal advisor of the State Medical Society so that no identification or embarrassment of the attending physician may ensue following these publications.

The review shows, over all, a tremendous decrease in Michigan's obstetrical deaths. We do, however, have avoidable maternal deaths and as long as preventive measures are possible, we must continue our efforts to improve obstetrical care.

This committee has concerned itself recently with perinatal mortality because it believes that, here again, evaluation of the quality of obstetrical care is expressed. The editorials will mention and define perinatal mortality and its significance.

We wish to urge each County Society to form and activate a Maternal Health Committee. The State Maternal Health Committee and the Michigan State Health Department will be happy to cooperate in the organization of these committees. Our committee has speakers available or will welcome discussion questions to be answered when so desired. We would appreciate suggestions regarding these editorials or any aspect of maternal health in Michigan.

Remember to look for "Obstetrical Brevits".

ECTOPIC PREGNANCY

The Michigan Maternal Mortality Study clearly shows the importance of ectopic pregnancy as a cause of death. Hemorrhage is the leading killer, and ectopic pregnancy is second only to ruptured uterus in this category. Many of these deaths are preventable, for early diagnosis and proper definitive treatment will prevent massive intra-abdominal hemorrhage and irreversible shock.

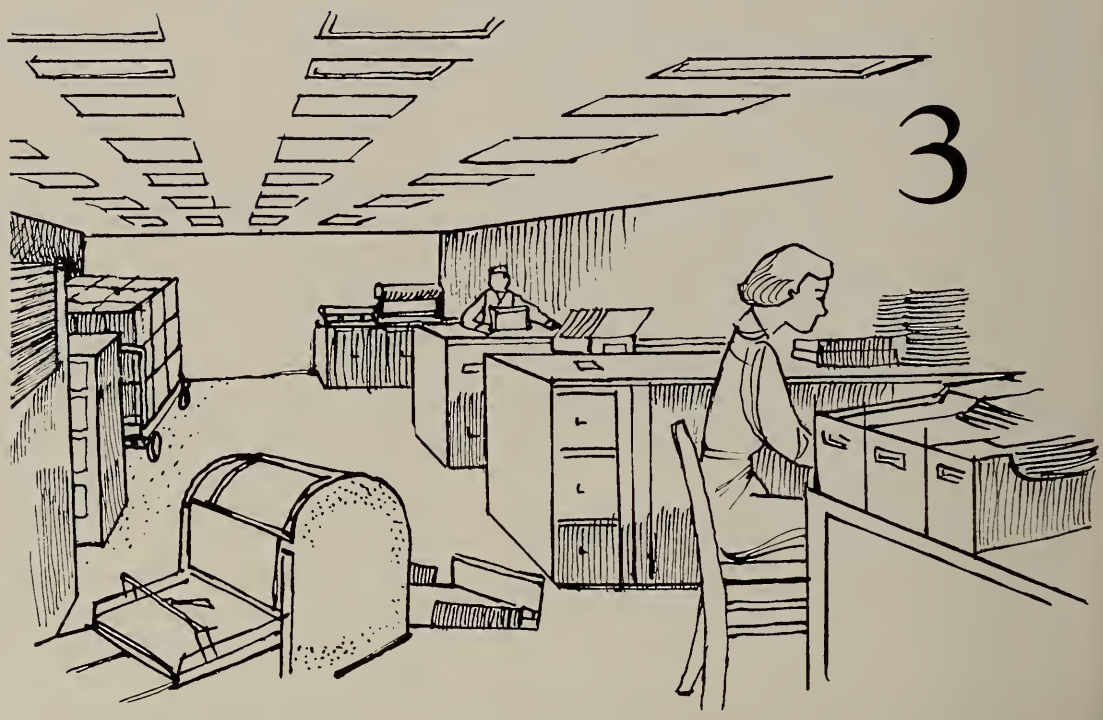
Two important factors in preventability are (1) failure of the patient to consult her doctor before tubal rupture occurs (2) failure on the part of physician to recognize early ectopic symptoms. Prevention of the first factor must depend on public education, advising early consultation in pregnancy. The second preventable factor, failure of recognition by the physician, demands constant thought of ectopic pregnancy. It must be kept constantly in mind in diagnosing female patients, just as appendicitis is a condition to consider in patients of both sexes. With the triad of delayed menstruation, vaginal spotting and lower abdominal pain, a diagnosis of ectopic pregnancy should strongly be suspected. Colpotomy or colpocentesis are important aids in establishing the diagnosis. The treatment, by vaginal or abdominal approach, is strikingly more simple in the unruptured or early ruptured state, as compared to the "belly full of blood", with deep shock, sometimes irreversible.

An example from the files of the Maternal Mortality Study demonstrates factor number one. A patient (Case 579) was admitted to a Michigan hospital in deep shock, not having consulted a physician. Within three and one half hours, she was pronounced dead, dying of massive intra-abdominal hemorrhage and irreversible shock.

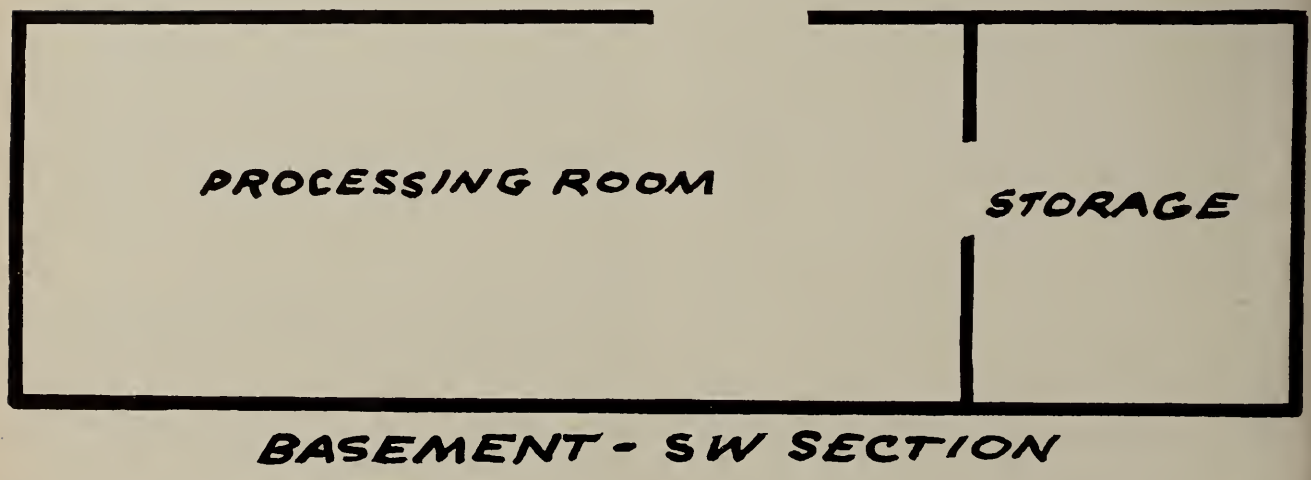
Factor number two may be demonstrated by Case 625 from the files. In this case, a diagnosis of ruptured ectopic pregnancy was made, but surgery was delayed, in the hope for improvement in the patient's condition. Surgery was performed, but too late, for the patient expired in irreversible shock.

We would recommend that every physician refresh his memory on the diagnostic signs and symptoms of ectopic pregnancy, so that these preventable tragedies may be avoided. If a diagnosis is suspected, find out, but do not procrastinate. An unnecessary colpotomy or laparotomy is much better than a dead mother.

The Silent Service
. . . THAT COMMUNICATES

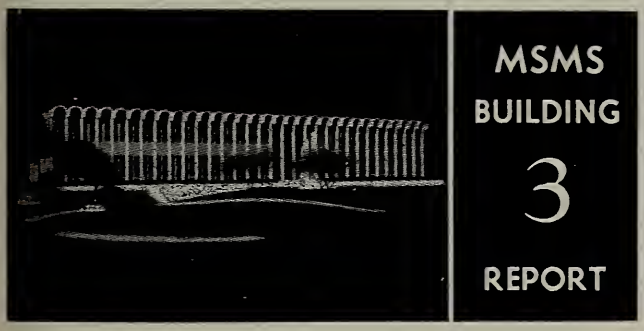


In the future, messages from Michigan State Medical Society will be processed in an efficiency-engineered Processing Room on the lower level of the new MSMS headquarters building.



looking AHEAD

MSMS Committee on Big Look presents its third monthly Building Report



Mechanically, the printed-word communications system of the Michigan State Medical Society is an intricate one. It has to be in order to turn out more than 230,000 pieces of mail each year and mimeograph countless thousands of pages of committee minutes, agenda, reports, news releases and so on. It's a silent service—but it is the Society's major means of passing the word.

In the future this preparing, signing, sealing, stamping, packaging, etc., will be done on the lower level of the new MSMS headquarters building.

The new efficiency-engineered Processing Room contrasts sharply with the cramped facilities in the present Townsend basement, where ceilings are head-banging low and lighting is what you would expect in the cellar of a 100-year-old house.

The maze of equipment needed for rapid and efficient processing of MSMS communications is eye-opening, indeed. Perhaps basic to the whole operation is the addressograph machine with accompanying address-plates for 6,700 MSMS members, 3,500 Auxiliary members, 500 newspapers, radio and TV stations, the Michigan State Medical Assistants Society and others.

In addition, there is the automatic mimeograph machine, collator, Pitney-Bowes postage machine, IBM equipment, folding and stapling machines and a number of smaller auxiliary aids.

Currently, MSMS uses the services of a commercial house for printing of publications requiring more than a thousand copies. However, space in the new Processing Room will be provided for future installation of multigraph or offset printing equipment when work volume reaches the point where this would be economically advantageous.

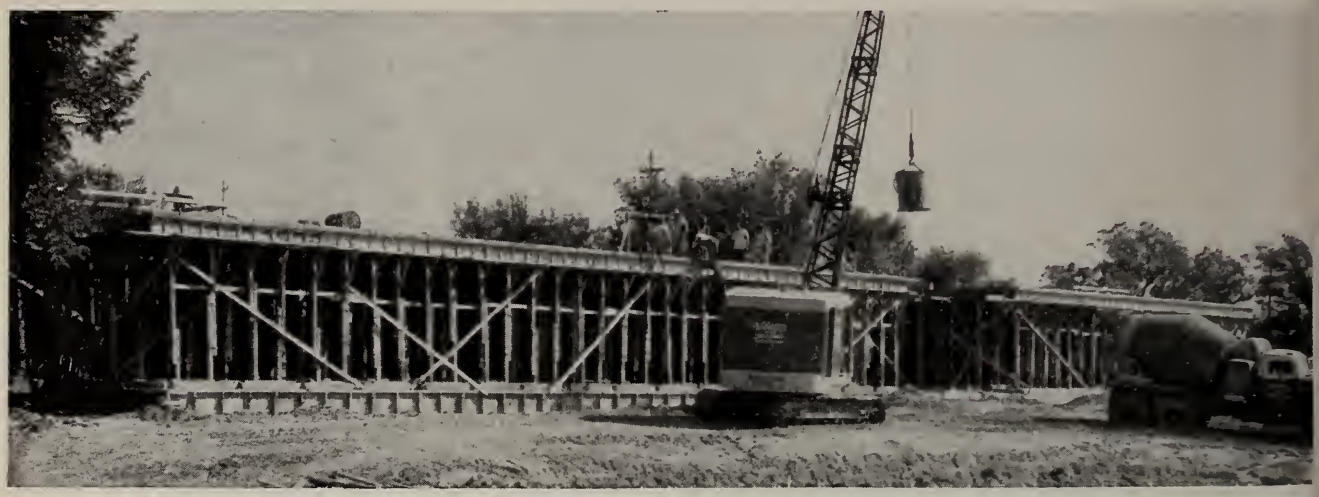
Adjoining the Processing Room is a Literature Storage Room which will contain at the outset, thousands of copies of over 150 different publications ranging from throw-away leaflets to major scientific treatise, all ultimately to be included in mailings to members and the public.

Unheralded, the production and processing employes and facilities provide the vital avenue whereby messages that mold society action reach MSMS members.



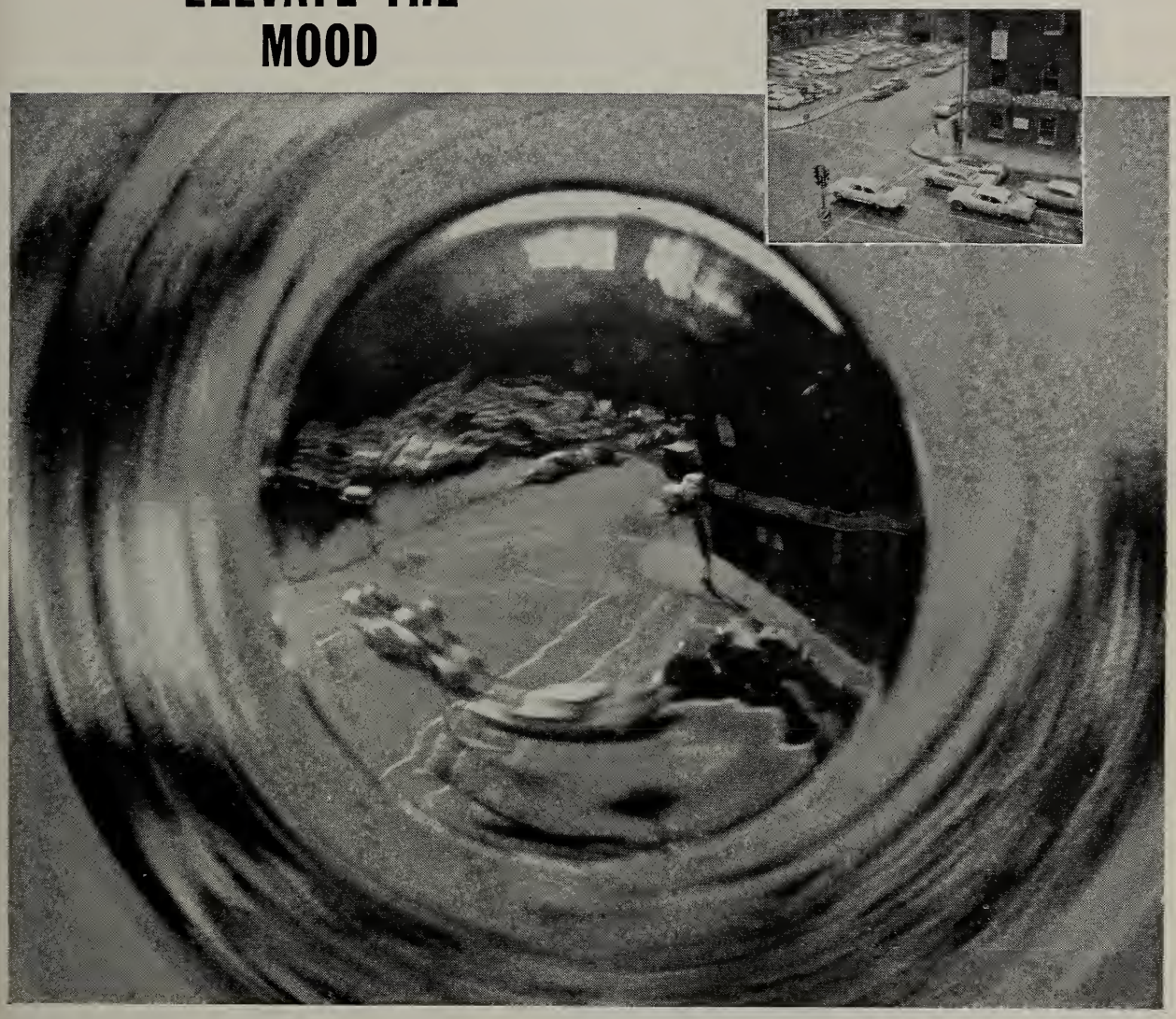
New MSMS Headquarters TAKING SHAPE

Work on the new MSMS headquarters, which began May 18, continues at a rapid pace. These photos, taken in early September, show work progressing as the two-story building rises.





CONTROL VERTIGO, DIZZINESS... AND ELEVATE THE MOOD



with **Dramamine-*D***®

brand of dimenhydrinate with dextro-amphetamine sulfate

"Disturbances of balance resulting from vestibular disorders have long been known to lead to severe anxiety."*

Vertigo—whether of organic or functional origin—tends to leave depression in its wake. Dramamine-*D* is a therapeutic combination designed for treatment of the entire vertigo-reaction syndrome. Each tablet contains dimenhydrinate (50 mg.) to control dizziness, and dextro-amphetamine sulfate (5 mg.) to elevate the mood.

*Pratt, R. T. C., and McKenzie, W.: Anxiety States Following Vestibular Disorders, Lancet *2*:347 (Aug. 16) 1958.

Dramamine® available as tablets, ampuls, liquid, suppositories

Research in the Service of Medicine **SEARLE**

Michigan's Department of Health

Albert E. Heustis, M.D., State Health Commissioner

RABIES SPECIMENS

Our subject this month: The over-ripe carcass of a dead raccoon and the U. S. mails.

Opening mail is a pleasant ritual to which we are all, more or less, addicted. Even though it may regularly contain nothing more than a collection of promotion pieces, an assortment of bills, and a payment or two; the unopened mail always breathes a faint promise.

Consider, then, the effect of opening a parcel only to be greeted by the decomposed remains of a raccoon suspected of having died of rabies. Such an experience can reasonably be called traumatic. The optic and olfactory nerves are severely insulted. The possibility of a recurrence of such an experience casts a pall which takes months to dispel.

Mildly speaking, such a shipment by mail is offensive. It is also illegal. The U. S. Post Office expressly forbids the sending of deceased animals. Yet, every year the Michigan Department of Health receives a certain number of such remains: dog heads, bats, skunks, squirrels, raccoons—through the mail.

It is not simply a matter of legality, either. We are expected to perform certain laboratory tests on these remains. Try finding Negri bodies in a decomposed dog head sometime. It can't be done. The result: you can't get the report for which you went to the trouble of mailing the head.

So, please remember—don't mail dead animals or animal heads. Have them brought in if possible, or send them by express, properly prepared and packaged. Whenever possible, a specimen to be examined for rabies should be delivered directly to the Michigan Department of Health, Division of Laboratories, Old Dewitt Road, Lansing 4, Michigan. When shipping the head, the entire head of the animal should be removed in such a way as not to destroy brain tissue. The head should be severed from the body at approximately the second or third cervical vertebra. Sanitary precautions, such as the use of gloves and careful washing of the hands, should be observed for the protection of the handler in preparing specimens for shipment to the laboratory.

The following information should accompany all heads sent for the examination of rabies: name of sender, address of sender, owner's name and address, animal and breed, date of death, whether killed by an officer, shot or injected, clinical diagnosis, and any exposures (persons bitten). This information should accompany the head either in a letter or on Form F292, Michigan Department of Health. Copies of this form will be sent upon request to the Michigan Department of Health, Lansing 4, Michigan.

Another source of rabies examination is the Detroit Department of Health, Bureau of Laboratories, Herman Kiefer Hospital, Detroit 2, Michigan.

The Railway Express Agency has issued to all agents the following regulations for shipment of specimens:

"1. Rules and regulations governing the shipment of the heads of dogs or other animals by express to laboratories of state boards of health or other laboratories:

"(a) Agents must not accept for transportation the head of a dog, or any other animal, sent to state boards of health for rabies examination unless it shall have been prepared for shipment as hereinafter provided.

"(b) The head of a dog or other animal so shipped must be placed in a tin can or other metal container, which will not permit the leakage of fluids. Such container shall then be placed in a second metal container with ice packed around it; such outside container must be so constructed that it will not permit the leakage of the ice water. DO NOT SHIP MORE THAN ONE HEAD IN A CONTAINER. DO NOT USE CHEMICAL PRESERVATIVE.

"(c) All such packages must be labeled: CAUTION —This Package Contains the Head of a Dog (or name of other animal) Suspected of Having Died of Hydophobia.

"(d) Such shipments tendered on Saturday, which cannot reach destination early enough for delivery on that day and would, therefore, remain in the express office over Sunday, must be refused and shipper requested to pack in ice and hold until Monday so that they can be delivered without delay at destination.

"(e) Require prepayment of charges on shipments of this kind."

If you will follow the above procedures, we at the Michigan Department of Health will be able to promise better service—and you won't run into trouble with the law.

DISBURSES $1,240,251 IN GRANTS

The Smith, Kline & French Foundation disbursed $1,240,251 in grants to science, education and charity during 1957 and 1958, it was disclosed in a report released by the trustees of the organization.

This brought to $2,698,127 the amount given by the Foundation since its inception in December, 1952. The amount disbursed in the last two years almost equals the $1,447,876 which was distributed during the previous four years:

MICHIGAN—$14,000

Kalamazoo College, Kalamazoo	$2,500
Lafayette Clinic, Detroit	5,000
University of Michigan College of Pharmacy, Ann Arbor	1,500
Wayne State University, College of Medicine, Detroit	5,000

make them measure up



Incremin® with iron Syrup

Lysine-Vitamins Lederle

help restore the normal blood picture—iron as ferric pyrophosphate to restore or maintain normal hemoglobin.

boost appetite and energy—vitamins . . . B_1, B_6 and B_{12}.

upgrade low-grade protein—cereals and other low protein favorites of children, upgraded by l-Lysine, work with meat and other top protein to build stronger bodies.

tastes good! Each daily cherry-flavored teaspoonful dose (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.
Alcohol	0.75%

Bottles of 4 and 16 fl. oz.

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Say you saw it in the Journal of the Michigan State Medical Society



KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

In Memoriam

Benzion C. Baron, M.D., fifty-three, Munising physician for twenty years, died August 3, 1959, after a long illness.

Doctor Baron was born in Russia in 1906 and came to the United States at the age of five. He was graduated from the medical school of Northwestern University, Evanston, Illinois, and interned at Los Angeles County Hospital, Los Angeles, California, after which he spent a year in residency at Cook County Hospital, Chicago. After practicing medicine for a short period in Crystal Falls and Wakefield, he came to Munising in 1939.

Doctor Baron served as a major in the Army Medical Corps in World War II. He was a member of the Munising board of education from 1952 to 1955 and was a past president of the Munising Rotary Club.

Arthur C. Blakeley, M.D., seventy-five, of Detroit, died August 20, 1959, after a long illness.

Doctor Blakeley had practiced medicine in Flint for thirty-five years and was a Life Member of the Genesee County Medical Society and the Michigan State Medical Society. He graduated from Ferris Institute and the Detroit College of Medicine in 1908, serving his internship at Harper Hospital, Detroit.

Manley J. Capron, M.D., sixty-nine, Battle Creek practitioner since 1916, died July 26, 1959.

Born in Walden, Colorado, Doctor Capron graduated from University of Illinois Medical School in 1916. Following his graduation, he joined the staff of Battle Creek Sanitarium, remaining there until 1932 when he entered private practice in Battle Creek.

Doctor Capron served in the Navy medical department during World War II, with the rank of commander. He was a past president of the Calhoun County Medical Society. Memberships included Kiwanis, American College of Geriatrics, American Board of Internal Medicine, International College of Internal Medicine, Michigan Society of Internal Medicine. He was also a Fellow of the American College of Physicians.

Wayne A. Cochrane, M.D., eighty-two, Jackson practitioner since 1921, died July 30, 1959.

Doctor Cochrane was born at Onondaga, Michigan, in 1876. He received his medical degree from the University of Michigan in 1908 and interned at Northern Pacific Railroad Hospital at Missoula, Montana. In World War I, he served in the Army Medical Corps with a rank of first lieutenant.

In September, 1958, Doctor Cochrane was given the Fifty Year Award by the Michigan State Medical Society for his more than fifty years in the practice of medicine. He was also a Life Member of MSMS.

Carlton A. Harkness, M.D., seventy-eight, Owosso physician, died August 19, 1959.

(Continued on Page 1686)

Announcing

'ACTIFED'®

Decongestant / Antihistamine

THE POTENTIATED DECONGESTANT



provides symptomatic relief of nasal congestion and rhinorrhea of allergic or infectious origin Many patients whose symptoms are inadequately controlled by decongestants or antihistamines alone respond promptly and favorably to 'ACTIFED'.

'ACTIFED' contains:	in each Tablet	in each tsp. Syrup
'Actidil'® brand Triprolidine Hydrochloride	2.5 mg.	1.25 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	60 mg.	30 mg.

safe and effective for patients of all ages suffering from respiratory tract congestion

DOSAGE

	TABLETS	SYRUP (5 cc. tsp.)	
Adults and older children	1	2	three times daily
Children 4 months to 6 years of age	½	1	
Infants through 3 months	–	½	

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Say you saw it in the Journal of the Michigan State Medical Society

CAMBRIDGE
Cardiac Diagnostic Instruments
ASSURE THE DOCTOR OF

Universally Accepted Records, Fundamental Accuracy, Lifetime Dependability, Minimium Maintenance Expense.



"VERSA-SCRIBE" The Versatile Electrocardiograph

A completely new portable instrument with performance and versatility unsurpassed by any other direct-writing electrocardiograph. Size 5¼" x 10½" x 17", weight 20 lbs.

Multi-Channel Recorders



For physiological research, cardiac catheterization and routine electrocardiography. When used with pertinent transducers, these new Recorders provide simultaneous indication and recording of EKGs EEGs, stethograms and other physiological phenomena. Available in Photographic Recording and Direct Writing Models.



"Simpli-Trol" Portable Model Electrocardiograph

A string galvanometer instrument, measuring 8" x 19" x 10" and weighing 30 lbs. May be arranged for heart sound and pulse recording.

Operating Room Cardioscope



Provides continuous observation of the Electrocardiogram and heart-rate during surgery. Warns of approaching cardiac standstill. Explosion-proof. This cardioscope is a "must" for the modern Operating Room.



"Simpli-Scribe" Direct Writer Electrocardiograph

Provides the Cardiologist, Clinic or Hospital with a portable direct-writing Electrocardiograph of utmost usefulness and accuracy. Size 10⅜" x 10⅜" x 11": weight 28 pounds, complete with all accessories.

Audio-Visual Heart Sound Recorder



Enables simultaneous hearing, seeing and recording heart sounds. Recording may be made on magnetic discs for play-back and viewing at any time.



Pulmonary Function Tester

A completely integrated, easy-to-use instrument for the determination of such functions as Functional Residual Capacity, Tidal Volume, Vital Capacity, Total Lung Capacity, Total Breathing Capacity, Basal Metabolic Rate, etc.

CAMBRIDGE ALSO MAKES EDUCATIONAL CARDIOSCOPES, PLETHYSMOGRAPHS, ELECTROKYMOGRAPHS, RESEARCH pH METERS and instruments for measuring radioactive emission.

SEND FOR DESCRIPTIVE LITERATURE

CAMBRIDGE INSTRUMENT CO., Inc.

Detroit 2, Mich., 7410 Woodward Avenue
Oak Park, Ill., 6605 West North Avenue
Cleveland 11, Ohio, 13000 Triskett Road
New York, N. Y., 3732 Grand Central Terminal
Jenkintown, Pa., 479 Old York Road
Silver Spring, Md., 933 Gist Avenue
Pioneer Manufacturers of the Electrocardiograph

IN MEMORIAM

Carlton A. Harkness

(Continued from Page 1684)

Doctor Harkness graduated from the Chicago Homeopathic Medical College, served as a medical officer in World War I. He specialized in ear, eye, nose and throat work, first practicing in Chicago and Highland Park, Illinois, for more than 40 years before moving to Owosso in 1945 where he had practiced until his recent illness.

He was a Life Member of the Michigan State Medical Society, and a Fellow of the American College of Surgeons.

Leonard L. Henry, M.D., fifty-nine, Lansing, died August 25, 1959, after a long illness.

A native of Toronto, Ontario, Doctor Henry had been a resident of Lansing since 1926. He was a 1923 graduate of the University of Toronto Medical School. During his practice in Lansing he became an authority in the field of industrial medicine. He was a member of the Industrial Medical Association and appeared on several panels at national conventions. Dr. Henry had retired from his practice in 1955 because of ill health.

Kendall Hooper, M.D., forty-six, Flint physician, died July 1, 1959.

Doctor Hooper, a native of Grand Rapids, received his Medical Degree from the University of Michigan, later taking a year of postgraduate study at the University of Pennsylvania. He interned at Butterworth Hospital and was a surgical resident of Blodgett Memorial hospital. In 1940, Doctor Hooper entered the Army Medical Service. Upon his return to civilian life in 1942, he practiced in Flint as an eye, ear, nose and throat specialist and also did plastic surgery.



Dr. Penberthy

Grover C. Penberthy, M.D., seventy-three, Detroit, MSMS past president and leader in civic and medical affairs for more than forty-five years, died suddenly September 2, 1959, of a cerebral thrombosis.

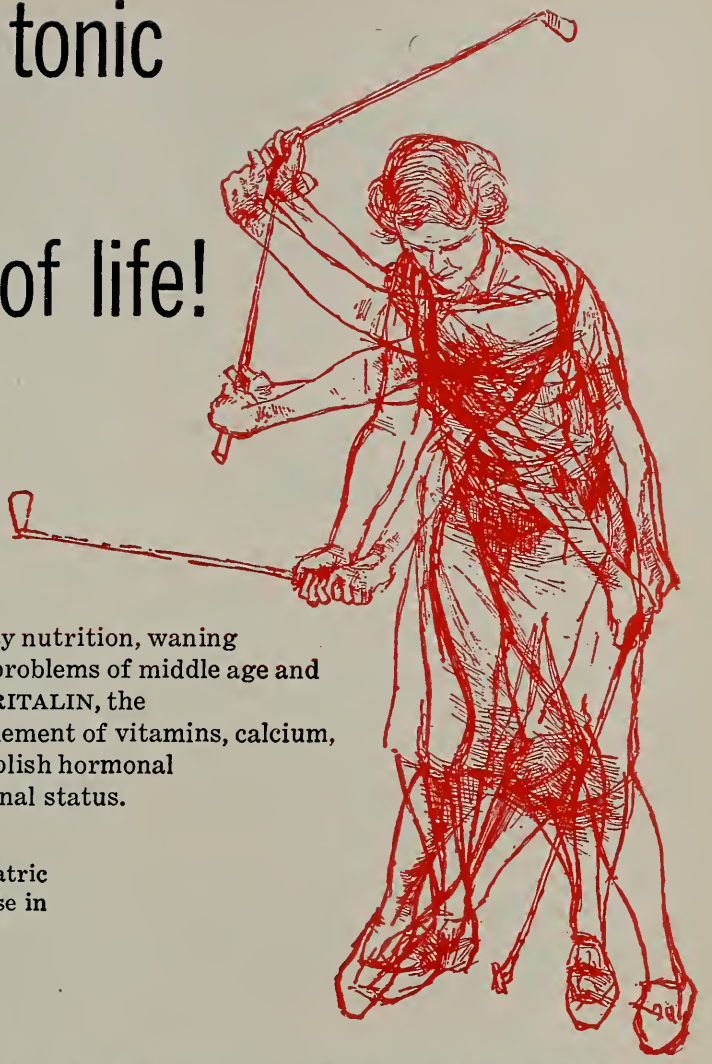
A native of Houghton, Doctor Penberthy received his medical degree from the University of Michigan in 1910. He came to Detroit in 1913 after serving at New York City Hospital. He served in both world wars and received the Legion of Merit in 1946 for his work as a surgical consultant with rank of colonel.

At the time of his death, he was serving as AMA Surgical Section Delegate and chairman of the important MSMS Permanent Advisory Committee on Fees. He served as MSMS President in 1935-36 and was a Life Member of the Society. The Society honored him with a scroll presented in March 1958 for his work in connection with the Michigan Selective Service System.

Dr. Penberthy held the chief surgeon's post at Detroit's Children's Hospital for more than thirty years.

(Continued on Page 1688)

New revitalizing tonic brightens the second half of life!



Ritonic™

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the *safe* central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement . . ."[1] "Patients reported an increase in alertness, vitality and sense of well being."[2]

PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

Ritalin® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B_1)	5 mg.
riboflavin (vitamin B_2)	1 mg.
pyridoxin (vitamin B_6)	2 mg.
vitamin B_{12} activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.

Remember
SERPASIL®
(reserpine CIBA)
for the anxious hypertensive with or without tachycardia

Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.
Supplied: Ritonic CAPSULES; bottles of 100.
References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. *6*: 534 (July) 1958.
2. Bachrach, S.: To be published.
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

CIBA SUMMIT, N. J.

2/2655ME

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

Grover C. Penberthy

(Continued from Page 1686)

The latest of his many civic duties was as a member of the Detroit City Plan Commission since 1957.

He was a former chief of general surgery at Harper Hospital and since 1950 had been senior surgeon on the consulting staff. He was a consulting surgeon at several other hospitals. He was professor of clinical surgery at Wayne State University and since 1920 had been a non-resident lecturer in surgery at the University of Michigan.

He belonged to a dozen medical and surgical societies and organizations and had served as president of most of them. He was a Fellow of the American College of Surgeons, member of the American Surgical Association, founder and first president of the Michigan Society for Mental Health, past president of the Michigan Society for Mental Hygiene, the Central Surgical Association and the Detroit Academy of Surgery, and a founder member of the American Board of Surgery.

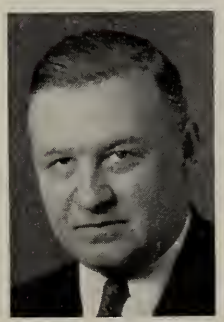
Fred A. Reetz, M.D., seventy-six, Shelby physician, died August 17, 1959, after a long illness.

Doctor Reetz received his medical degree at Hahnemann Medical College, Chicago, in 1905, following which he practiced in Muskegon for four years before beginning practice in Shelby.

He was an Associate member of the Oceana County Medical Society and the Michigan State Medical Society.

Philip P. Sayre, M.D., seventy-three, Onsted physician, died August 13, 1959, after a long illness.

A native of Buffalo, New York, he graduated from the University of Michigan Medical School in 1914, and practiced in Albion, St. Louis, Missouri, and South Haven, before coming to Onsted in 1945. He was a Life Member of the Lenawee County Medical Society and MSMS, and a past president of the Van Buren County Medical Society.



Dr. Shook

Ralph W. Shook, M.D., fifty-six, Kalamazoo, MSMS Councilor and Chairman of its Finance Committee, died suddenly, August 9, 1959, at Munson Hospital, Traverse City, after a heart attack suffered at his summer home on Rennie Lake near Kingsley.

Born at Fulton, Michigan, in 1903, he was a 1927 graduate of the University of Michigan Medical School. He served his internship at Grace Hospital, Detroit and practiced in Lake City before beginning practice in Kalamazoo in 1929. He served as Kalamazoo County physician for three years in the early 1930's.

Doctor Shook served in the Army Medical Corps in World War II, attaining the rank of lieutenant colonel. He was a past president of the Kalamazoo Academy of Medicine and a member of the Fulton Masonic Lodge.

(Continued on Page 1690)

Say you saw it in the Journal of the Michigan State Medical Society

IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION
IN REFRACTORY CONSTIPATION

natural bowel corrective

Senokot®

STANDARDIZED CONCENTRATE OF TOTAL ACTIVE PRINCIPLES OF CASSIA ACUTIFOLIA PODS PURDUE FREDERICK

TABLETS/GRANULES

REHABILITATES THE CONSTIPATED PATIENT— HELPS RESTORE NORMAL BOWEL TONE, RHYTHM, AND SENSITIVITY.

SUPPLIED: TABLETS: Small and easy to swallow, in bottles of 100.
GRANULES: Cocoa-flavored, in 8 and 4 ounce canisters.

PF *The Purdue Frederick Company* DEDICATED TO PHYSICIAN AND PATIENT SINCE 1892
NEW YORK 14, N.Y. | TORONTO 1, ONTARIO

© Copyright 1959, The Purdue Frederick Company

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

MEDICAL ARTS

SUPPLY COMPANY
311 State Street, S.E. Phone GL 9-9413

PHARMACY
20-24 Sheldon, S.E. Phone GL 6-9661

DRIVE-UP PHARMACY
311 State Street, S.E. Phone GL 9-8294

Grand Rapids, Michigan

Ralph W. Shook

(Continued from Page 1688)

MSMS Councilor from the Fourth District for the past eight years, Doctor Shook had served as Chairman of the Society's Finance Committee since 1954. In September, 1958, he was elected an Alternate Delegate to the American Medical Association from the Michigan State Medical Society.



DR. STILES

Frank Stiles, Jr., M.D., fifty-seven, widely known Lansing dermatologist who was active in MSMS committee affairs, died suddenly August 23, 1959, of a cerebral attack.

A member of the MSMS Committee on Venereal Disease Control for many years, he had served as its chairman since 1956.

An active member of the Ingham County Medical Society, Doctor Stiles also belonged to the Central States Dermatological Society and the Detroit Dermatological Society, of which he was a past president, and Phi Rho Sigma, medical fraternity.

Other memberships included the American Academy of Dermatology, the University of Michigan Club, Lansing City Club, and the Rotary Club.

Born in Chicago in 1902, Doctor Stiles received his medical degree from the University of Michigan in 1930 and interned at University Hospital. During World War II, he served in the navy from 1942-46.

Edwin P. Vary, M.D., fifty-four, prominent Flint surgeon, died August 2, 1959, of a heart attack.

A native of Battle Creek, Doctor Vary received his medical degree from the University of Michigan in 1903, and interned at Robert Packer Hospital, Sayre, Pennsylvania.

Doctor Vary began practice in Flint in 1938 and was chief of the department of surgery at McLaren General Hospital.

Doctor Vary served in the Navy during World War II, being discharged in 1946 with the rank of commander. In 1945, he received a citation for his "outstanding work in treating casualties during the attack on Guam."

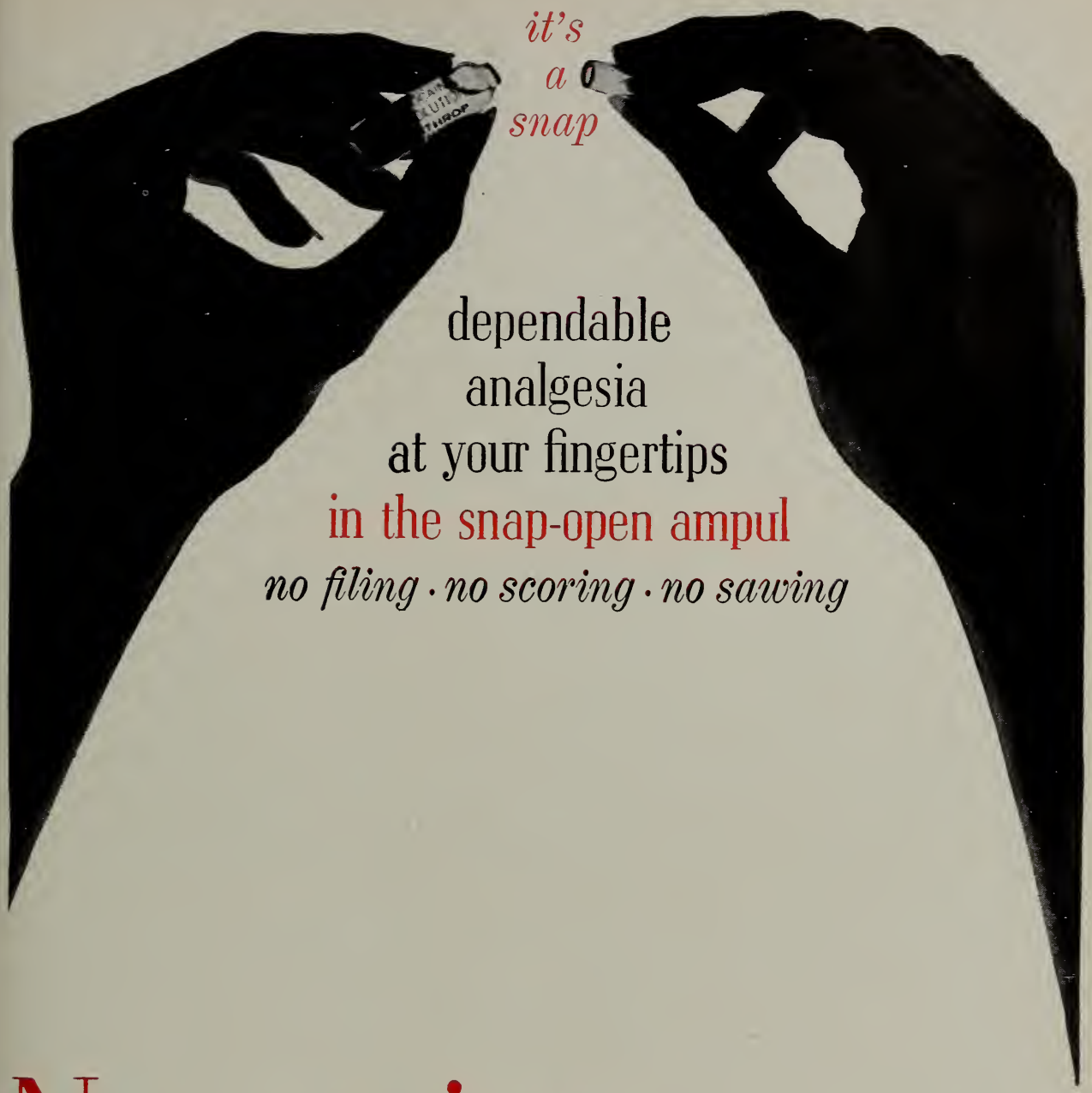
He was a fellow of the American College of Surgeons, a member of the Central Surgical Association and a Diplomate of the American Board of Surgeons.

Carl W. Uthoff, M.D., forty-two, Grand Rapids obstetrician, died unexpectedly of a heart attack August 17, 1959.

Born in Genoa, Ohio, Doctor Uthoff graduated from the University of Michigan and Western Reserve Medical School in Cleveland, Ohio. A member of Kent County Medical Society, he was on the staff of Butterworth Hospital.

MSMS owns property, pays taxes, buys equipment, sells services.

Say you saw it in the Journal of the Michigan State Medical Society



it's a snap

dependable
analgesia
at your fingertips
in the snap-open ampul

no filing · no scoring · no sawing

Novocain®

PIONEER BRAND OF PROCAINE HYDROCHLORIDE

the local anesthetic with universal acceptance

Novocain 1%, 2%, 10%, 20% Solutions with or without vasoconstrictors.
Also available: Multiple Dose Vials with dual purpose caps for withdrawal by needle or pouring.

Winthrop LABORATORIES, NEW YORK 18, N.Y.

Say you saw it in the Journal of the Michigan State Medical Society



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Harry M. Nelson, M.D., Detroit, is the author of an article "The Cytology Program of the American Cancer Society" in the *ACTA Union Internationale Contre Le Cancer,* Vol. XV, No. 2, 1959.

Samuel J. Levin, M.D., Detroit, is the author of a chapter on "Hyposensitizing (Immunizing) Inoculations in Hay Fever and Asthma" in *Pediatric Clinics of North America,* August, 1959.

H. M. Nelson, M.D., O. A. Brines, M.D., Gerald Wilson, M.D., E. R. Jennings, M.D., and **Esther Dale, M.D.,** all of Detroit, are authors of an article, "Uterine Cytology—'False-Positive' Report," which appeared in JAMA, August 15, 1959.

Charles W. Porter, M.A., Elizabeth L. Clark, B.S., and **George E. Block, M.D.,** Ann Arbor, are the authors of an article entitled "Bioassay and Chromatographic Methods of Urinary Estrogen Determination in Mammary Cancer Patients: Their Application to Ablative Therapy," published in the *University of Michigan Medical Bulletin,* June, 1959.

Harold F. Falls, M.D., Ann Arbor, is the author of an article entitled "Ocular Manifestations of the Chronic Renal Tubular Insufficiency Syndromes," published in *A.M.A. Archives of Ophthalmology,* August, 1959.

John H. Ganschow, M.D., Detroit, is the author of an article entitled "An Eye Conservation Program for Large and Small Industry," published in the *Journal of the Iowa State Medical Society,* August, 1959.

Richard C. Schneider, M.D., Jack J. Williams, M.D., and **Leopold Liss, M.D.,** Ann Arbor, are the authors of an article entitled "Fatality after Injection of Sclerosing Agent to Precipitate Fibro-Osseous Proliferation," published in the *Journal of the American Medical Association,* August 8, 1959.

John W. Keyes, M.D., Gerald M. Breneman, M.D., and **Hernan Alvarez, Jr., M.D.,** Detroit, are the authors of an article entitled "Chlorothiazide and Hydrochlorothiazide in the Treatment of Congestive Heart Failure," published in *International Record of Medicine,* August, 1959.

Fred W. Whitehouse, M.D., and **Henry G. Bryan, M.D.,** Detroit, are the authors of an article entitled "Glucagon for Treatment of Insulin Hypoglycemia," published in *American Practitioner and Digest of Treatment,* August, 1959.

E. Thurston Thieme, M.D., Ann Arbor, is the author of an article entitled "The Management of Acute Cholecystitis," published in *G.P.,* August, 1959.

Kirk Cammack, M.D., Boise, Idaho; **Richard L. Rapport, M.D., Joseph Paul, M.D.** and **W. Claire Baird, M.D.,** Flint, are the authors of an article entitled "Deceleration Injuries of the Thoracic Aorta," read at the 16th annual meeting of the Central Surgical Association, Montreal, February 1959, and published in *A.M.A. Archives of Surgery,* August, 1959.

D. Emerick Szilagyi, M.D., Roger F. Smith, M.D. and **John G. Whitcomb, M.D.,** Detroit, read at the 16th annual meeting of the Central Surgical Association, Montreal, February, 1959, and published in *A.M.A. Archives of Surgery,* August, 1959.

Homer M. Smathers, M.D., and **Ward M. Smathers, M.D.,** Detroit, are the authors of an article entitled "Carotid Artery Occlusion," read at the 16th annual meeting of the Central Surgical Association, Montreal, February, 1959, and published in *A.M.A. Archives of Surgery,* August, 1959.

Robert E. L. Berry, M.D., Ann Arbor, and **Lewis A. Schmidt III, M.D.,** Chattanooga, Tennessee, are the authors of an article entitled "The Surgical and Nonsurgical Treatment of Gastric Ulcer," read at the 16th annual meeting of the Central Surgical Association, Montreal, February, 1959, and published in *A.M.A. Archives of Surgery,* August, 1959.

Donald R. Korst, M.D., Ann Arbor, is the author of an article entitled "Agranulocytosis Caused by Phenothiazine Derivatives," read before the regional meeting of the American College of Physicians, Traverse City, September, 1958, and published in the *Journal of the American Medical Association,* August 22, 1959.

J. E. Croushore, M.D., is the author of an article entitled "Tympanoplasty for Chronic Ear Infections," published in *The Journal of the Michigan State Medical Society,* and condensed in *E.E.N.T. Digest,* July, 1959.

W. S. Reveno, M.D., Detroit, is the author of an article entitled "Gleanings—1959 Meeting, American Goiter Association," published in *Harper Hospital Bulletin,* May-June, 1959.

Frank Mac Kenzie, M.D., Detroit, is the author of an article entitled "Harper Hospital Profiles. III Dr. Angus McLean," published in *Harper Hospital Bulletin,* May-June, 1959.

Elmer R. Jennings, M.D., Esther Dale, M.D., Harry M. Nelson, M.D., Osborne A. Brines, M.D., and **Gerald Wilson, M.D.,** Detroit, are the authors of an article entitled "Uterine Cytology—The 'False-Positive' Report," published in the *Journal of the American Medical Association,* August 15, 1959.

Andrew F. Caughey, Jr., M.D., Detroit, is the author of an article entitled "Mumps During Pregnancy," pub-

(Continued on Page 1696)



it started as a "cold"...

to prevent the sequelae of u.r.i. ... and relieve the symptom complex

ACHROCIDIN®

Tetracycline-Antihistamine-Analgesic Compound Lederle

Pneumonitis, otitis, tonsillitis, adenitis, sinusitis or bronchitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.[1] To protect and relieve the "cold" patient...ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP (lemon-lime flavored), caffeine-free.

1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 1692)

lished in the *American Journal of Obstetrics and Gynecology,* June, 1959.

* * *

Alma J. Murphy, Ph.D., George H. Koepke, M.D., Edwin M. Smith, M.D. and **David G. Dickinson, M.D.,** Ann Arbor, are the authors of an article entitled "Sequence of Action of the Diaphragm and Intercostal Muscles During Respiration. II: Expiration," read at the thirty-sixth annual session of the American Congress of Physical Medicine and Rehabilitation, Philadelphia, August 27, 1958, and published in *Archives of Physical Medicine and Rehabilitation,* August, 1959.

* * *



Ian M. Thompson, M.D., assistant professor of surgery at The University of Michigan Medical Center, has been appointed chairman of the Department of Urology at the University of Missouri Medical School in Columbia, Missouri.

Dr. Thompson assumed his new position in September.

He received his M.D. degree from New York Medical College and practiced in Louisiana and Texas before coming to Michigan in 1957.

His home is at 2104 Copley Avenue, Ann Arbor.

First Newman Fellowship.—Elizabeth W. Edmond of Clio, Michigan, has been named the first student in The University of Michigan Medical School to receive a new tuition scholarship established by Max K. Newman, M.D., of Detroit. The award harks back to Dr. Newman's financial difficulties in the depression years when he had to seek scholarship aid to complete his senior year of medical training. The scholarship pays tuition for a senior who has shown major interest in physical medicine. Miss Edmond was selected by a faculty committee of the medical school.

* * *

Compilation of the history of the Army Medical Service's role in internal medicine during World War II will be directed by a board of fifteen prominent civilian physicians and two military doctors, serving *ex officio.*

Garfield G. Duncan, M.D., internal medicine specialist at Jefferson Medical College, Philadelphia, heads the Advisory Editorial Board recently re-established by the Army Surgeon General's Office.

Under the editorial direction of W. Paul Havens, Jr., M.D., internal medicine specialist on the faculty of the same institution, the board will appraise and revise existing material and include any new material relevant to the history of internal medicine during World War II.

* * *

Pediatric Fellowships.—Grants providing for postgraduate pediatric studies will be awarded again in 1960 by Wyeth Laboratories, it has been announced by Philip

(Continued on Page 1698)

2 year guarantee

FULL SIZE

superior AC rejection

19 other engineering achievements

SPEEDS: 25 / 50 mm/sec.

only the new

BIRTCHER Model 300 ELECTROCARDIOGRAPH

has all these features

One hand operation

Of course, the Birtcher has and always did have: Both 25 and 50mm paper speeds; A 2 year guarantee; Automatic continuous timing; Automatic blanking between leads; The fastest, simplest paper loading yet conceived; Full width paper; Full size trace; Linearity of base line at any point on the trace; Higher AC rejection; Accuracy beyond question, and now . . .

The new LEVELTEMP® styli

NOBLE-BLACKMER, INC.

267 W. Michigan Ave. Jackson, Mich.

Now—All cold symptoms can be controlled



Tussagesic

timed-release *tablets*

Controls congestion

with Triaminic,[1,2,3] the leading oral nasal decongestant.

Controls aches and fever

with well-tolerated APAP, non-addictive analgetic[4] and excellent antipyretic.[5]

Each TUSSAGESIC Tablet provides:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

References: 1. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Bonica, J. J.: in Drugs of Choice, Mosby, St. Louis, 1958, p. 272. 5. Dascomb, H. E.: in Current Therapy, Saunders, Phila., 1958, p.78. 6. Bickerman, H. A.: in Drugs of Choice, Mosby, St. Louis, 1958, p.547.

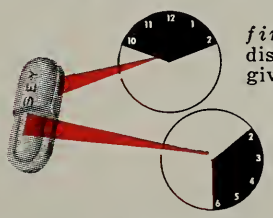
Controls cough centrally

with non-narcotic Dormethan, possessing "amply demonstrated" antitussive activity,[6] as effective as codeine.

Liquefies tenacious mucus

with terpin hydrate, classic expectorant.

Prompt and prolonged relief because of this special "timed release" design:



first—the outer layer dissolves within minutes to give 3 to 4 hours of relief

then—the inner core releases its ingredients to sustain relief for 3 to 4 more hours

Dosage: One tablet in the morning, midafternoon and at bedtime. Pediatric dosage chart for Tussagesic Suspension available on request.

TUSSAGESIC SUSPENSION provides palatability and convenience which make it especially attractive to children and other patients who prefer liquid medication.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

(Continued from Page 1696)

S. Barba, M.D., past president of the American Academy of Pediatrics and chairman of the fellowship selection committee.

The Philadelphia pharmaceutical manufacturing company will award 20 two-year grants, each carrying an annual stipend of $2,400. Applications for the fellowships must be submitted by November 30, 1959, and the grants will be effective on July 1, 1960.

Candidates for the pediatric fellowships may include interns, physicians who have recently completed their internship, military service or a U. S. Public Health Service Tour, and research fellows. All recipients must be citizens of the United States or Canada.

Additional information and application forms may be obtained from Dr. Barba at the University of Pennsylvania School of Medicine, Philadelphia, Pa.

* * *

New Index Medicus System.—The American Medical Association and the United States Public Health Services' National Library of Medicine in Washington announced jointly today that. beginning Jan. 1, 1960, they will institute a new program for the indexing of medical literature which is estimated at 220,000 articles annually.

The new system, which calls for mechanizing the composition of the index itself, will not only speed up the reference service to physicians, but it will also be less costly.

New Chairman at Wayne.—Richard J. Bing, M.D., one of the outstanding contributors to the field of cardiovascular physiology, has been appointed William H. McGregor Professor of Internal Medicine of Wayne State University. He will act as chairman of the Department of Medicine, effective September 1.

Dr. Bing held a professorship in medicine at Washington University, St. Louis. He was also director of the Washington University Medical Service, Veterans Hospital.

The department chairmanship has been vacant since 1958, when Dr. Gordon Myers resigned so that he could devote full energies to teaching and research. Dr. Myers, chairman for twenty-one years, has headed the University service in Internal Medicine at Harper Hospital.

Dr. Bing is a native of Bavaria. He attended the Universities of Vienna and Berlin, received an M.D. degree from the University of Munich in 1934 and another M.D. degree from University of Bern in 1936.

He was a fellow in the Carlsberg Institute, Copenhagen, from 1936 to 1937. The following year, he was awarded a fellowship in the Rockefeller Institute, New York. From 1938 to 1941, he interned in surgery in Presbyterian Hospital and then became an instructor in physiology at Columbia University College of Physicians and Surgeons.

Dr. Bing became an instructor in medicine in Johns Hopkins Medical School in 1943 and that year he was made a Lt. Colonel in the Army Medical Corps.

(Continued on Page 1700)



If she needs nutritional support... she deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

Lederle



WHEN THE BABY HAS COLIC "...AND

SCREAMS

WITH THE OUTRAGED VIGOR OF A WOUNDED TIGER AND PUNCTUATES HIS SHRIEKS WITH FLATUS..."*

Skopyl®

Methyl Scopolamine Nitrate

FOR THE TREATMENT OF INFANT COLIC

Easy Administration: Just **one** or **two** drops of Skopyl under the tongue, 20-30 minutes before each feeding — or 3 drops for an acute attack of colic.

Fast Action: The rapid absorption of Skopyl into the blood stream via the oral or sublingual route often gives immediate and dramatic relief of acute abdominal pain characteristic of infant colic.

Action and Safety: The main effect of Skopyl is peripheral. It has a particularly depressant effect on the tonus and motility of smooth musculature of the gastrointestinal tract. Because of Skopyl's high degree of selective action and favorable therapeutic index, the recommended small volume dose can generally be given with a minimum incidence of side effects.

*Editorial: New England J. Med. 260:246 (Jan. 29) 1959

Precautions: Fluid balance should be restored in dehydrated infants or those with oliguria before beginning treatment with Skopyl. **Indications:** Colic (paroxysmal fussing, infantile dyspepsia, irritable crying), infantile vomiting, infantile diarrhea, pyloric spasm. **Available:** 5 cc. dropper bottle. One drop=0.6 mg.; 40 drops=1 cc. **Pharmacia Laboratories, Inc.,** 501 Fifth Avenue, New York 17, N.Y.

(Continued from Page 1698)

His memberships are: American College of Chest Physicians, American College of Cardiology, American College of Physicians, American Federation of Clinical Research, American Medical Association, American Physiological Society, Association of American Physicians, Honorary Member of Harvey Society, Society for Experimental Biology and Medicine, Society for Internal Medicine, Society for Clinical Investigation, Royal Society of Medicine (Affiliate).

Dr. Bing is married to the former Mary A. Whipple. They have four children.

* * *

Medical Civil Defense Conference.—The Council on National Defense, American Medical Association, is sponsoring the tenth annual conference of the County Medical Societies Civil Defense Organization. The conference will be held at the Morrison Hotel, Chicago, Illinois, on November 7-8, 1959.

These yearly conferences are planned to inform and otherwise assist medical and health personnel for their respective roles in disasters. Conferees have the opportunity (1) to participate in workshop sessions concerning medical preparedness to cope with disasters, (2) to discuss and exchange information dealing with emergency medical services, (3) to be informed on the availability of pamphlets and articles devoted to the medical and health aspects of civil defense, and (4) to hear outstanding speakers report on appropriate civil defense and disaster topics.

A highlight of the conference will be a talk by Congressman Melvin Price on the environmental and biological effects of nuclear warfare. Recent hearings conducted by a Joint Congressional Atomic Energy Subcommittee assumed that 224 U. S. "targets" were hit by 263 hydrogen bombs with a force of 1,446 megatons, or the equivalent of a billion, 446 million tons of TNT. The hypothetical attack produced 48,900,000 deaths. In spite of the tremendous number of deaths and staggering number of casualties created by the attack, the one-week hearings ended with the conclusion that the nation could recover from such an attack and that protection measures are feasible and could reduce the casualties considerably. Congressman Price is a member of the Joint AEC Committee.

Those desiring additional information about the conference are requested to contact Mr. Frank W. Barton, Secretary, Council on National Defense, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

* * *

Emergency March of Dimes.—Michigan Chapters of The National Foundation as a result of the epidemic in Wayne County and other areas in Michigan in 1958, owe over $1,000,000 in unpaid hospital and medical bills. *No funds* are available to take care of those who

(Continued on Page 1702)



he deserves

GEVRAL®

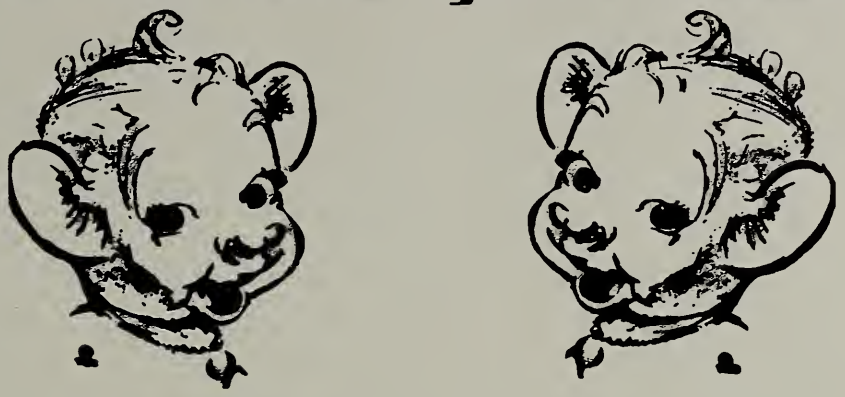
Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Give me two good reasons



why Buttermilk is a dietary food!

LOW CALORIES, HIGH ESSENTIAL NUTRITION

One glass, or ½ pint, of plain Buttermilk (uncreamed) contains only 87 calories; a whole quart, only 350. Yet uncreamed buttermilk contains all of whole milk's complete proteins, B vitamins, and minerals. One good dietary reason!

BENEFICIAL BACTERIAL-ENZYME ACTION

For many years Buttermilk has been prescribed as an aid in promoting healthful bacterial balance in the digestive tract, especially the lower tract. Second good dietary reason!



and Borden's is extra good Buttermilk!

Making buttermilk sounds simple, but certainly isn't simple at all! Borden's Buttermilk has a deserved reputation for fresh, sweet wholesome flavor.

Borden's

MICHIGAN MILK DIVISION

(Continued from Page 1700)

are now in iron lungs or severely crippled and in need of our assistance.

* * *

Hospital Planning Abstract Service.—Starting in October, the American Hospital Association will offer the Hospital Planning Abstract Service to provide a concise summary of what is appearing in journals, in reports or in other publications. The hospital field is alive with change requiring altered patterns of medical practice, of hospital function, of capital financing, of design and construction, of community planning. The twin pressures of expanded medical research and rising costs of hospital operation are causing the whole hospital field to make an almost constant re-evaluation of programs. The Abstract Service will provide material to help in such re-evaluations. It will make sure that "hospital administrators, trustees, physicians, architects, consultants, and directors of hospital associations and state hospital facilities programs can keep informed of what is happening in other communities, or on the national scene."

* * *

Michigan Doctors.—Four Michigan doctors have come up with a sure-fire bedside medical test—blowing out a lighted book match.

This simple huff-and-puff technique can be used to measure the seriousness of blockage in the airway of a patient suffering from pulmonary diseases.

These patients usually present signs of airway obstruction by wheezing and taking a long time to breathe air out of their lungs, the team explains in the *Journal of the American Medical Association.*

But these bedside signs do not give the doctor the necessary information required to determine the patient's respiratory function. It is usually evaluated by two rather complicated tests that require the use of mechanical devices which cannot always be brought to a bedside.

The doctors gave the match test to 126 patients with various pulmonary diseases. Then they gave the two standard tests, correlating the results of the three tests.

The test itself consists of holding a lighted book match six inches from the mouth of the patient. It is important that the patient blow with his mouth wide open, not with pursed lips, the doctor said.

This simple test proved to be a favorable technique when compared to the results of the two standard tests. It should be used as a screening procedure, indicating whether or not more specific tests of pulmonary function should be performed, they conclude.

The doctors are Thomas H. Snider, John P. Stevens, Freeman M. Wilner and Benjamin M. Lewis of Dearborn's Veterans Administration hospital and Wayne State university college of medicine, Detroit.—*Lansing State Journal,* August 4, 1959.

* * *

Medical Records Week.—Gov. G. Mennen Williams proclaimed September 14-18 as Medical Records Week

(Continued on Page 1710)



they deserve

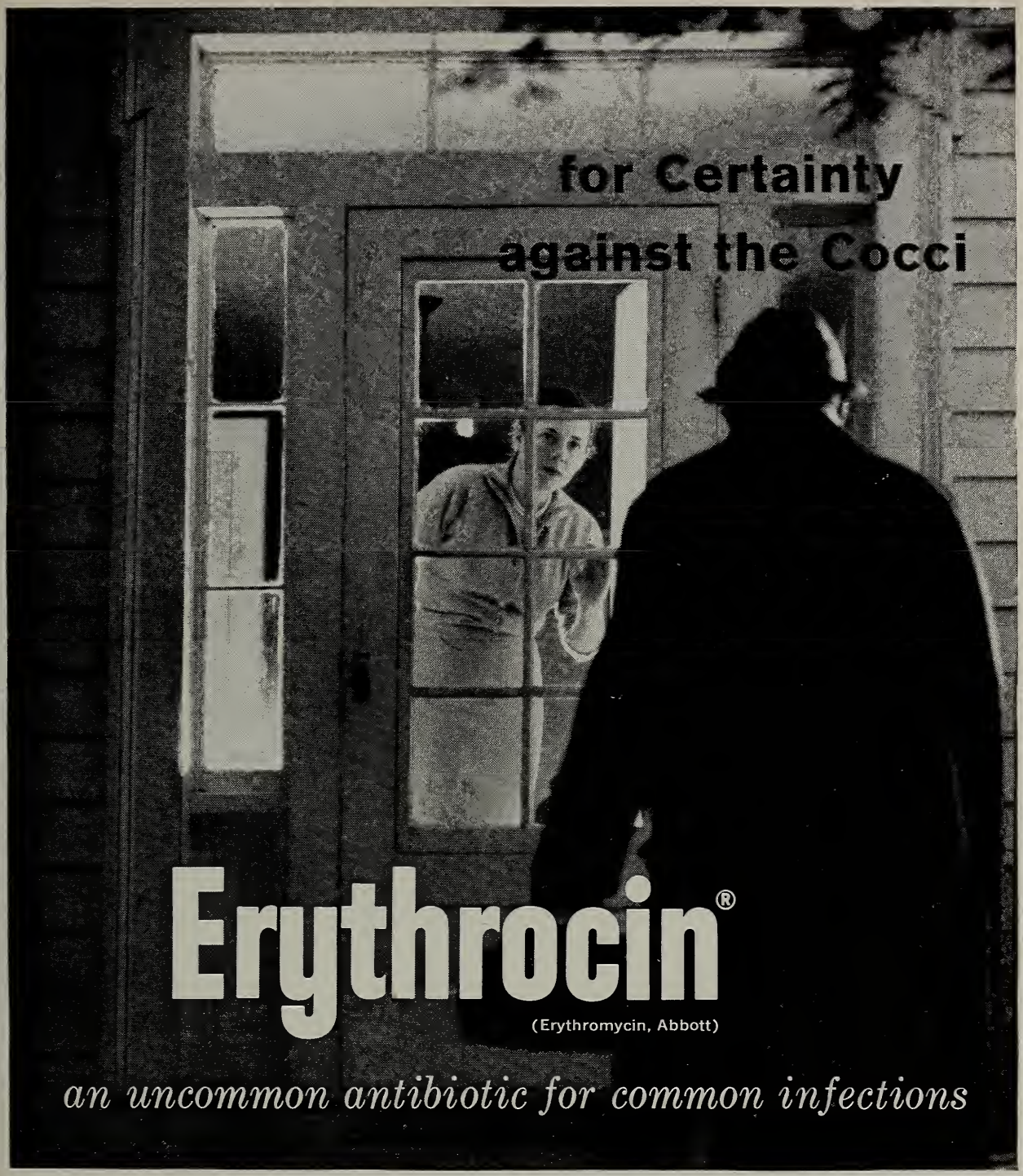
GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle



Provides fast, high blood and tissue concentrations—plus an unparalleled safety record. Erythrocin is available in easy-to-swallow Filmtabs® (100 and 250 mg.); in tasty, citrus-flavored Oral Suspension (200 mg. per 5-cc. teaspoonful); and for intravenous and intramuscular use.

ABBOTT

®FILMTABS—FILM-SEALED TABLETS. ABBOTT; U.S. PAT. NO. 2,881,085

909132

(Continued from Page 1702)

in Michigan to honor "the important help members of this profession are giving to those in need of medical attention, to the health of our communities and to improvements in hospital care."

Mrs. J. Kathryn Sheetz, chief record libarian at The Uinversity of Michigan Medical Center and president of the state association, received the proclamation in Williams' office. She heads a staff of 109 persons at the U-M with custody of the medical records of more than three-quarters of a million patients.

POSTGRADUATE PROGRAMS

Midwest Clinical Society will hold its twenty-seventh annual meeting in Omaha Civic Auditorium, November 2, 3, 4, 5, 1959. There will be eleven guest speakers of national standing.

* * *

American Board of Obstetrics and Gynecology, Inc.—The next scheduled examination (Part 1), written, and review of case histories for all candidates will be held in various cities of the United States, Canada, and military centers outside the Continental United States, on Friday, January 15, 1960. Candidates must submit case reports to the office of the Secretary within thirty days of being notified of their eligibility to Part 1. Current bulletins may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

Executive Type Health Examination.—On Wednesday, September 9, the 1,000th University of Michigan faculty member began his two-week executive-type health examination under a program launched three years ago. Elective, confidential and free of charge, the examinations were established to maintain the health of the faculty and to check any disorders before they reach serious proportions. Invitations for the health appraisal originally went to faculty members above age sixty. Gradually, the age level has been reduced so that present invitees are in the thirty to forty age bracket. Dr. Charles J. Tupper, associate professor of internal medicine, is director of the faculty health project. He reported that 75 per cent of those invited to have the examination have accepted.

* * *

American College of Allergists.—The American College of Allergists Graduate Instructional Course and Annual Congress, February 28 to March 4, 1960, The Americana Hotel, Bal Harbour, Miami Beach, Florida. For information, contact John D. Gillaspie, M.D., Treasurer, 2049 Broadway, Boulder, Colorado.

* * *

Association of Military Surgeons.—Two thousand American and international physicians, dentists, veterinarians, nurses, and medical specialist delegates will begin registering for the 66th Annual Convention of the Association of Military Surgeons on the afternoon

(Continued on Page 1712)



GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B_1)	5 mg.
Riboflavin (B_2)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B_6)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as $CaHPO_4$)	157 mg.
Phosphorus (as $CaHPO_4$)	122 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Manganese (as MnO_2)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Where a poly-unsaturated oil is called for in the diet, **Wesson** satisfies the most exacting requirements

(and the most exacting palates!)



More acceptable to patients. Wesson contributes greatly to the palatability of food and, thus, can be important in encouraging patients to maintain prescribed restricted diets. By the criteria of odor, flavor (blandness) and lightness of color, housewives prefer Wesson.*

Uniformity you can depend on. Wesson has a poly-unsaturated content better than 50%. Only the lightest cottonseed oils of highest iodine number are selected for Wesson, and no significant variations are permitted in the 22 exacting specifications required before bottling.

Economy. Wesson is consistently priced lower than the next largest seller, a not unimportant consideration, where poly-unsaturated oil is called for.

Wesson's Active Ingredients:	
Linoleic acid glycerides	50% to 55%
Phytosterol (predominantly beta sitosterol)	0.4% to 0.7%
Total tocopherols	0.09% to 0.12%
Never hydrogenoted—completely salt free	

* Reconfirmed by recent tests against the next leading brand with brand identifications removed, among a national probability sample.

(Continued from Page 1710)

of November 8. The theme of the three-day convention is "Practice of Military Medicine."

* * *

The Academy of Medicine of Cleveland and Cuyahoga County Medical Society will present a two-day postgraduate seminar on "Recent Advances in Diagnosis and Therapy of Malignant Disease," Wednesday and Thursday, November 18, 19, 1959. Inquiries should be addressed to the Academy of Medicine of Cleveland, 2009 Adelbert Road, Cleveland 6, Ohio. Telephone: CEdar 1-3500.

* * *

Radiation Control.—The University of Michigan's School of Public Health has been approved by the Atomic Energy Commission to teach radiation control and health physics to students holding A.E.C. scholarships. Clarence J. Velz, chairman of the Department of Environmental Health, said the approval recognizes that the university has one of the most intensive radiological health programs in the United States. Two years of study will be required for a student to win a master of public health degree in this specialty. At present there are fifteen students enrolled, and six of them are working toward doctoral degrees in the field. Only students employed in state regulatory agencies may enroll in the radiation control program, although a comparable program in health physics is open to any student with proper academic qualifications.

* * *

Aid for Hay Fever Victims.—University of Michigan meteorologists have developed an instrument for measuring the amount of hay fever pollen in the air which far surpasses in accuracy the gravity-slide method commonly in use. James B. Harrington, research associate, said the roto-bar sampler, which rotates at 3,600 R.P.M., traps pollen from the air on a piece of metal one and one-quarter inches long and about one millimeter (or approximately three one-hundredths of an inch) thick. The pollen is impinged or trapped on the edge which has been made sticky.

The gravity slide sampler is sensitive to changes in both wind speed and direction and does not give an accurate representation of the pollen concentration in the air, he indicated. With the roto-bar sampler, however, the rotating speed is high enough to be unaffected by wind changes. The device was developed as one of the advances made during a five-year study of all aspects of hay fever being conducted by the University of Michigan for the National Institutes of Health. Now entering its final year, the study also involves medical doctors, botanists, and public health statisticians.

It is estimated that some 7,500,000 Americans each year are hay fever victims.

(Continued on Page 1714)

Tested . . . and proved . . .

ORAL therapy in diaper rash!



Convenient . . . simply open a capsule and add the contents to the baby's daily formula, or to fruit juice or water. No lotions . . . no rinses . . . no ointments . . . just oral therapy.

Send for samples and literature.

S. F. DURST & CO., INC.
Philadelphia 20, Pa.

Effective therapy! Thousands of pediatricians and general practitioners prescribe Pedameth for ammonia dermatitis—and they continue to prescribe it. Clinical tests have proved its effectiveness. Pedameth is safe because it contains only dl-methionine (0.2 Gm.) one of the essential amino acids. When Pedameth is administered, the pH of the urine is lowered and an as-yet-unknown antibacterial agent appears in the urine. Pedameth works . . . it's the safe, effective, convenient answer to ammoniacal diaper rash.

Prescribe

PEDAMETH®

(dl-methionine DURST)



what lurks beyond the broad spectrum?

"Broad spectrum" has evolved into an especially apt term to describe a growing number of "specialized" antibiotics. These provide the best means of destroying pathogenic bacteria which range all the way from large protozoa through gram-negative and gram-positive bacteria to certain viruses at the far end of the spectrum.

But beyond the spectrum lurk pathogenic fungi. Aggressive infections often require intensive broad spectrum antibiotic attack. It becomes more apparent every day that fungal superinfections may occur during or following a course of such therapy.[1,2] Long term debilitating disease, diabetes, pregnancy, corticosteroid therapy, and other causes may predispose to such fungal infections[1,3,4] as iatrogenic moniliasis. These facts complicate the administration of antibiotics.

Mysteclin-V controls both — infection and superinfection. Mysteclin-V makes a telling assault on bacterial infections and, in addition, prevents the potentially dangerous monilial overgrowth.[2,5-8] Mystèclin-V is a combination of the phosphate complex of tetracycline — for reliable control of most infections encountered in daily practice — and Mycostatin, the first safe antifungal antibiotic.

Case history after case history marked "recovered" provides clinical evidence of the special merit of this advance in specially designed antibiotics. When you prescribe Mysteclin-V, you provide "broad therapy" with extra protection that extends beyond the spectrum of ordinary antibiotics.

'MYSTECLIN'®, 'SUMYCIN'®, AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS

Supplied:	Tetracycline Phosphate Complex equiv. Tetracycline HCl (mg.)	Mycostatin units
Mysteclin-V Capsules (per capsule)	250	250,000
Mysteclin-V Half-Strength Capsules (per capsule)	125	125,000
Mysteclin-V Suspension (per 5 cc.)	125	125,000
Mysteclin-V Pediatric Drops (per cc. — 20 drops)	100	100,000

References: 1. Dowling, H. F.: Postgrad. Med. 23:594 (June) 1958. 2. Gimble, A. I.; Shea, J. G., and Katz, S.: Antibiotics Annual 1955-1956, New York, Medical Encyclopedia Inc., 1956, p. 676. 3. Long, P. H., in Kneeland, Y., Jr., and Wortis, S. B.: Bull. New York Acad. Med. 33:552 (Aug.) 1957. 4. Rein, C. R.; Lewis, L. A., and Dick, L. A.: Antibiotic Med. & Clin. Ther. 4:771 (Dec.) 1957. 5. Stone, M. L., and Mershelmer, W. L.: Antibiotics Annual 1955-1956, New York, Medical Encyclopedia Inc., 1956, p. 862. 6. Campbell, E. A.; Prigot, A., and Dorsey, G. M.: Antibiotic Med. & Clin. Ther. 4:817 (Dec.) 1957. 7. Chamberlain, C.; Burros, H. M., and Borromeo, V.: Antibiotic Med. & Clin. Ther. 5:521 (Aug.) 1958. 8. From, P., and Alli, J. H.: Antibiotic Med. & Clin. Ther. 5:639 (Nov.) 1958.

Mysteclin - V

SQUIBB TETRACYCLINE PHOSPHATE COMPLEX (SUMYCIN) AND NYSTATIN (MYCOSTATIN)

SQUIBB

Squibb Quality — the Priceless Ingredient

(Continued from Page 1712)

Congenital Heart Disease will be the theme for the Second International Symposium on Changing Concepts in Medicine at the Bellevue-Stratford Hotel, Philadelphia, Pennsylvania, April 28-30, 1960.

* * *



Harold A. Furlong, M.D., Pontiac, was featured by the *Detroit Times*, on August 13, as one of 11 Michigan men still living who won the Congressional Medal of Honor. Lieutenant Furlong, on November 1, 1918, took command of an infantry company when his commander and several others were killed by machine-gun fire in an attack at Boise de Bantheville, France. He circled the German position and attacked from the rear, cleaned up the pocket, bagging twenty German soldiers.

Modestly, Doctor Furlong stated, "I was lucky not to be killed and have been living 40 years on borrowed time. I just did the job I thought I was supposed to do. Probably many men do braver things and go unnoticed."

Doctor Furlong did not indicate that he also was awarded the Croix de Guerre by France!

Doctor Furlong has been a very active member of the Oakland County and Michigan State Medical Societies since he began medical practice in Pontiac in 1929.

Earl E. Weston, M.D., engaged in industrial medicine for 22 years and a member of Highland Park General Hospital staff, has been appointed medical director of Vickers Incorporated, Division of Sperry Rand Corporation. He will help Vickers with medical-health programs and safety projects and will co-ordinate all medical-industrial hygiene activities among the Vickers plants. A graduate of the University of Michigan Medical School, he is a past president of the Michigan Industrial Medical Association and the Detroit Industrial Physicians Club.

* * *

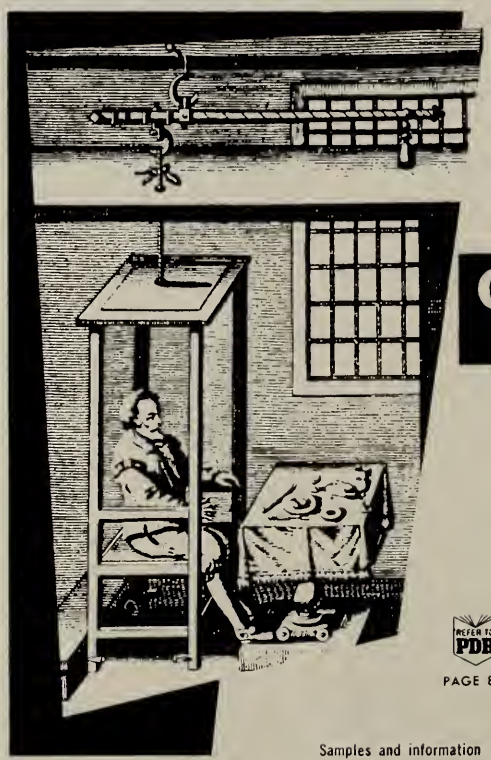
The American Fracture Association will hold its 20th annual meeting at the Roosevelt Hotel, New Orleans, Louisiana, Nov. 1-4. Co-operating in this postgraduate course is the American Academy of General Practice.

* * *

Radio Communications.—On June 6, 1959, the American Medical Association filed a petition with the Federal Communications Commission requesting the Commission to make six, 30-kc channels in the band 161.645-161.825-mc available to broadcast stations for remote pick-up purposes on an exclusive basis. If this request is granted, greater utilization may be made of FM noncommercial broadcast station facilities for providing advanced instruction to members of the medical profession.

Previously, on October 8, 1959, the AMA filed a petition with the FCC requesting the Commission to make certain radio channels available to physicians. No action

(Continued on Page 1716)



Sanctorius on his steelyard chair in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL

with

QUADAMINE

GRANUCAP ®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR

PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN



running noses



and open stuffed noses orally

Triaminic®

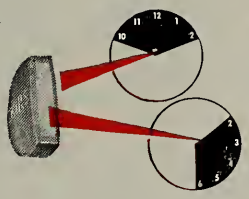
the leading oral nasal decongestant

- in nasal and paranasal congestion
- in sinusitis
- in postnasal drip
- in allergic reactions of the upper respiratory tract.

safer and more effective than topical medication[1,2,3]

- systemic transport to all respiratory membranes
- provides longer-lasting relief
- presents no problem of rebound congestion
- avoids "nose drop addiction"

Relief with Triaminic is prompt and prolonged because of this special timed-release action . . . beneficial effect starts in minutes, lasts for hours



first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then—the core disintegrates to give 3 to 4 *more* hours of relief

Each TRIAMINIC Tablet provides:
Phenylpropanolamine HCl .....50 mg.
Pheniramine maleate .....25 mg.
Pyrilamine maleate .....25 mg.

One-half of this formula is in the outer layer, the other half is in the core.

Dosage: One tablet in the morning, mid-afternoon and at bedtime.

References: 1. Lhotka, F. M.: Illinois M. J. 112: 259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

TRIAMINIC JUVELETS: Each timed-release Juvelet is equivalent in formula and dosage to one-half of a TRIAMINIC tablet, for the adult or child who requires only half strength dosage.

TRIAMINIC SYRUP is recommended for adults and children who prefer liquid medication. Each 5 ml. tsp. is equivalent to ¼ of a Triaminic Tablet. *Adults:* 2 tsp. 3-4 times a day; *children 6-12:* 1 tsp. 3-4 times a day; *children under 6:* in proportion.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

(Continued from Page 1714)

has been taken by the Commission on this petition as yet. *The Citation,* Vol. 2, No. 4.

* * *

M.D. Locations—Through August 31, 1959.—*Placed by Michigan Health Council:* Jim VerLee, M.D., Grand Rapids; William G. Bunto, M.D., Lansing; Donald E. Christensen, M.D., Gaylord.

Assisted by Michigan Health Council: Robert E. Willis, M.D., Flint; Thomas Baker, M.D., Freeland; Ophelia Baker, M.D., Freeland; Glenn O. Lease, M.D., Ann Arbor; Herbert E. Humphrey, M.D., Marshall.

* * *

Medical Television Shows produced by Michigan Health Council.—*August 2*—"Alcoholics Anonymous"—(Film—"Behind the Screen"); *August 9*—"The Greatest Good"—(Film—"The Greatest Good"); *August 16*—"Radiology"—(Film—"First a Physician"); *August 23*—"Medical Care"—(Film—"Operation Herbert"); *August 30*—"Life of a Doctor"—(Film—"Night Call").

* * *

Epilepsy Course at Wayne.—A. Earl Walker, M.D., Professor of Neurosurgery and Chairman of the Department of Neurological Surgery at Johns Hopkins Hospital, has accepted an invitation to present the Annual Alpha Omega Alpha Lecture at Wayne State University College of Medicine on Friday, November 20, 1959, from 11:00 to 12:00 noon in the Wayne County Medical Society Auditorium. The subject he has chosen is titled "A Modern View of the Falling Sickness." In this lecture he will present some current experimental work on the pathogenesis and mechanisms of focal epilepsy.

In addition to presenting this formal lecture, Dr. Walker will present, on Thursday evening to the members of the Alpha Omega Alpha Honorary Medical Society, a talk titled "Cranial Surgery or the Devine Mark." This talk will be a discussion of some of the practices of pre-Incan Peruvians who carried out trephining of the skull as part of a religious ceremony.

Dr. Walker will also act as Professor of Neurosurgery, pro tempore, for the dates of Thursday, November 19, Friday, November 20 and Saturday, November 21, at which time he will conduct rounds on clinical problems on the Neurosurgical and Neurological Service for the benefit of residents, interns, students and attending staff.

* * *

WHAT AMERICANS SPEND

$3.4 billions	Drugs and Sundries
4.0 billions	Physicians' services
4.3 billions	Hospital services
4.3 billions	Personal care
6.5 billions	Tobacco and products
9.3 billions	Alcoholic beverages

—U. S. Department of Commerce



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE

TENTH ANNIVERSARY CONFERENCE

You are invited to join the Detroit Memorial Hospital in celebrating its Tenth Anniversary Conference, "Cancer of the Breast," Wednesday, December 2, 1959, at the David Whitney House, Wayne County Medical Society, 1010 Antietam, Detroit, Michigan. The program is as follows:

Noon

12:00 Luncheon—David Whitney House
Presiding—HAROLD JARVIS, M.D., Chief of Staff
Senior Attending, Obstetrics & Gynecology,
Detroit Memorial Hospital

P.M.

1:30 "Incidence, Pathogenesis and Pathologic Aspects of Breast Cancer"
C. F. GESCHICKTER, M.D.
Professor and chairman, Department of Pathology,
Georgetown University Medical School, Washington, D. C.
Chief of Department of Pathology,
District General Hospital, Washington, D. C.

2:20 "Surgical Management of Breast Cancer"
E. W. LEWISON, M.D.
Assistant Professor of Surgery,
Johns Hopkins University School of Medicine, Baltimore
Chief of Breast Clinic, Division of Tumor Clinic,
Johns Hopkins Hospital, Baltimore, Maryland

3:05 Recess

3:20 "Hormonal and Other Medical Aspects in the Management of Breast Cancer"
SAMUEL G. TAYLOR III, M.D.
Associate Professor of Medicine,
University of Illinois, Chicago
Director of Medical Oncology,
Presbyterian Hospital, Chicago, Illinois

4:10 "Radiotherapy in the Management of Breast Cancer"
L. H. GARLAND, M.D.
Clinical Professor in Radiology,
Stanford University Medical School, San Francisco
Consultant Radiologist,
Letterman Army Hospital, U. S. Veterans Administration

5:30 Cocktails and Dinner—David Whitney House

7:30 Panel Discussion and Question and Answer Period—
"Management of Breast Cancer"
C. F. GESCHICKTER, M.D., E. W. LEWISON, M.D., SAMUEL TAYLOR, M.D., and L. H. GARLAND, M.D.
Presiding—JAMES E. LOFSTROM, M.D.
Professor and Chairman of Radiology,
Wayne State University College of Medicine
Director of Department of Radiology,
Detroit Memorial Hospital

Luncheon and Cocktails compliments of the staff of Detroit Memorial Hospital. Dinner by subscription because of limited facilities. Charge: $5.00. Registration for luncheon and dinner must be made before November 15, 1959. Those interested should address all correspondence to: Jack Rom, M.D., Chairman, Program Committee, Detroit Memorial Hospital, 1420 St. Antoine St., Detroit 26, Michigan.



Athemol FOR ARTERIOSCLEROSIS

Athemol (R), Meyer brand of Magnesium 3-7-dimethyl xanthine oleate, is a new compound for the treatment of arteriosclerosis and atherosclerosis.

Athemol tablets are available in bottles of 100 and 500

MEYER AND COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE • ST. CLAIR SHORES, MICH.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE

124 West Gates Street

Romeo, Michigan

Laboratory Examinations

Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*

537 Millard Street

Saginaw, Michigan

PHONE: Pleasant 2-4100
2-4109

Communications

Dear Doctor:

Your letter asking advice with respect to the handling of Tissue Committee records has been referred to me for attention.

I have long believed that there are definite risks involved in keeping records of Tissue and Medical Audit Committees and, unfortunately, I can suggest no certain and complete safeguards. Such committees perform recognized and extremely valuable functions and I do not believe that they can be done away with or that no records of such committees be kept merely because they might, in some instances, be used to aid in the prosecution of malpractice actions. I do believe, however, that all reasonable precautions should be taken to make such records as impersonal and as confidential as possible.

In recent years, our courts have liberalized the so-called "discovery" practice to such an extent that it is much easier for litigants or prospective litigants to obtain access to records than was formerly the case. This means, of course, that such records must be compiled much more carefully and impersonally and that the consequences must be kept in mind at all times.

Such records should always be kept separately from the patient's record and evaluations of the patient's care should never be permitted to appear on the patient's record. The names of doctors preferably should not be used in staff committee minutes and records and where necessary that they be identified, they should preferably be coded. Care should be taken that gratuitous comments beyond those necessary to proper evaluation should never appear in the records.

While I realize that such records must be kept in order to comply with requirements of the Joint Commission of Accreditation, I do not believe that there is any requirement that they be kept for any particular length of time. I therefore recommend that such records be not permitted to accumulate beyond the point where they have served their purpose.

In conjunction with the Legislative Committee of MSMS, I am now studying the pros and cons of legislation designed to safeguard the confidential nature of records of this kind so as to make it impossible to reach them for use in litigation. Personally, I am inclined to believe that this is the best ultimate answer, but until definite legislation is worked out and proposed, I can suggest only the general type of safeguard above outlined.

Very truly yours,
Lester P. Dodd
Legal Counsel, MSMS

Detroit, Michigan
August 7, 1959

HEW Secretary Arthur S. Fleming in a statement at the opening of hearings on the Forand Bill to establish in the Social Security framework a compulsory health insurance for the aged said: "Instead of abandoning voluntary hospital insurance for the aged in favor of compulsory insurance, every possible effort should be made to determine whether or not a plan can be developed that will strengthen the voluntary approach."

tion. It is primarily helpful in being rather dogmatic than presenting several alternatives to only confuse one seeking merely a safe and practical solution to a given injury.

Lest the title prove misleading, be it remembered there is no such thing as "minor" surgery, only "minor" surgeons.

SURGERY OF THE FOOT. By Henri L. DuVries, M.D., Clinical Instructor in Surgery, Chicago Medical School; Attending Surgeon, Columbus Hospital, Mother Cabrini Hospital and Frank Cuneo Hospital; Chairman, Department of Surgery, Illinois College of Chiropody and Foot Surgery, Chicago. Foreword by Karl A. Meyer, M.D. Introduction by Edward L. Compere, M.D. With 403 figures. St. Louis: The C. V. Mosby Co., 1959. Price, $12.50.

This book is a welcome, much sought-for addition to the library of any physician. Who has suffered from or who has treated sore feet. It is unique in that it is written by a man who was a chiropodist before he became a doctor of medicine, and he has continued to specialize in the foot and its shortcomings for thirty years.

The book is a hard-bound, glossy paper edition containing excellent photographs, diagrams nad drawings. There are eighteen chapters, all well written and well organized.

The opening chapter on anatomy contains almost self-explanatory sketches which visualize the functional anatomy very clearly. The chapters on examination and operative principles, although short, are adequate and well illustrated.

The chapters on infections, tumors, and trauma take up classification and explain diagnostic problems in terms of structure and pathological physiology. Modern methods of treatment are discussed.

Other chapters deal with specific problems, such as skin disorders, toenails diseases, diseases of facia, synovia, tendon, sesamoids, the arthritides, necroses, atrophies, fractures, anomalies and deformities. These are discussed from the standpoint of etiology, diagnosis and treatment.

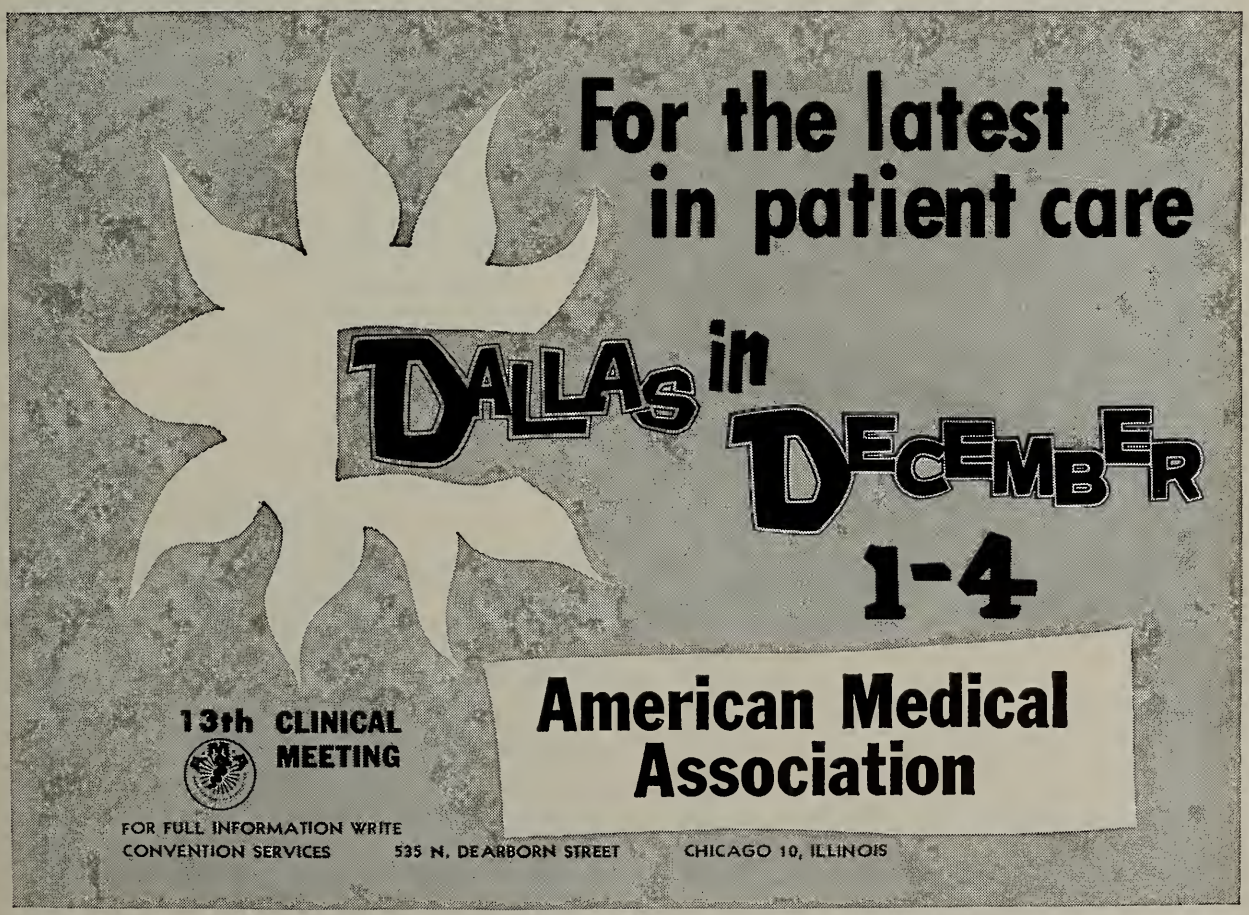
At the end of each chapter there is a complete, up-to-date bibliography with both an author and a subject index.

This book is a classic and should be in the library of any physician who has a patient remove his shoes for an examination.

J.M.H.

CLINICAL PROBLEMS IN CHEST DISEASE. Hemoptysis, Pneumonitis, The Mediastinal Mass, Pleural Effusion, With Special Reports on Pulmonary Cytology and the Management of Chest Trauma. Upjohn Grand Rounds No. 8. Washington University—Barnes Hospital Medical Center in St. Louis. Telecast.

The report is an illustrated transcript of the discussion. The complete 90-minute program is available on film to members of the medical and allied professions upon request to the Upjohn Company, Kalamazoo, Michigan, without charge.



Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

OB-GYN—Southwestern Michigan resort area, town of 35,000, shopping area 100,000. Established ten years, gross to $60,000. Two approved hospitals four and eight minutes. Buy lease of air-conditioned office, general office equipment, records, medical equipment optional. Will introduce. Duration desired. Terms. Write: Box 16, 606 Townsend Street, Lansing, Michigan.

FOR RENT—Three-room suite in new medical building. Location ideal—one hour from the heart of Detroit—One G.P., who is also interested in helping with Industrial Medicine as a relief man. Up and growing community. For further details, contact: W. C. Gibson, M.D., 216 East Commerce St., Milford, Michigan. Phone Milford, MUtual 4-6775 and 4-6771.

EXCELLENT OPPORTUNITY for associate in general practice. New two-man clinic in town of 10,000. 80-bed hospital. Salary open, depending on training and experience. Reply Box 15, 606 Townsend St., Lansing, Michigan.



FOR RENT—Dental office in clinic with one M.D., vicinity of Gratiot and Six Mile Road, Detroit. Reasonable. Tuxedo 1-1571.

AVAILABLE FOR LEASE—October 15, 1959. City of Warren. New medical building including the following rooms—reception, private office, two examining, x-ray, business office, two toilets, EKG, laboratory and darkroom, utility. Across the street from three schools—next door to dental office with large practice. Excellent area consisting of new and older homes. Klein & Company—Designers and builders of fine medical buildings. 15940 W. McNichols Road, Detroit 35, Michigan. Vermont 7-0733.

FOR SALE—General practice office-home combination. Only M.D. in small town near resort area. Hospital ten miles away. Gross over $40,000 a year. Present M.D. leaving for a residency soon. Write: Box 19, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE: Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Contact: Box No. 8, 606 Townsend Street, Lansing, Michigan.

FOR SALE: Well-established practice and ten-bed hospital in community of 20,000. Two-story building with living quarters in rear. Equipped with operating room, x-ray, Metropolitan delivery table and complete line of drugs. New boiler and stoker installed three years ago. Relocating due to ill health. Contact: Box 9, 606 Townsend Street, Lansing, Michigan.

TEN-YEAR-OLD General Practice in Northwest Detroit suburb. Completely equipped office located in North Woodward. Excellent opportunity. Temporarily incapacitated and will work out partnership or outright sale. Box 20, 606 Townsend Street, Lansing, Michigan.

MEDICAL PRACTICE—in good area, established over forty years; present owner retiring due to health and age. Excellent income. Will give very good terms to younger doctor. For details write or call Lee Guernsey, LaNoble Realty, 1516 E. Michigan Ave., Lansing, Michigan, IV 2-1637, evenings IV 9-0814.

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 NOVEMBER, 1959 NUMBER 11

Contributors to This Issue



P. T. Chapman, M.D.



W. N. Davey, M.D.



L. A. Ferguson, M.D.



J. P. Muldoon, M.D.



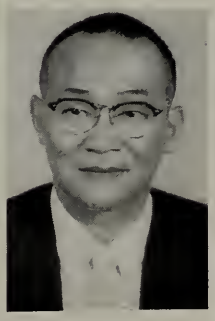
R. L. Rapport, M.D.



R. A. Rasmussen, M.D.



H. O. Thompson, M.D.



Jack F. Wu, M.D.

Table of Contents

Granulomas of the Lung
Richard A. Rasmussen, M.D., Richard H. Mead, M.D., and Clair E. Basinger, M.D. 1791

Treatment of Pulmonary Tuberculosis with Seromycin
Anthony F. Stiller, M.D., and *Winona Barrows, M.D.* 1796

Tuberculin Sensitivity in Michigan Children
John L. Isbister, M.D. 1801

Tuberculosis Coexistent with Lung Cancer and Fungous Disease
Albert H. Kempter, M.D. 1805

Chylothorax
Jack Foy Wu, M.D. 1807

Histoplasmosis in Michigan
Winthrop N. Davey, M.D., Mary E. Clifford, M.D., and *Nancy E. Furstenberg, M.D.* 1816

Diagnostic Problems and Procedures in Pulmonary Disease
A. G. Nafrawi, M.D., and *C. J. Stringer, M.D.* 1823

The Problem of Excess Tuberculosis Beds in Michigan
Paul T. Chapman, M.D. 1832

Traumatic Aneurysms of the Hand
Stuart W. Hamburger, M.D. 1835

The "Tired" Patient
Hugh O. Thompson, M.D. 1838

Megacolon
James P. Muldoon, M.D., and *Lynn A. Ferguson, M.D.* 1842

Intestinal Obstruction after Colon Surgery
Meyer O. Cantor, M.D., F.A.C.S. 1844

President's Page 1848

Editorial
- The Tuberculosis Suspect 1849
- National Legislation 1851
- We Lost Three 1851
- Ninety-fourth Annual Session 1852
- Blue Shield—The "Patient's Plan" 1854

Honor Saginaw Man—"Foremost Family Physician" 1855
MSMS Building Report 1857
Obstetrical Brevits 1859
Michigan's Department of Health 1860
In Memoriam 1866
Communications 1874
News Medical 1884
C. A. Conshus, M.D., Says 1915
The Doctor's Library 1916

You and Your Business 1768
Michigan Meetings and Clinic Days 1776
PR Report 1778
Michigan State Fair Exhibit Wins First Place 1783
Twelve Elected to Michigan Medical Service Board 1788

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 NOVEMBER, 1959 NUMBER 11

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. ALLEN PAYNE, M.D.....Grand Rapids

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1959-1960

President.....MILTON A. DARLING, M.D.....Detroit
President-Elect.....K. H. JOHNSON, M.D.....Lansing
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Vice Speaker.....H. F. FALLS, M.D.....Ann Arbor

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman*, Calumet
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		Term Expires
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
WM. A. SCOTT, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LEFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1964
R. J. MASON, M.D.	15th	Birmingham	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1964

MILTON A. DARLING, M.D.....*President*.....Detroit
K. H. JOHNSON, M.D.....*President-Elect*.....Lansing
J. J. LIGHTBODY, M.D.....*Speaker*.....Detroit
H. F. FALLS, M.D.....*Vice Speaker*.....Ann Arbor
D. BRUCE WILEY, M.D.....*Secretary*.....Utica
W. A. HYLAND, M.D.....*Treasurer*.....Grand Rapids
G. B. SALTONSTALL, M.D.....*Past President*.....Charlevoix

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
T. P. WICKLIFFE, M.D.....Vice Chairman
W. M. LEFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
O. B. McGILLICUDDY, M.D.....Chairman, Finance Committee
J. J. LIGHTBODY, M.D.....Speaker
H. F. FALLS, M.D.....Vice Speaker
MILTON A. DARLING, M.D.....President
K. H. JOHNSON, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
Lyle Heavner, M.D.....Detroit
Chairman
George T. Bradley, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
Warren R. Moore, M.D.....Detroit
Chairman
Charles M. Bell, M.D.....Grand Rapids
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
Howard T. Knobloch, M.D.....Bay City
Chairman
John L. Doyle, M.D.....Grand Rapids
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Ann Arbor
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
William Bromme, M.D.....Detroit
President
Harry E. Lichtwardt, M.D.....Birmingham
Secretary-Treasurer

DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Crook	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

*To fill unexpired term of R. W. Shook.

If one . . . or all . . . needs nutritional support . . .



they
deserve

GEVRAL®

capsules—14 VITAMINS AND 11 MINERALS

Vitamin-Mineral Supplement Lederle

For Complete Formula see PDR (Physicians' Desk Reference), page 689

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

MSMS Committee Personnel 1959-1960

RHEUMATIC FEVER CONTROL COMMITTEE

S. T. Harris, M.D., *Chairman*....27 S. Prospect, Ypsilanti
R. E. Fisher, M.D., *Vice Chairman*....158 Capitol Ave., N.E., Battle Creek
E. W. Adams, M.D.....517 Wildwood Avenue, Jackson
R. R. Barber, M.D.....504 S. Main St., Plymouth
J. G. Bielawski, M.D.....922 Maccabees Building, Detroit
D. R. Boyd, M.D.,.....1735 Peck St., Muskegon
F. J. Chapin, M.D.....2121 Center Ave., Bay City
Carleton Dean, M.D.....252 Hollister Bldg., Lansing
D. P. Gage, M.D.....2002 Court St., Saginaw
T. B. Hill, M.D.....103 W. Main St., Lowell
C. L. Hoogerland, M.D.....303 W. Superior St., Alma
J. D. Littig, M.D.....1708 Embury Road, Kalamazoo
N. L. Matthews, M.D.....St. Luke's Hospital, Marquette
W. B. Prothro, M.D.....303 Ionia St., N.E., Grand Rapids
J. S. Rozan, M.D.....103 N. Washington Ave., Lansing
E. E. Schumacher, Jr., M.D.....833 Lake Drive, S.E., Grand Rapids
D. S. Smith, M.D.....824 Riker Bldg., Pontiac
R. M. Stow, M.D...512 Michigan National Tower, Lansing
B. J. Sweeney, M.D.....1100 Sixth, Traverse City
R. D. Tupper, M.D.....15101 W. Seven Mile Road, Detroit
Mr. James Gerity, Jr., *Advisor*.....Deer Park, Adrian
Mr. William A. Wiard, *Advisor* 3919 John R., Detroit

VENEREAL DISEASE CONTROL COMMITTEE

A. C. Curtis, M.D., *Chairman*.....University Hospital, Ann Arbor
M. W. Alcorn, M.D.....1420 Center Ave., Bay City
V. W. Cambridge, M.D.....727 N. Jefferson Ave., Saginaw
J. A. Cowan, M.D.....Michigan Department of Health, Lansing
R. H. Grekin, M.D.....136 E. Michigan Ave., Kalamazoo
Ruth Herrick, M.D...26 Sheldon Ave. S.E., Grand Rapids
P. J. Hettle, M.D.....Savings Bank Bldg., Marquette
H. L. Keim, M.D.....1110 David Broderick Tower, Detroit
R. I. Lurie, M.D.....2525 S. Washington Ave., Saginaw
Benjamin Schwimmer, M.D.....660 Clinton St., Detroit 26
H. C. Tellman, M.D.....706 Hackley Union Bank Bldg., Muskegon
Kornelius VanGoor, M.D.....213 Medical Arts Bldg., Grand Rapids
R. S. Breakey, M.D., *Advisor*..520 Westmoreland, Lansing
L. W. Shaffer, M.D., *Advisor*.....6040 Wildrose Lane, Port Huron

MATERNAL HEALTH COMMITTEE

F. A. Jones, Jr., M.D., *Chairman*.....716 Michigan National Tower, Lansing
H. A. Ott, M.D., *Vice Chairman*.....3019 N. Woodward Avenue, Royal Oak
F. W. Bald, M.D.....610 Mott Foundation Bldg., Flint
C. A. Behney, M.D.....Michigan Dept. of Health, Lansing
C. M. Bell, M.D.....12-18 Monroe Ave., N.E., Grand Rapids
H. R. Brukardt, M.D.....Electric Square Bldg., Menominee
Goldie B. Corneliuson, M.D.....Michigan Dept. of Health, Lansing
C. E. Darling, M.D.....3011 W. Grand Blvd., Detroit 2
A. L. Foley, M.D.....Rogers City
E. C. Galsterer, M.D.....128 S. Jefferson Ave., Saginaw
W. F. Goins, M.D.....6675 Tireman, Detroit
J. E. Harryman, M.D.....1129 Peck St., Muskegon
E. F. Hersey, M.D.....516 Whites Road, Kalamazoo
Wm. W. Jack, M.D.....1810 Wealthy St., S.E. Grand Rapids
W. C. Lambert, M.D.....Medical Bldg., Marquette
H. W. Longyear, M.D.....3019 N. Woodward Ave., Royal Oak
A. G. McQuaig, M.D.....719 S. W. Capitol, Battle Creek
N. F. Miller, M.D.....University Hospital, Ann Arbor
H. R. Mooi, M.D.....292 E. Chicago, Coldwater
A. C. Rutzen, M.D.....3011 W. Grand Blvd., Detroit 2
H. W. Sill, M.D.....290 W. Michigan, Jackson
C. S. Stevenson, M.D.....1405 Kales Bldg., Detroit
P. E. Sutton, M.D.....30153 Bristol Lane, Birmingham
D. W. Thorup, M.D.....610 Fidelity Bldg., Benton Harbor
J. H. Tisdel, M.D.....310 E. Water St., Port Huron
C. E. Toshach, M.D.....3655 Schust Road, Saginaw
R. F. Trescott, M.D.....716 Michigan National Tower, Lansing
H. R. Williams, M.D...1950 Manchester Road, Ann Arbor
Mary Lou Byrd, M.D., *Advisor*.....700 Kent Hills Drive, N.E., Grand Rapids 5

COMMITTEE ON DIABETES

W. M. LeFevre, M.D., *Chairman*.....315 W. Clay Street, Muskegon
T. H. Cobb, M.D.....880 Woodward Ave., Pontiac
J. A. Cowan, M.D.....825 Touraine, East Lansing
P. J. Moore, M.D.....113 East Williams, Owosso
J. B. Rowe, M.D.....653 Saginaw St., Flint
Bert Van Ark, M.D.....101 W. Plain, Eaton Rapids
K. K. Vining, Jr., M.D.....833 Lake Drive, S.E., Grand Rapids
H. L. Woodburne, M.D...916 Washington Ave., Bay City

TUBERCULOSIS CONTROL COMMITTEE

R. L. Rapport, M.D., *Chairman*....715 Mott Foundation Building, Flint
Abraham Becker, M.D.....1414 David Broderick Tower Detroit
P. T. Chapman, M.D.....1151 Taylor Avenue, Detroit
M. B. Conover, M.D.....312 Paterson Building, Flint
W. N. Davey, M.D.....University Hospital, Ann Arbor
J. L. Egle, M.D.....Northern Michigan TB Sanitarium, Gaylord
J. L. Isbister, M.D.....Michigan Dept. of Health, Lansing
A. H. Kempter, M.D.....1200 Lake Drive, S.E., Grand Rapids
E. J. Klopp, M.D.....1015 Security Tower, Battle Creek
C. P. Mehas, M.D.....300 Hickory Grove, Bloomfield Hills
G. H. Phillips, M.D.....Tuberculosis Sanitarium, Jackson
R. A. Rasmussen, M.D.....1810 Wealthy Street, S.E., Grand Rapids
A. F. Stiller, M.D.....Southwestern Michigan TB Sanatorium, Kalamazoo
C. J. Stringer, M.D.....401 W. Greenlawn Ave., Lansing
J. W. Towey, M.D.....Pinecrest Sanitarium, Powers
Jack Foy Wu, M.D.....810 E. Centre Ave., Kalamazoo
Stewart Yntema, M.D.....331 S. Jefferson, Saginaw

(Continued on Page 1740)

NIAMID*

reduces pain in angina pectoris

NIAMID, in intensive clinical tests, has proved to have a high degree of safety and to be a valuable adjunct in the management of the anginal syndrome. NIAMID produces striking symptomatic improvement in angina patients...

- **reduces frequency of anginal episodes**
- **diminishes severity of attacks**
- **decreases nitroglycerin requirements**
- **renews sense of well-being**

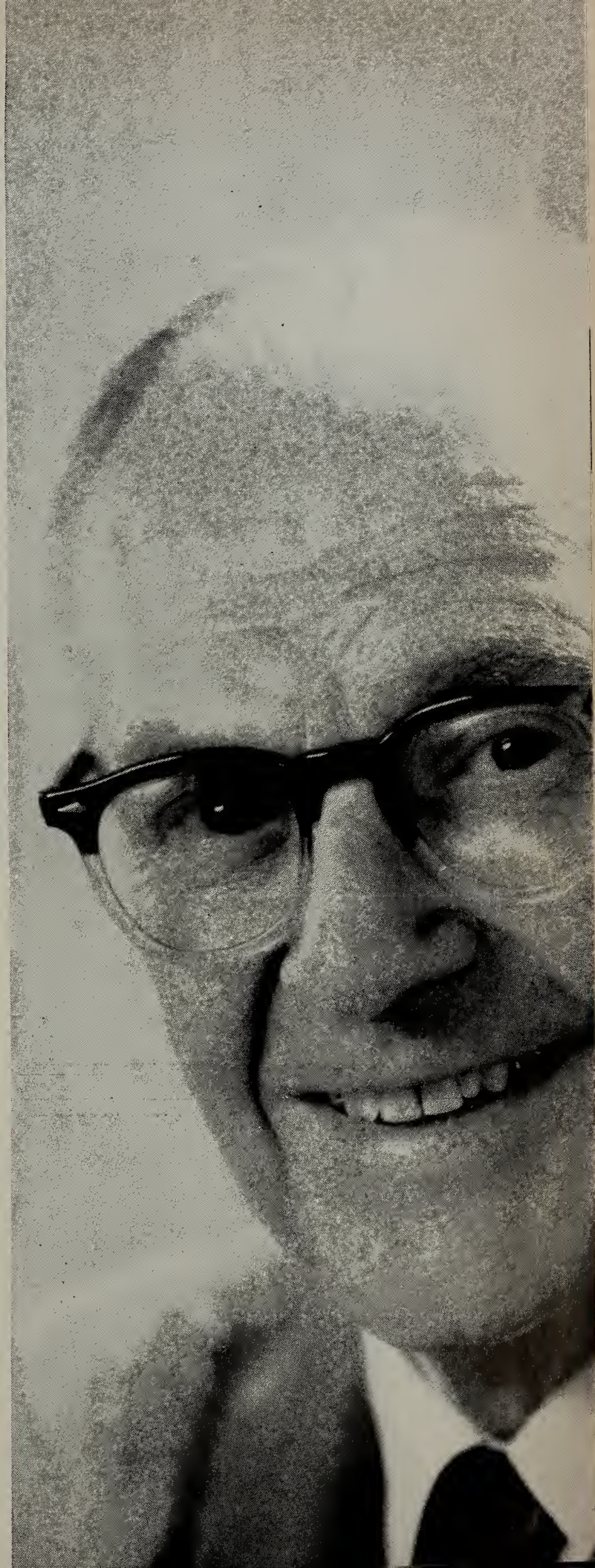
Note: Because of dramatic relief of symptoms and increased sense of well-being in anginal cases, it is advisable to caution the patient against overexertion.

DOSAGE: Start with 75 mg. of NIAMID daily in single or divided doses. After 2 weeks or more, adjust the dosage, depending upon patient response, in steps of one or one-half 25 mg. tablet. Once improvement is seen, gradually reduce dosage to the maintenance level. Many patients respond to NIAMID within a few days, others within 7 to 14 days. NIAMID is available as 25 mg. (pink) and 100 mg. (orange) scored tablets.

A Professional Information Booklet giving detailed information on NIAMID *is available on request from the Medical Department, Pfizer Laboratories, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.*

*Trademark for nialamide

Pfizer *Science for the world's well-being™*



(Continued from Page 1738)

IODIZED SALT COMMITTEE

B. E. Brush, M.D., *Chairman*....2799 W. Grand Blvd., Detroit
H. A. Towsley, M.D., *Vice Chairman*..... University Hospital, Ann Arbor
J. K. Altland, M.D.....Michigan Dept. of Health, Lansing
Wm. H. Beierwaltes, M.D.....1204 Bydding Road, Ann Arbor
J. R. Carney, M.D.....202 N. Park St., Ludington
R. L. Waggoner, M.D.....120 W. Center, St. Louis

OCCUPATIONAL MEDICINE COMMITTEE

O. J. Preston, M.D., *Chairman*....300 N. Chevrolet Ave., Flint
S. E. Andrews, M.D.....224 E. Cedar St., Kalamazoo
J. G. Beall, M.D.....118½ E. Front St., Traverse City
T. I. Boileau, M.D...2075 E. Fourteen Mile, Birmingham
E. B. Cudney, M.D.....Pontiac Motor Company, Pontiac
Edwin De Jongh, M.D.....Pontiac Motor Division, Pontiac
J. H. Ganschow, M.D.....1840 Holbrook Ave., Detroit 12
E. A. Irvin, M.D.....Ford Motor Company, Dearborn
F. E. Kolb, M.D.....128 Calumet St., Calumet
D. F. Kudner, M.D.....435 Wildwood Ave., Jackson
C. P. McCord, M.D.....University Hospital, Ann Arbor
G. P. Moore, M.D.....302 E. Chapin, Cadillac
R. D. Mudd, M.D.....Chevrolet Grey Iron Foundry, Saginaw
P. J. Ochsner, M.D.....Fisher Body Plant, Lansing
D. M. Richmond, M.D.....314½ State St., St. Joseph
N. W. Scholle, M.D.....2500 Peck Street, Muskegon Heights
M. W. Shellman, M.D...110 E. Fulton St., Grand Rapids
S. D. Steiner, M.D.....3044 W. Grand Blvd., Detroit 2
W. E. VanGelder, M.D.....Hackley Union Bank Bldg., Muskegon
A. H. Whittaker, M.D.....1427 E. Jefferson, Detroit
J. K. Wright, M.D.....Anderson Bldg., Traverse City

ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

J. M. Wood, M.D., *Chairman*.....815 E. Maple Street, Mt. Pleasant
A. B. Aldrich, M.D.....503 Sheldon Ave., Houghton
Wm. G. MacKersie, M.D...18205 Roselawn Ave., Detroit
E. H. Meisel, Jr., M.D.....148 E. Main St., Midland
R. E. Reagan, M.D.....232 Windsor, Benton Harbor
D. A. Young, M.D.....14807 W. McNichols Road, Detroit

ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

J. W. Rice, M.D., *Chairman*.....421 McNeal St., Jackson
Ralph E. Carlson, M.D.....500 Stephenson Ave., Iron Mountain
L. E. Holly, II, M.D.....876 N. Second St., Muskegon
D. B. Johnson, M.D.....320 Townsend St., Lansing
G. E. Millard, M.D.....2900 W. Grand Blvd., Detroit
A. S. Narotzky, M.D.....Miracle Circle, Ishpeming
T. J. Trapasso, M.D.....521 Ashmun, Sault Ste. Marie
J. A. Witter, M.D.....344 Glendale Avenue, Highland Park 3

STUDY ON PREVENTION OF HIGHWAY ACCIDENTS COMMITTEE

J. R. Rodger, M.D., *Chairman*.....Bellaire
G. H. Agate, M.D.....Michigan Dept. of Health, Lansing
R. T. Blackhurst, M.D.....Blackhurst Bldg., Midland
H. E. DePree, M.D.....216 Bronson Medical Center, Kalamazoo
C. M. Hansen, M.D.....Stanton
W. N. Herbert, M.D.....1223 S. Park, Kalamazoo
A. Z. Howard, M.D.....825 David Whitney Bldg., Detroit
Sidney N. Lyttle, M.D.....615 Mott Foundation Bldg., Flint
W. D. Peterson, M.D.....Box 58, Mesick
C. W. Sellers, M.D.....18545 Schoolcraft, Detroit
H. J. Meier, M.D., *Advisor*..87 W. Pearl Street, Coldwater

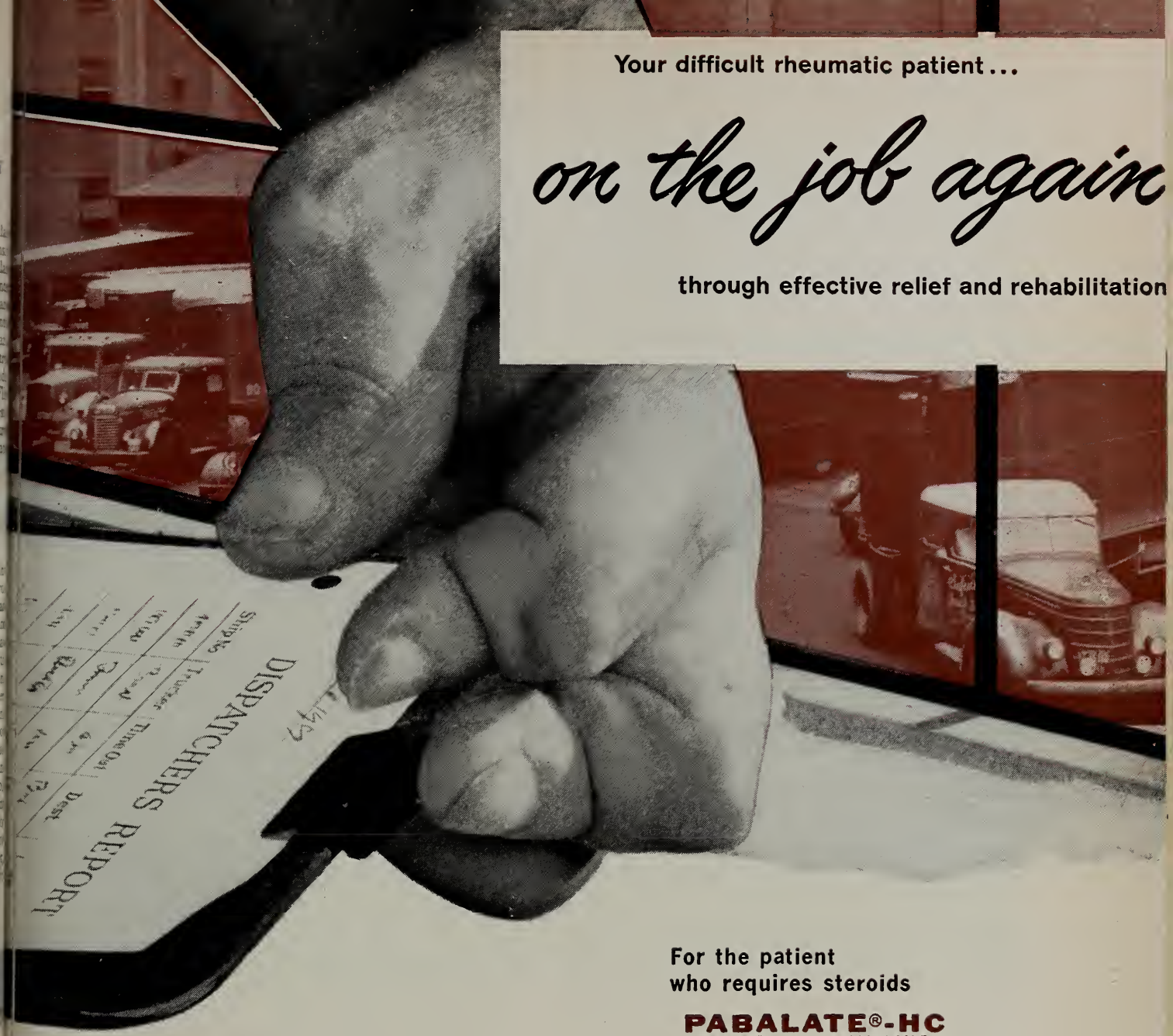
PREVENTIVE MEDICINE COMMITTEE

B. M. Harris, M.D., *Chairman*....27 S. Prospect, Ypsilanti
B. E. Brush, M.D.....2799 W. Grand Blvd., Detroit
J. M. Dorsey, M.D.....65 Moss Street, Highland Park
S. T. Harris, M.D.....27 S. Prospect, Ypsilanti
R. M. Heavenrich, M.D.....1107 Gratiot, Saginaw
A. E. Heustis, M.D.....Michigan Department of Health, Lansing
F. A. Jones, Jr., M.D.....716 Michigan National Tower, Lansing
W. M. LeFevre, M.D.....315 W. Clay, Muskegon
H. M. Nelson, M.D.....3001 W. Grand Blvd., Detroit
O. J. Preston, M.D.....300 N. Chevrolet Ave., Flint
A. H. Price, M.D.....62 W. Kirby, Detroit
R. L. Rapport, M.D.....715 Mott Foundation Bldg., Flint
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
H. A. Towsley, M.D.....University Hospital, Ann Arbor
W. S. Reveno, M.D., *Advisor*.....958 Fisher Building, Detroit

CHILD WELFARE COMMITTEE

R. M. Heavenrich, M.D., *Chairman*.....1107 Gratiot Ave., Saginaw
W. S. Jones, Jr., M.D., *Vice Chairman* ....1146 Tenth Ave., Menominee
R. T. Blackhurst, M.D.....Blackhurst Bldg., Midland
C. E. Booher, M.D., ...1810 Wealthy Street, S.E., Grand Rapids
V. G. Chabut, M.D.....206 W. Dunlap, Northville
H. C. Comstock, M.D.....1031 E. Michigan Ave., Lansing
E. L. Cooper, M.D.....414 David Whitney Bldg., Detroit
Goldie B. Corneliuson, M.D.....Michigan Dept. of Health, Lansing
A. J. Cortopassi, M.D.....324 S. Washington, Saginaw
Carleton Dean, M.D.....252 Hollister Bldg., Lansing
N. E. Durocher, M.D.....605 Pontiac State Bank Bldg., Pontiac
R. G. Ferris, M.D.....55 W. Maple St., Birmingham
A. C. Gholz, M.D.....208 Sperry Bldg., Port Huron
Bruce Graham, M.D.....2402 Vinewood Blvd., Ann Arbor
J. P. Klein, M.D.....16 W. Sheridan, Fremont
O. L. Lepard, M.D.....104 S. Lakeview, Sturgis
F. J. Margolis, M.D.....2901 S. Westnedge, Kalamazoo
Don Marshall, M.D.....252 E. Lovell, Kalamazoo
R. J. Mason, M.D.....618 N. Woodward Ave., Birmingham
J. C. Montgomery, M.D.....1810 Wealthy St., S.E., Grand Rapids
W. J. Morrow, M.D.....119 N. James St., Ludington
M. H. Pike, M.D.....224 E. Larkin, Midland

(Continued on Page 1742)



Your difficult rheumatic patient...

on the job again

through effective relief and rehabilitation

For the patient who does not require steroids

PABALATE®

Reciprocally acting nonsteroid antirheumatics . . . more effective than salicylate alone.

In each enteric-coated tablet:

Sodium salicylate U.S.P.....0.3 Gm. (5 gr.)
Sodium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

or for the patient who should avoid sodium

PABALATE®-Sodium Free

Pabalate, with sodium salts replaced by potassium salts.

In each enteric-coated tablet:

Potassium salicylate .....0.3 Gm. (5 gr.)
Potassium para-aminobenzoate .....0.3 Gm. (5 gr.)
Ascorbic acid .....50.0 mg.

For the patient who requires steroids

PABALATE®-HC

(PABALATE WITH HYDROCORTISONE)

Comprehensive synergistic combination of steroid and nonsteroid antirheumatics... full hormone effects on low hormone dosage . . . satisfactory remission of rheumatic symptoms in 85% of patients tested.

In each enteric-coated tablet:

Hydrocortisone (alcohol) ..... 2.5 mg.
Potassium salicylate ..... 0.3 Gm.
Potassium para-aminobenzoate.. 0.3 Gm.
Ascorbic acid .....50.0 mg.

PABALATE® Robins PABALATE®-HC

For steroid or non-steroid therapy: SAFE DEPENDABLE ECONOMICAL

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA • Ethical Pharmaceuticals of Merit since 1878

(Continued from Page 1740)

H. A. Towsley, M.D.....University Hospital, Ann Arbor
A. L. Tuuri, M.D.....Mott Clinic, Hurley Hosp., Flint
E. H. Watson, M.D.....280 Barton Drive, N., Ann Arbor
C. F. Wible, M.D.....Sebewaing
R. K. Wise, M.D.....15801 W. McNichols Rd., Detroit

SCIENTIFIC RADIO COMMITTEE

H. A. Towsley, M.D., *Chairman*.....University Hospital Ann Arbor
S. J. Behrman, M.D.....University Hospital, Ann Arbor
H. R. C. Eddy, M.D.....Mill Road, Adrian
R. D. Feeheley, M.D.....3521 State, Saginaw
C. T. Flotte, M.D.....University Hospital, Ann Arbor
R. H. Howell, M.D.....2710 Maple St., Midland
J. W. Rice, M.D.....421 McNeal St., Jackson
G. H. Scott, Ph.D., Dean.....Wayne State University College of Medicine, Detroit
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
R. W. Teed, M.D.....215-A S. Main, Ann Arbor

GERIATRICS COMMITTEE

A. Hazen Price, M.D., *Chairman*....62 W. Kirby, Detroit 2
F. C. Swartz, M.D., *Vice Chairman*....215 N. Walnut St., Lansing
F. W. Baske, M.D.....923 Maxine St., Flint
H. B. Bennett, M.D.....942 Maccabees Bldg., Detroit 2
J. P. Bentley, M.D.....404 McNeal St., Jackson
J. R. Brink, M.D.....54 College Ave., S.E., Grand Rapids
S. E. Chapin, M.D.....125 N. Military, Dearborn
J. W. Clay, M.D.....1146 Tenth Ave., Menominee
E. F. Crippen, M.D.....126½ State St., Mancelona
P. C. Gittins, M.D.....732 Maccabees Bldg., Detroit 2
A. H. Hirschfeld, M.D.....829 Fisher Bldg., Detroit
Jack Rom, M.D.....8600 W. McNichols, Detroit 35
Herbert Rosenbaum, M.D.....19776 Snowden Ave., Detroit 35
C. H. Ross, M.D.....715 University Ave., N., Ann Arbor
L. F. Segar, M.D.....1410 David Broderick Tower, Detroit 26
C. W. Sellers, M.D.....18545 Schoolcraft, Detroit
V. K. Volk, M.D.....Saginaw County Hospital, Box 65, Saginaw
S. C. Wiersma, M.D.....Hackley Union Bldg., Muskegon

LEGAL AFFAIRS COMMITTEE

L. A. Drolett, M.D., *Chairman*....3526 W. Saginaw St., Lansing
O. B. McGillicuddy, M.D., *Vice Chairman*.....1816 Michigan National Tower, Lansing
A. B. Aldrich, M.D.....503 Sheldon Ave., Houghton
J. C. Elliott, M.D.....207½ E. Front St., Buchanan
O. K. Engelke, M.D.....720 E. Catherine St., Ann Arbor
K. H. Johnson, M.D.....1116 Michigan National Tower, Lansing
P. T. Mulligan, M.D.....91 Cass St., Mt. Clemens
J. S. Rozan, M.D.....103 N. Washington Ave., Lansing
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
H. A. Towsley, M.D.....University Hospital, Ann Arbor
R. V. Walker, M.D.....1255 David Whitney Bldg., Detroit

MENTAL HEALTH COMMITTEE

J. M. Dorsey, M.D., *Chairman*....65 Moss St., Highland Park
Z. S. Bohn, M.D., *Vice Chairman*.....327 Professional Bldg., Detroit
C. P. Barker, M.D.....318 Wabeek Bldg., Birmingham
H. W. Bird, M.D.....1313 E. Ann St., Ann Arbor
P. N. Brown, M.D.....Northville State Hospital, Northville
W. E. Clark, M.D.....136 W. Ash St., Mason
R. O. Creager, M.D.....909 Wheaton, Kalamazoo
T. J. Heldt, M.D.....Henry Ford Hospital, Detroit
L. N. Hershey, M.D.....Route 1, 31275 Franklin Rd., Birmingham
A. H. Hirschfeld, M.D.....829 Fisher Bldg., Detroit
W. T. Hyslop, M.D.....1469 N. Harrison, Saginaw
R. A. Jaarsma, M.D.....Medical Arts Bldg., Flint
R. F. Kernkamp, M.D.....1204 David Broderick Tower, Detroit
I. A. LaCore, M.D.....622 Riker Bldg., Pontiac
M. H. Marks, M.D.....8233 W. Chicago, Detroit
J. J. Marra, M.D.....461 W. Huron St., Pontiac
C. J. Mumby, M.D.....1409 Pontiac State Bank Bldg., Pontiac
W. H. Obenauf, M.D.....Box A, Pontiac
D. D. Salon, M.D.....108 E. Front St., Traverse City
R. W. Waggoner, M.D.....3333 Geddes Rd., Ann Arbor
H. B. Zemmer, M.D., *Advisor*.....311 Clay St., Lapeer

ETHICS COMMITTEE

H. W. Porter, M.D., *Chairman* (1962)....505 Wildwood Ave., Jackson
W. L. Harrigan, M.D., *Vice Chairman* (1962)....408 E. Broadway, Mt. Pleasant
F. M. Doyle, M.D. (1961)....611 Howard St., Kalamazoo
F. H. Lindenfeld, M.D. (1962)....8 N. St. Joseph, Niles
J. D. Miller, M.D. (1962)....50 College Ave., S.E., Grand Rapids
E. A. Oakes, M.D. (1960).....401 River St., Manistee
E. A. Osius, M.D. (1960)....901 David Whitney Bldg., Detroit
A. Hazen Price, M.D. (1962).....62 W. Kirby, Detroit
P. K. Stevens, M.D. (1961).....201 Michigan Theatre Bldg., Flint
W. F. Strong, M.D. (1960).....800 Chippewa St., Ontonagon

PUBLIC RELATIONS COMMITTEE

R. W. Teed, M.D., *Chairman*.....215-A S. Main St., Ann Arbor
A. B. Gwinn, M.D., *Vice Chairman*....City Bank Bldg., Hastings
R. E. Anderson, M.D.....3002 Mason, Flint
S. E. Andrews, M.D.....224 E. Cedar St., Kalamazoo
H. G. Benjamin, M.D.....72 Sheldon Ave., S.E., Grand Rapids
F. C. Brace, M.D.....1498 Lake Drive, S.E., Grand Rapids
H. F. Bradfield, M.D.....3008 E. Grand Blvd., Detroit
J. W. Bunting, M.D.....110 N. 1st Ave., Alpena
F. J. Busch, M.D.....1731 N. Michigan Ave., Saginaw
S. E. Chapin, M.D.....125 N. Military, Dearborn
J. R. Dehlin, M.D.....8 South 11th St., Gladstone
W. J. Dinnen, Jr., M.D.....804 Huron, Port Huron

(Continued on Page 1744)



COUGH ***promptly curbed*** by homarylamine—non-narcotic antitussive with the approximate potency of codeine.

INFECTION ***combated*** by three nonsystemic antibiotics—each active against common mouth and throat pathogens, all with relatively low sensitization potentials.

IRRITATION ***soothed*** by benzocaine—a topical anesthetic that promotes prolonged relief of inflamed or irritated tissues.

PENTAZETS® troches

Homarylamine · Bacitracin · Tyrothricin · Neomycin · Benzocaine

NEW PINEAPPLE FLAVOR Overwhelmingly selected by a taste panel.

Available to your patients on your prescription only.

DOSAGE: Three to five troches daily for three to five days.

SUPPLIED: Vials of 12.

MSD **MERCK SHARP & DOHME** DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

PENTAZETS is a trademark of Merck & Co., Inc.

(Continued from Page 1742)

G. A. Drake, M.D.....1109 E. Mitchell St., Petoskey
H. D. Dykhuizen, M.D.....710 Hackley Union Bldg., Muskegon
E. H. Fenton, M.D.....15125 Grand River Ave., Detroit
R. A. Frary, M.D.....423 E. Elm Ave., Monroe
W. G. Gamble, Jr., M.D.....2010 Fifth Ave., Bay City
L. E. Grate, M.D.....112 Clinton St., Charlevoix
H. C. Hansen, M.D.....417 Post Bldg., Battle Creek
L. T. Henderson, M.D.....14814 E. Warren, Detroit
W. J. Herrington, M.D.....Bad Axe
S. L. Hoffman, M.D.....State Sanitarium, Howell
D. P. Hornbogen, M.D.....101 S. Front St., Marquette
J. M. Jacobowitz, M.D...49½ N. Main St., Three Rivers
David Kahn, M.D.....401 American State Bank Bldg., Lansing
E. G. Kiehler, M.D.....1444 W. Genesee St., Lapeer
R. C. Kingswood, M.D.....90 E. Warren, Detroit 1
J. L. Leach, M.D.....3007 Industrial Ave., Flint
E. C. Long, M.D.....2626 Rochester, Detroit
F. E. Luger, M.D.....303 N. Jefferson, Saginaw
G. E. Millard, M.D.....2900 W. Grand Blvd., Detroit 2
R. C. Peckham, M.D.....Gaylord
G. N. Petroff, M.D.....1301 Pontiac State Bank Bldg., Pontiac
A. C. Pfeifer, M.D.....11610 N. Saginaw, Mt. Morris
W. Z. Rundles, Sr., M.D.....304 First National Bldg., Flint
S. R. Russell, M.D.....104 N. Oakland St., St. Johns
Sydney Scher, M.D.....132 Cass Ave., Mt. Clemens
E. W. Schnoor, M.D.....26 Sheldon Ave., S.E., Grand Rapids
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
E. L. Spoehr, M.D.....22832 Woodward, Ferndale
W. F. Strong, M.D.....800 Chippewa St., Ontonagon
C. K. Stroup, M.D.....2002 Court St., Flint
R. L. Thirlby, M.D.....711 Second St., Traverse City
C. L. Weston, M.D.....Matthews Bldg., Owosso
J. M. Wood, M.D.....815 E. Maple St., Mt. Pleasant
B. T. Montgomery, M.D., *Advisor*.....301 E. Spruce, Sault Ste. Marie
E. S. Oldham, M.D., *Advisor*.....Breckenridge
A. E. Schiller, M.D., *Advisor*.....1737 David Whitney Bldg., Detroit
T. P. Wickliffe, M.D., *Advisor*....219 Sixth St., Calumet

MEDIATION COMMITTEE

L. R. Leader, M.D., *Chairman* (1960).....1129 David Whitney Bldg., Detroit
D. R. Boyd, M.D. (1960).....1735 Peck St., Muskegon
A. E. Gamon, M.D. (1960).....2004 Court St., Saginaw
E. B. Johnson, M.D. (1962).....412 Water St., Allegan
R. P. Lytle, M.D. (1961).....10 Peterboro St., Detroit
G. B. Saltonstall, M.D. (1962).....Charlevoix
E. F. Sladek, M.D. (1962).....123 E. Front St., Traverse City
R. W. Teed, M.D. (1961)..215-A S. Main St., Ann Arbor

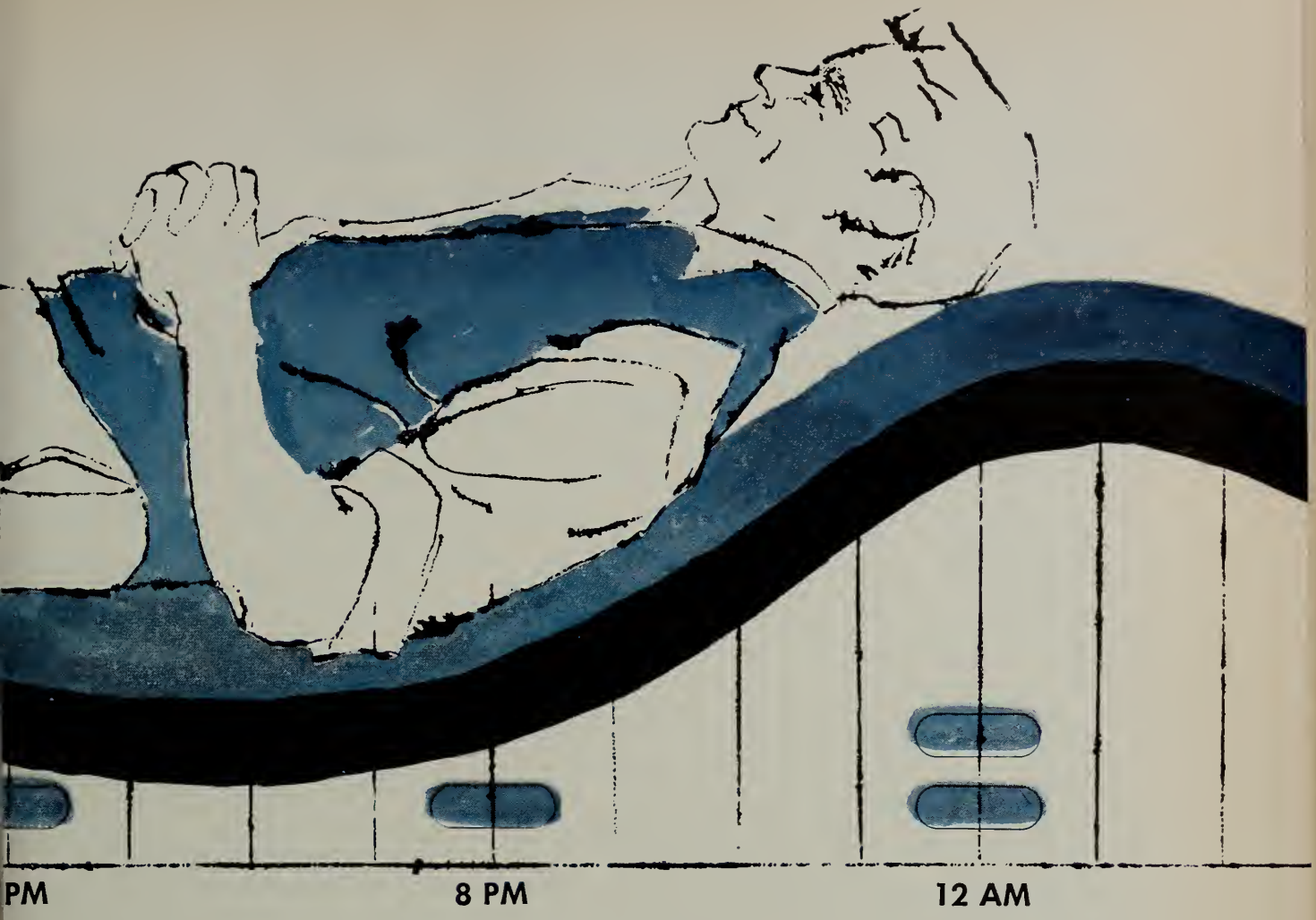
POSTGRADUATE MEDICAL EDUCATION COMMITTEE

J. M. Sheldon, M.D., *Chairman*.....University Hospital, Ann Arbor
E. I. Carr, M.D., *Vice Chairman* (1961).....300 W. Ottawa St., Lansing
H. H. Cummings, M.D. (1961).....216 S. State St., Ann Arbor
Milton A. Darling, M.D. (1961).....673 Fisher Bldg., Detroit
A. C. Furstenberg, M.D. (1960).....University Hospital, Ann Arbor
J. R. Heidenreich, M.D. (1962).....Daggett
R. M. McKean, M.D. (1961).....1515 David Whitney Bldg., Detroit
E. J. Neill, M.D. (1961).....8045 E. Jefferson, Detroit
J. M. Robb, M.D. (1960).....633 David Whitney Bldg., Detroit
D. J. Sandweiss, M.D. (1962).....15201 W. McNichols, Detroit
G. H. Scott, Ph.D. (1961).....1401 Rivard, Detroit
R. M. Stow, M.D. (1961)..512 Michigan National Tower, Lansing
H. A. Towsley, M.D. (1960).....University Hospital, Ann Arbor
S. B. Winslow, M.D. (1960).....1509 Security National Bank Bldg., Battle Creek
D. H. Kaump, M.D., *Advisor* (1960)....2500 W. Grand Blvd., Detroit 8
F. P. Rhoades, M.D., *Advisor* (1960)....5057 Woodward Ave., Detroit 2

PROFESSIONAL MANAGEMENT • FOR PHYSICIANS AND DENTISTS
since 1932 PM ®

Battle Creek	WO 5 5253
Detroit	WO 1-6259
Grand Rapids	GL 6-1781
Saginaw	SW 2-7661

TESTED — Rx — APPROVED
By
Professional Management
THE NEW PM WRITING BOARD
ONE WRITING ONLY
Produces a receipt
Provides an up-to-date statement
Posts the patient's account
Permits photo-type statements
Makes the day book record
Minimizes bookkeeping



Phenaphen and Phenaphen with Codeine provide
a wide range of analgesia, plus complete dosage flexibility,
to match varying pain requirements.

Yours to prescribe:

The **right** dose of the **right** potency at the **right** time.

Phenaphen

Basic non-narcotic formula

For mild to moderate pain

Each capsule contains:

Phenacetin (3 gr.)	194.0 mg.
Acetylsalicylic acid (2½ gr.)	162.0 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine sulfate	0.031 mg.

Phenaphen No. 2

Phenaphen with Codeine Phosphate ¼ gr. (16.2 mg.)

For moderate to severe pain

Phenaphen No. 3

Phenaphen with Codeine Phosphate ½ gr. (32.4 mg.)

For severe or stubborn pain

Phenaphen No. 4

Phenaphen with Codeine Phosphate 1 gr. (64.8 mg.)

For stubborn or intense pain—to obviate or postpone use of morphine or addicting synthetic narcotics

DOSAGE: One or two capsules as required.

You and Your Business

MEDICARE

The Defense Department has asked that four particular problems in the administration of the Medicare Program be invited to the attention of Michigan doctors of medicine.

And in doing so, Theodore J. Krause, manager of the Medicare Division of Michigan Medical Service, offers assistance to doctors to answer any questions they may have.

These are the four problems:

(1) **Delay in Medicare Billing.** Delayed buildings cause many problems and added expense to all parties who are interested in settling the matter of payment as soon as practicable. To help discourage late reporting, the Government has imposed a one-year limit after completion of care for the submission of the Medicare claim. Explanatory statements from the physician must accompany any claim older than one year.

(2) **Incomplete Claims.** The Government reports that about 40 per cent of the Medicare claims are incomplete. To insure prompt payment, the Government urges doctors to be sure to include the patient's identification information (from his Identification and Privilege Card DD form 1173) and the patient's signature.

(3) **Management of Suspected and/or Proven Malignancies.** The Government will consider such case eligible when in the opinion of the cognizant medical authority, treatment is urgently required and performed in a hospital immediately upon discovery of the condition. Patients with suspected and/or proven malignancy will be considered as acutely ill patients and thus eligible for care under the Medicare Program. Doctors are urged to become informed about the exceptions in this area of medical care.

(4) **Potential Restoration of Benefits.** The Government points out that any reinstatement of care —which may be rumored in the news media—will be officially announced when any such reinstatement decisions are made.

SURGERY FOR PREVENTION OF CANCER DONE TWICE AS OFTEN AS DECADE AGO

Surgery for the treatment or prevention of cancer has become one of the most common procedures among all types of surgery performed in the United States.

Marked increases also have been made in the frequency of surgery in general over a period of a decade, and there has been a dramatic shift in the type of surgery being done in the nation, reports the Health Insurance Institute.

The study disclosed that one out of seven operations among nearly 100,000 selected claims was aimed at removing or preventing cancer. In the 1947 study, cancer surgery was responsible for approximately one out of fourteen claims. Some 94 per cent of the cancer surgery in the 1957 report was for the removal of benign tumors or cysts and the remainder for the removal of various types of malignant tumors.

In addition to increases in cancer prevention surgery, the study showed claims from sixty-eight operations on the heart where the 1947 study reported none. On the other hand, appendectomies and tonsillectomies have become less common.

Among dependent wives and children covered by the group insurance, tonsillectomies were the reason for 37 per cent of the 1947 claims and appendectomies 11 per cent. The new study showed these procedures to be responsible, respectivly, for 18 per cent and 4 per cent of the claims.

Multiple surgical procedures, where two or more operations are performed at one time, also are becoming common. Some 12 per cent of the claims were for multiple procedures.

Out-of-hospital surgical procedures are growing in frequency. The new survey showed 43 per cent of the claims for out-patients and out-of-hospital cases, compared with 18 per cent in the 1947 study.

The report was based on a 1957 survey by the Society of Actuaries of more than 100,000 group surgical insurance claims. The survey was compared, where possible, with a similar study made in 1947.

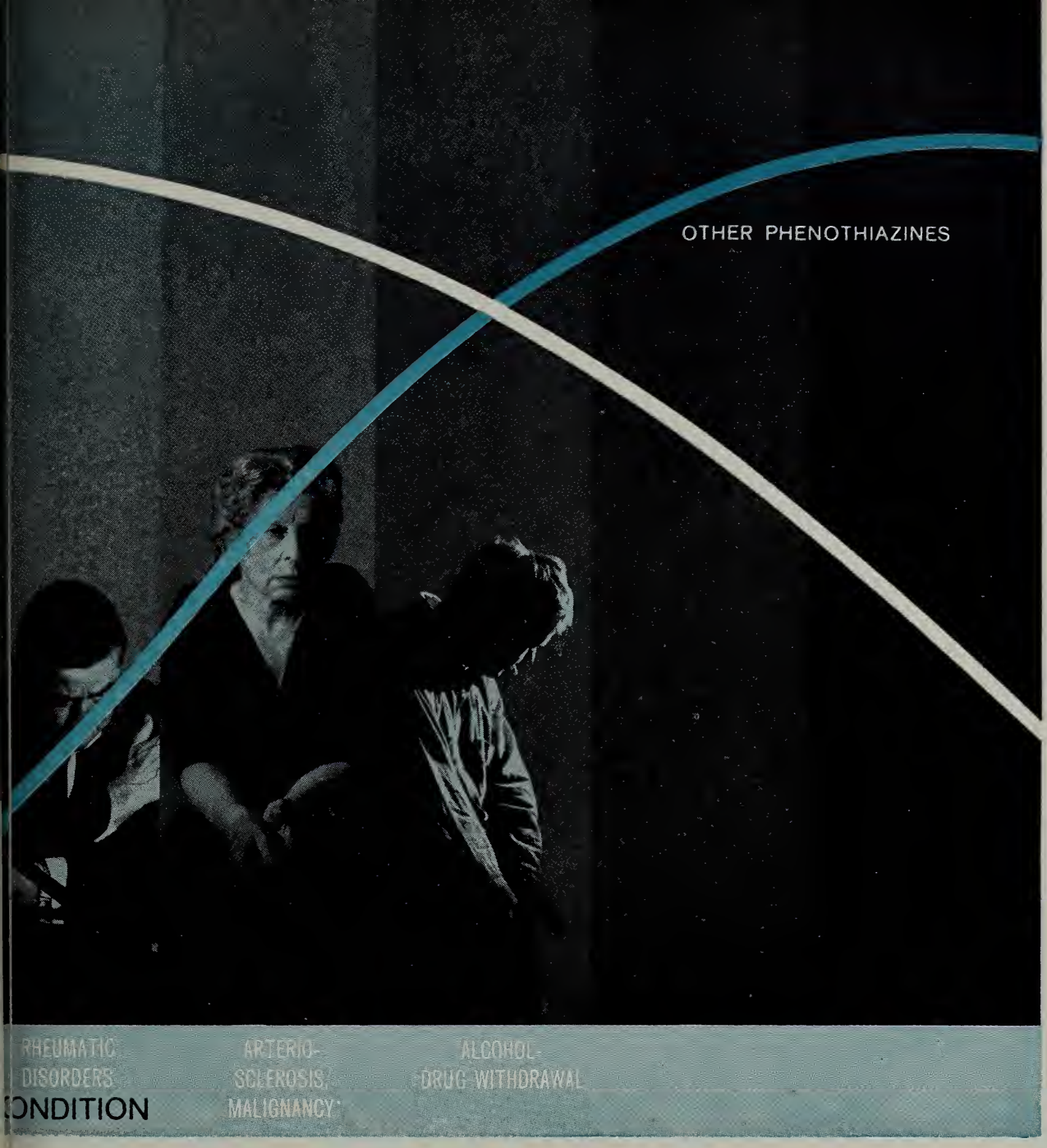
SEEK TO CLARIFY MD MILITARY STATUS

W. J. Myers, Colonel, AGC, deputy state director of Michigan Selective Service System, offers his help to any physicians who have questions about military status in records to residency training. He invites inquiries at his office, Arnold Building, 1120 May Street, Lansing.

Colonel Myers reports that questions arise because some hospitals and medical schools are accepting physicians for residency training without regard to their liability for military service.

Selective Service Boards have been advised that a physician should not be granted occupational deferment in Class II-A to complete residency

(Continued on Page 1774)



ge: *Mild to moderate cases*—average starting dose, one 10 mg. or one 25 mg. tablet e or four times daily. *Moderate to severe*—average starting dose, one 50 mg. tablet times daily. *Supplied:* 10 mg., 25 mg., and 50 mg. tablets.

li, T., and Levy, H.: Clinical report. cited with permission. 2. Wetzler, R. A.. and Phillips, R. M.: Clinical . cited with permission. 3. Prigot, A.: Clinical report, cited with permission. 4. Gosline, E., *et al.*: *Am. J. Psychiat.* 9 (April) 1959. 5. Turvey, S. E. C.: Clinical report, cited with permission.

Tentone

ypromazine Maleate

Lederle

RLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

SEEK TO CLARIFY MD MILITARY STATUS

(Continued from Page 1768)

training unless he is a participant in a residency training program sponsored by the Armed Forces or the U. S. Public Health Service or unless the local board is convinced that the physician's services while in residency training are absolutely essential to the operation of the hospital.

CONDUCT FOUR REGIONAL HEALTH CONFERENCES

A series of four regional health conferences were scheduled in different areas of the state during October and November by the Michigan Health Council.

The regional meetings—this year only—will replace the annual Michigan Rural Health Conference. Reason for the deferment of the single annual conference is because the National Rural Health Conference sponsored by the American Medical Association will meet in Grand Rapids in 1960.

"The regional meetings will stimulate attendance at this larger meeting," MHC President Otto K. Engleke, M.D., said.

Among the features of the meetings were desk side conferences for diseases and personal chats on health careers between guest students and career experts.

The first conference was held October 29 at Northern Michigan College in Marquette. The second, November 5 at Western Michigan University in Kalamazoo. The third regional conference took place November 12 at Central Michigan University at Mount Pleasant and the last meeting in Detroit at the McGregor Memorial Conference Center, Wayne State University, on November 19.

Local medical society representatives took part in all phases of the conference.

$174.6 MILLION GIVEN BY NIH IN PAST YEAR

National Institutes of Health awarded a total of 9,377 research grants and construction subsidies, aggregating $174,640,724, during year ending June 30, 1959. Full details on fiscal year's record of grants and awards are supplied in annual report. This volume contains names of all grantees and titles of projects in geographical order. Next to appear will be a second part devoted to research fellowships, training grants to institutions and traineeships.

PRICE INDEX FALLS BUT MEDICAL CARE GOES UP

The all-item consumer price index declined 0.1 per cent between July and August but the "Medical Care" category rose 0.3 per cent—from 151.0 to 151.4 (1947-49—100). Bureau of Labor Statistics attributed this increase "primarily to higher rates for hospitalization insurance." If professional services alone are considered (dental as well as medical), the index for August stands at 157.0.

For the ten selected cities whose price indices were singled out in the monthly report, the range for "Medical Care" was from Cleveland's 168.1 down to 132.9 for Scranton, Pa. The others: Chicago, 159.0; Philadelphia, 158.5; Washington, 148.5; Seattle, 151.3; Los Angeles, 146.7; New York, 139.8; Houston, 135.3.

TOTAL MEDICAL CARE BILL RUNS $23 BILLION A YEAR

In the year ended June 30, 1958, it is estimated that total expenditures for health and medical care were about $23 billion. Private outlay is figured at $17,294,000,000 and public expenditures, $5,443,700,000. Construction of medical and hospital facilities accounts for about $1 billion of total, remainder having been expended for health services, drugs and medical research. These estimates are taken from a report by Mrs. Ida C. Merriam which will appear in Social Security Bulletin for October.

Public funds accounted for 10 per cent of personal health care in 1928 to 1929 and 21 per cent in 1957 to 1958. Health insurance benefits, almost non-existent in 1928 to 1929, covered 18 per cent of personal health care by 1957 to 1958. Direct payments by consumers met 57 per cent of such costs and industrial in-plant services and philanthropy about four per cent in the later year.

FEDERAL HEALTH LEGISLATION

One major health program was launched by the United States Congress during its 1959 fall session. The Senate on September 15, voted S 2126, a contributory medical insurance plan that will cover two million Federal employees and three million dependents. The Federal government will pay half of the total estimated annual costs of $222 million.

The 1960 medical legislation docket is expected to look very much like the 1959 list. It will include the Forand bill, the Keogh-Simpson bill and other bills calling for compulsory social security coverage for physicians. And Senator George A. Smathers (D-Fla.) may offer a bill to authorize Congress to investigate "ballooning drug costs."

PRECAUTIONS AGAINST AUTO THEFT

1. Never leave your key in the ignition when you park the car. Undoubtedly many doctors are careless in this respect, especially when hurrying into a house on an emergency call. The street looks deserted, the neighborhood looks quiet. It doesn't enter the doctor's mind that his car might not be around when he gets through with his call.

(Continued on Page 1776)

For the first time

CONVENIENCE and ECONOMY

for that all-important first dose of broad-spectrum antibiotic therapy

New

TERRAMYCIN®
brand of oxytetracycline

INTRAMUSCULAR SOLUTION



Initiation of therapy in *minutes after diagnosis* with new, ready-to-inject Terramycin Intramuscular Solution provides maximum, sustained absorption of potent broad-spectrum activity.

...and for continued, compatible, coordinated therapy

COSA-TERRAMYCIN®
oxytetracycline with glucosamine

CAPSULES

Continuation with oral Cosa-Terramycin every six hours will provide highly effective antibacterial serum and tissue levels for prompt infection control.

The unsurpassed record of clinical effectiveness and safety established for Terramycin is your guide to successful antibiotic therapy.

Supply:
*Terramycin Intramuscular Solution**
100 mg./2 cc. ampules
250 mg./2 cc. ampules

Cosa-Terramycin Capsules
125 mg. and 250 mg.

Cosa-Terramycin is also available as:
Cosa-Terramycin Oral Suspension — peach flavored, 125 mg./5 cc., 2 oz. bottle
Cosa-Terramycin Pediatric Drops — peach flavored, 5 mg./drop (100 mg./cc.), 10 cc. bottle with plastic calibrated dropper

Complete information on Terramycin Intramuscular Solution and Cosa-Terramycin oral forms is available through your Pfizer Representative or the Medical Department, Pfizer Laboratories.

*Contains 2% Xylocaine® (lidocaine), trademark of Astra Pharmaceutical Products, Inc.

Pfizer
Science for the world's well-being™

PFIZER LABORATORIES, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.

PRECAUTIONS AGAINST AUTO THEFT

(Continued from Page 1774)

Acquire the habit of slipping the keys out of the lock and into your pocket. The action only takes a second.

2. Try not to park on the dim side of the street. If late at night and in a strange part of town, leave your car under a street light. It may have a little deterrent effect.

3. Be careful what you do with your duplicate set of keys. Don't secrete them around the car. Thieves are pretty familiar with such tricks.

4. Give some thought to the idea of a burglar alarm system in your garage.

5. Make a note of the serial number on your car keys and then deface the numbers.

6. Do not leave your registration or driver's license in the glove compartment. If a thief is stopped by the police, he can show your registration to prove that the vehicle is his.

7. Don't tempt others by leaving packages in your car which can be seen by the casual passerby. Sometimes juvenile delinquents will break into a car just to see what is in the packages and then drive it away as an afterthought.

8. Do not leave your car parked in one place for a long time without making periodic checks. This is particularly true so far as airports, railroad stations and the like are concerned.

9. Try to claim your car immediately if it is delivered to you from a garage. Often the garage man will leave the keys hooked over the sun visor. Stealing this car would be simple.

10. Have a good lock on your garage door and be sure that the door is locked whenever your car is in the garage.

11. Do not forget to demand a claim check whenever you leave your car in a parking lot. Otherwise you have no way of proving that the car was ever left there.

"A few thoughtful acts by the physician will spare himself and the police a lot of worry and trouble. This is one form of interprofessional cooperation by which the physician has nothing to lose and everything to gain."—"The Doctor & The Law," *Newsletter,* June, 1959.

A.H.A. REVERSES STAND

The American Hospital Association, at its fall annual meeting, voted to inspect hospitals which allow osteopaths to practice under the "general supervision" of doctors of medicine. This action reverses a previous AHA stand. The inspection program is termed "voluntary," however only inspected hospitals are "listed" by the AHA and only the listed hospitals are accredited by the Joint Commission.

UMW FUND

A total of $58 million was spent by the United Mine Workers' Welfare and Retirement Fund for medical care benefits and hospital services during its fiscal year ending June 30, 1959. The UMW fund made payments to more than 7,000 private physicians for fees. A total of 81,132 beneficiaries were hospitalized for a total of 1.3 million days. The 1958 payments ran the ten-year UMW disbursements to $180 million to docotors and $270 million to hospitals.

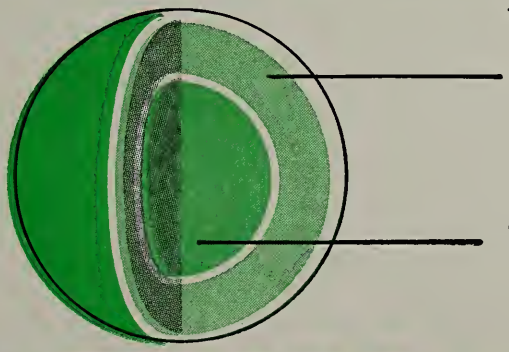
MICHIGAN MEETINGS AND CLINIC DAYS

1959		
November 3	American Cancer Society, Michigan Division, District II Workshop	Adrian
November 5	Michigan Regional Health Conference	Kalamazoo
November 11-12	Michigan Academy of General Practice Post Graduate Clinic	Detroit
November 12	Michigan Regional Health Conference	Mt. Pleasant
November 19	Michigan Regional Health Conference	Detroit
December 1-4	American Medical Clinical Session	Dallas, Texas
1960		
January 30-31	County Secretaries-Public Relations Seminar	Detroit
February 13	Maternal Health Day	Detroit
February 25-27	National Conference on Rural Health	Grand Rapids
March 11-12-13	Michigan Clinical Institute	Detroit
April 13	Genesee County Cancer Day	Flint
May 7	Ingham County Clinic Day	Lansing



the complaint: "nervous indigestion"

the diagnosis: any one of several nonspecific gastrointestinal disorders requiring relief of symptoms by sedative-antispasmodic action with concomitant digestive enzyme therapy. **the prescription:** a new formulation, incorporating in a single tablet the actions of Donnatal and Entozyme. **the dosage:** two tablets three times a day, or as indicated.



the formula: *in the gastric-soluble outer layer:*

Hyoscyamine sulfate	0.0518 mg.
Atropine sulfate	0.0097 mg.
Hyoscine hydrobromide	0.0033 mg.
Phenobarbital (1/8 gr.)	8.1 mg.
Pepsin, N.F.	150 mg.

in the enteric-coated core:

Pancreatin, N.F.	300 mg.
Bile salts	150 mg.

DONNAZYME™

Robins

A. H. ROBINS COMPANY, INCORPORATED • RICHMOND 20, VIRGINIA

Say you saw it in the Journal of the Michigan State Medical Society

PR REPORT

AMA PUBLIC RELATIONS INSTITUTE

"Is Medicine on the Right Track?"

Is medicine on the right track?

Is the non-scientific side of medicine keeping pace with scientific advancement?

These two questions, reports MSMS Public Relations Committee chairman R. Wallace Teed, M.D., Ann Arbor, formed the basis for discussion at the AMA 1959 Public Relations Institute held in Chicago in August.

Doctor Teed reports that keynoter Leo Brown, director of AMA's Communications Division, said it is time for medicine to take a more intense interest in what people say are the problems in the health field.

Brown continued, "Many a piece of legislation stems from what politicians claim is a 'desperate need.' Well let's find out if there is such a need. If there is, let's do something constructive about it. If there isn't, let's tell people about it."

Brown said medicine has the solutions to many of its current problems within its own hands. Physicians must do some creative thinking about the route medicine will travel in the years ahead and activate the men in the profession to play a more active role in developing resourceful programs and providing more community leadership.

He concluded that probably no professional group is less selfishly motivated but is more criticized for selfish interest than the medical profession. He said community service is one important way medicine can identify itself with public interest rather than selfish interest. Doctor Teed also reported that three different views on governmental control of medicine were presented by a German, a Canadian and an American. The three summarized the dangers of socialized medicine on the basis of their individual backgrounds.

Rolf Schlogell, M.D., of Germany, warned that "We have already resigned ourselves in too great a degree to our fate by complying with the complicated machinery of today's social life in surrendering our individual freedoms in order to guarantee a frictionless living together as a whole.

"Already many of us," he continued, "have in this way lost the ability to judge whether or not the abandonment of rights and freedoms is worth the personal price we pay." Because of the state's position in the health insurance of a nation, the German pathologist said, "it automatically loses its neutral position as a mediator between the groups or between individuals."

Under government health systems, he pointed out, "four freedoms are restricted: 1. The freedom of the patient to choose the doctor in whom he has confidence. 2. The freedom of the doctor to refuse further treatment to the patient if the confidence each has in the other—the psychological basis in the healing of illness—is destroyed. 3. The freedom of the doctor to practice his profession according to the rules of medical art and science—free to select the suitable techniques in diagnosis and therapy and to reject those that are necessary or even detrimental. 4. The freedom of supervision of the doctor by professionally qualified groups—free from the authoritative influence of laymen."

THE CANADIAN VIEW

B. E. Freamo, Assistant Secretary of the Canadian Medical Association, described the attitudes of Canadian physicians to government medical control by the phrase, "It can't happen here." During the past two years, however, "we have had to face reality: it can happen here," he said.

"Governments have become more fiscally irresponsible," he continued. "They no longer hesitate to implement a program just because they can't afford it. This suggests the possibility that governments might, for reasons of political opportunism alone, implement a program of medical care insurance."

In Canada, he said, a system of federal government support of hospitals has won "widescale public approval."

"I cannot foresee that the art of medicine can possibly be enhanced under the conditions which must eventually be associated with government control. Further progress in the quality of medical

(Continued on Page 1782)

Blood pressure after Apresoline-Esidrix:

182/98 mm. Hg*

Added benefits: Lowered dosage requirements, fewer side effects • Improved renal blood flow • Relaxed cerebral vascular tone • Excellent diuresis in decompensated cases

SUPPLIED: Apresoline-Esidrix Tablets (orange), each containing 25 mg. of Apresoline hydrochloride and 15 mg. of Esidrix; bottles of 100.

*Response of 56-year-old female patient noted in clinical report to CIBA.

APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA) / ESIDRIX® (hydrochlorothiazide CIBA)

Apresoline®-Esidrix®

Combination Tablets

POTENTIATED ANTIHYPERTENSIVE FOR ADVANCING HYPERTENSION



CIBA

SUMMIT, NEW JERSEY

IS MEDICINE ON THE RIGHT TRACK?

(Continued from Page 1778)

care is not consistent with a program which must stress equality of care."

STATUS QUO IS YIELDING

Claude Robinson, Ph.D., chairman of the board, Opinion Research Corporation, Princeton, N. J., said that since "change is the order of the day" in American society, the medical profession "should anticipate change and lead to it."

"The status quo is yielding everywhere," he observed.

The immediate goals of both medical societies and individual physicians, in Dr. Tobinson's opinion, should be to improve services and cut down on complaints.

"Study the needs of the people—then meet them," he urged. "Every doctor must understand the public view as well as his own view."

He suggested that physicians look on the struggle against socialism as basically "a merchandising problem."

The principal competitor, the federal government, was described by Dr. Robinson as "a clever competitor—one that says it will give the people something for nothing."

He pointed out that the government already has prepared "a health package for the veterans, a package for the old people. If they are successful with the old people, then they will have packages for infants, teenagers, newly-marrieds, then complete socialization of health care."

In his report, MSMS PR Chairman Teed reviewed the afternoon session of the Chicago meeting dealing with Forand-type legislation. Another half-day meeting covered a suggested program for attracting talented high school and college students to the study of medicine.

Genesee Physicians Continue Project on Athletic Injuries

Seeking to protect the high school athlete from injuries, Genesee County Medical Society physicians have moved into the second step of a continuing program.

The first step of the program was a conference on athletic injuries last May. It was attended by more than 100 high school coaches and trainers.

If physical examinations find any boy unfit, he will be excluded from contact sports. In addition, explained Robert E. Anderson, M.D., chairman of the medical society's committee on school health, boys with specific defects which would make them more likely to receive certain injuries will be counseled. The counseling will help the athletes to protect themselves or decrease the chances for injuries.

A third step in the program will be the attendance of a society physician at all games. He will give first aid care and refer follow-up care to the athlete's family physician.

The program is being made available through the efforts of several groups. Besides the medical society, these include the Flint Chapter, American College of Surgeons; Mott Foundation; post-graduate training committees of Flint hospitals, and local hospital interns and residents.

Van Buren M.D.'s Paid Tribute By County Supervisors

Doctors and nurses of Van Buren County were publicly praised by the Board of Supervisors in October for their services donated during the recent countywide immunization campaign.

The published resolution paid "tribute to the dedication and selfless efforts of our medical profession and the nursing profession in this voluntary service to their community."

The supervisors directed that notice of this citation be sent the Michigan State Medical Society. It was the first such note of appreciation coming to the attention of the State Society headquarters, although many, if not all, county societies had participated in similar immunization programs.

January 30-31 Set for County Secretaries-Public Relations Seminar

County society presidents and secretaries, plus PR chairmen, will be among those invited to attend the annual MSMS County Secretaries-Public Relations Seminar in Detroit, Saturday and Sunday, January 30-31. All meetings will be held in the Sheraton-Cadillac Hotel. Meeting co-chairmen are R. M. Duffy, M.D., of Pinckney, and R. W. Teed, M.D., of Ann Arbor.

Just prior to the Seminar, an Editor's Workshop will be conducted for editors of county medical society bulletins. Chairman of the Workshop will be J. C. Heffelfinger, M.D., Coldwater.

Hospital Costs Soaring

The next several years will see hospital costs soaring, doctors' fees holding steady and medical insurance growing until just about everyone is covered for every kind of illness and accident. These predictions, based on extensive interviews with U. S. health officials and physicians, were made by *Life* magazine in the concluding article of its four-part series in October about the American doctor.

The last article quoted experts as saying that it is probably impossible to reduce the costs of running a hospital.



in pneumonia

. . . into a mixed culture of the three organisms commonly involved in pneumonia . . . *K. pneumoniae*, *Diplococcus pneumoniae*, and *Staphylococcus aureus* (in this case a resistant strain) . . . we introduce the five most frequently used antibiotics.

Twenty-four hours later (in this greatly enlarged photograph), note that only *one* of the five leading antibiotics has stopped *all* the organisms, including the resistant staph! This is Panalba.

In your next pneumonia patient . . . in *all* your patients with potentially-serious infections . . . provide this extra protection with your prescription :

Dosage—1 or 2 capsules 3 or 4 times a day.
Supplied—Capsules containing Panmycin phosphate equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin as novobiocin sodium, in bottles of 16 and 100.
Now available: new Panalba Half-Strength Capsules in bottles of 16 and 100.

Panalba*

(Panmycin* Phosphate plus Albamycin*)

The broad-spectrum antibiotic of *first* resort



Upjohn The Upjohn Company Kalamazoo, Michigan

*TRADEMARK, REG. U. S. PAT. OFF.

Twelve Elected to Michigan Medical Service Board

Six new members were elected and six current members re-elected to the board of directors of Michigan Medical Service by the MSMS House of Delegates sitting as Members of the Corporation at the annual meeting of the Corporation at Grand Rapids September 29.

New members, all representing the Michigan State Medical Society, were:

Donald N. Sweeny, Jr., M.D., General Surgeon, Detroit
Ralph R. Cooper, M.D., Internist, Detroit
John W. Rice, M.D., General Practitioner, Jackson
Allan K. Cameron, M.D., Urologist, Saginaw
Michael Kozonis, M.D., Internist, Pontiac
John S. DeTar, M.D., General Practitioner, Milan. Dr. DeTar had previously served on the board of directors from 1946 to 1955.

These newly-elected members replaced W. A. Hyland, M.D., of Grand Rapids; William S. Jones, M.D., of Menominee; Ellery Oakes, M.D., of Manistee; Philip Riley, M.D., of Jackson; Walter Z. Rundles, M.D., of Flint and Ralph W. Shook, M.D. (deceased) of Kalamazoo.

Current members re-elected were:
James Gillen, director of personnel research, General Motors (public Rep.)
Robert L. Novy, M.D., Cardiovascular Specialist, Detroit (Rep. of MSMS)
James Blodgett, M.D., Cardiovascular Surgeon, Detroit (Rep. of MSMS)
A. Kent Schafer, administrator of Munson Hospital, Traverse City (Rep. of MHA)
A. C. Kerlikowske, M.D., director of University Hospital, Ann Arbor (Rep. of MHA)

Following is the complete list of the members of the Board of Directors of Michigan Medical Service:

Representing Michigan State Medical Society: E. C. Baumgarten, M.D., Detroit; James B. Blodgett, M.D., Detroit; Allan K. Cameron, M.D., Saginaw; William S. Carpenter, M.D., Detroit; Ralph R. Cooper, M.D., Detroit; Edwin H. Fenton, M.D., Detroit; J. S. De Tar, M.D., Milan; B. M. Harris, M.D., Ypsilanti; C. K. Hasley, M.D., Detroit; W. H. Huron, M.D., Iron Mountain; Michael C. Kozonis, M.D., Pontiac; Max L. Lichter, M.D., Melvindate; G. Thomas McKean, M.D., Detroit; R. L. Novy, M.D., Detroit; John W. Rice, M.D., Jackson; Gilbert B. Saltonstall, M.D., Charlevoix; Donald N. Sweeny, Jr., M.D.; George W. Slagle, M.D., Battle Creek; Donald W. Thorup, M.D., Benton Harbor; Arch Walls, M.D., Detroit; John M. Wellman, M.D., Lansing; D. Bruce Wiley, M.D., Utica.

Representing Michigan Hospital Association: Mr. Franklin D. Carr, Detroit; Roger W. Debusk, M.D., Detroit; A. C. Kerlikowske, M.D., Ann Arbor; Roger B. Nelson, M.D., Ann Arbor; Mr. A. Kent Schafer, Traverse City; Mr. Ronald Yaw, Grand Rapids.

Representing the Public: Carleton Fox, D.D.S., Detroit; Robert A. Frye, Detroit; James M. Gillen, Detroit; John Reid, East Lansing; Waldo I. Stoddard, Grand Rapids.

WOULDN'T IT BE WONDERFUL?

If the American voter would wake up and demand an end to deficit financing even at the risk of losing a handout; if Michigan would set aside a segment of good trout stream for fly fishermen with barbless hooks and no "keepers," as Pennsylvania has done; if Congressmen could find the courage to put real restraints on the excesses of Big Labor, both criminal and moral; if either the Tigers could string two wins together, or the Yankees could catch the Detroit Disease; if adjusters for the professional liability carriers would fight every malpractice suit rather than tempt the avarice of the public with easy out-of-court settlements; if a putter could be found which would abolish the three putt green; if Khrushchev and Mao should develop a craving for Equanil and Coca-Cola; if everyone could have a tax free island in the South Seas for one month a year; if Life were indeed beautiful?—Charles J. Ryan, M.D., Editor *Bulletin Calhoun County Medical Society.*

COST OF LIVING INDEX

Latest report by Bureau of Labor Statistics on consumer prices discloses a wide range in the components which enter into the "Medical Care" index. Taking 1947-49 as the base period (100.0), hospital rates were 209.6 in June and, at other extreme, price of aspirin tablets was 109.1. For all elements of "Medical Care," index was 150.6. Considering services alone—everything except certain prescriptions and over-counter drugs—the medical cost index in June was 156.1; in other words, 56 per cent higher than it was a decade ago. Physicians' fees stood at an index of 142.3. This heading is subdivided into general practitioners and surgeons, and the respective index figures are 145.0 and 126.2. Index for dental fees is 134.6.—WRMS.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 NOVEMBER, 1959 NUMBER 11

Granulomas of the Lung

The Necessity for Early Identification

Richard A. Rasmussen, M.D.,
Richard H. Mead, M.D.,
and Clair E. Basinger, M.D.

Grand Rapids, Michigan

THE SOLITARY pulmonary granuloma is well known as an innocuous lesion, but it is frequently confused with cancer of the lung. Because of this there is a real need to emphasize the necessity of considering cancer whenever one encounters such a lesion.

A granuloma, as a solitary pulmonary nodule, is the end result of an inflammatory process. This is most often due to fungus infection, such as histoplasmosis and coccidiomycosis and least commonly, tuberculosis. The causative organism is frequently impossible to demonstrate by special bacteriologic and histologic techniques.[1]

About one-third of solitary masses excised from the lung will prove to be granulomas. Nearly one-half of all such pulmonary nodules will be malignant neoplasms. The remaining lesions will be various other types of inflammation, congenital abnormalities, or benign neoplasms. They are all asymptomatic, and are found unexpectedly on survey or routine chest x-ray examination, or they may be detected in an individual, often the heavy cigarette smoker, having nonspecific symptoms, such as cough and mild production of sputum. The lesions are discrete, may vary in size from 1 cm. to 3 cm., on occasion may be multiple, and rarely show calcification. They are located peripherally in the lung fields, and other significant abnormalities are seldom seen with them on the x-ray. This type of lesion is easily distinguished from an active infiltrative type of tuberculous process, which is more often seen in the apex or sub-apex of the lung. The granuloma, or indeterminate lesion, may occur anywhere in the lung field. Neoplasms make up the most important group to be considered by the physician whenever an isolated pulmonary nodule is found on the chest x-ray.[2]

Those nodules which prove to be granulomas are of several varieties: Those caused by Histoplasma capsulatum and by Coccidiodes immitis, also those caused by various less common organisms, including the tubercle bacilli. The tuberculoma is thus one of the less common types of granuloma. It should no longer be considered a prime possibility when one encounters a solitary lung lesion.

In a study of ninety-two resected, tuberculoma-like lesions, Segal *et al*,[3] using special bacteriologic and histologic techniques, found it possible to identify the causative agent in 87 per cent. Davis *et al*[1] were able to demonstrate an etiologic agent in 80 per cent of eighty-two granulomatous lesions.

Histoplasma capsulatum was found by both groups of investigators to be by far the most

common cause of granulomas, ranging from 55 per cent to 73 per cent. Another common fungus, Coccidioides immitis, was demonstrated as an etiologic agent in 7 per cent to 10 per cent of all lesions. Positive cultures for the tubercle bacillus were obtained in 3.3 per cent of the tuberculoma-like lesions by Segal. Davis, on the other hand, by utilizing special staining techniques, was able to demonstrate a higher incidence of 17 per cent. It is apparent from these studies, that the tubercle bacillus is one of the less common causes of the solitary granulomas of the lungs.

The greatest problem for the physician is the danger of confusing carcinoma of the lung with a granuloma or some other solitary lesion of the lung. They all look alike, occur in the same area of the lung, are asymptomatic and, moreover, all tend to occur most frequently in persons between forty and sixty years of age.

Because of the striking similarity of a fairly large proportion of carcinomas of the lung to the granuloma, it is imperative that the lesion be identified early. It is during this asymptomatic or "silent" period that carcinoma of the lung lends itself most favorably to excision.[4] If the undiagnosed lesion is carcinoma, it may progress to a hopless stage of disease before its malignant nature is recognized. Exploratory thoractomy may be indicated immediately. An attitude of watchful waiting may be fatal.

The Differential Diagnosis

The differential diagnosis of the rounded, indeterminate density is as follows: neoplasms, both malignant and benign, inflammatory lesions due to fungi or the tubercle bacillus, and congenital lesions such as cysts. The occurrence of peripheral, primary, bronchogenic carcinoma is indeed quite frequent, and even with a surprisingly small primary lesion there may already be metastasis to the regular lymph nodes. Secondary metastatic carcinoma is less common. True bronchial adenomas occur uncommonly in the peripheral lung fields. Other benign rounded tumors such as hamartomas do occur peripherally. The granulomas usually to be considered are the result of infection due to histoplasmosis, coccidiomycosis, tuberculosis and blastomycosis. Congenital lesions have been encountered rarely. They are usually cysts. We have not seen A-V fistulas, though they do occur.

Establishing the Diagnosis

The history is usually not helpful. If symptoms are present, they are indefinite and not related to the lesion in question, unless it is a secondary tumor metastasis. However, it must be realized that such a metastasis may occur in the complete absence of signs of a primary tumor elsewhere. The physical examination is of no value except to detect other diseases. Skin tests are usually performed whenever a granuloma-like lesion is discovered by x-ray. The usual tests are done with tuberculin, histoplasmin, and coccidioidin. Blastomycin has been used occasionally. The result will vary, but a relatively high per cent of adults in west Michigan will react positively to tuberculin and histoplasmin. Reports from the Mississippi Valley area indicate a variation rate up to fifty per cent or more in some groups.

A positive skin test is no reason for assurance that a lesion is a granuloma and benign. One must remember that a skin test may be positive in the absence of a demonstrable lesion, also that a great many individuals with known carcinoma may react positively. However, a negative reaction to the usual antigens is cause for immediate assumption that the lesion is malignant, and recommendation for excision. The diagnosis should be pursued further whenever possible by laminographic x-ray examination, a technique by which the lesion may be sectioned *in situ,* so to speak. By such multiple x-ray sections of an area of lung in question, it may be possible to study the shape of the lesion further, or even to demonstrate the presence of calcification. The presence of calcium will rule out neoplasm with reasonable assurance, especially if there is also a positive skin test, although there have been recorded instances of calcification in a carcinoma. Occasionally it is possible to show lamination of the lesion, the concentric layers of calcification which are characteristic of a well-healed granuloma.

Bronchoscopy and bronchography are not very helpful in the diagnosis of the peripheral granuloma, unless it is an active tuberculous lesion, or a definite carcinoma, in which instance bacteriologic study or Papanicolaou cell study of bronchial exudate or irrigate may be diagnostic of either condition.

Exploratory thoracotomy may be necessary, and is the most reliable method of diagnosing and treating the indeterminate pulmonary lesion. This,

of course, assumes that the individual is in satisfactory condition for such surgery, and that all other indicated diagnostic tests as outlined have been performed.



Fig. 1. (a) Chest film showing rounded lesion above left diaphragm. (b) Lateral view of film shown in (a). Note calcification.

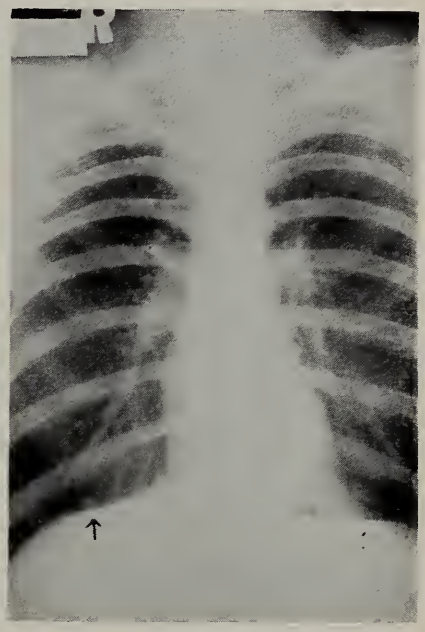


Fig. 2. Chest x-ray, September, 1952, showing non-calcified rounded peripheral density near right diaphragm.

Our own surgical experience in dealing with solitary pulmonary lesions of various types, tuberculosis in various stages, and neoplasms has been similar to that of other groups. The small, silent, solitary peripheral lesion is difficult to diagnose accurately by any method short of thoracotomy. The probability of malignancy in such lesions is almost fifty per cent. This fact alone is enough to justify consideration of surgical excision in nearly all of these cases. Carcinoma must always be excluded.

A diagnosis of granuloma is established by a positive skin test and calcification, or the latter alone, if laminated, or by a positive smear for one of the common causative organisms. However, one is not justified in waiting some eight to ten weeks for results of culture and animal inoculation before proceeding with the thoracotomy.

Case Presentations

Case 1.—A forty-five-year-old teacher and athletic coach was examined on December 29, 1955, because a well circumscribed density had been found in the left lung on routine chest x-ray examination. He was asymptomatic. A tuberculin skin test had been markedly positive, and x-rays had been recommended. There was no history of previous chest illness, and the physical examination was negative.

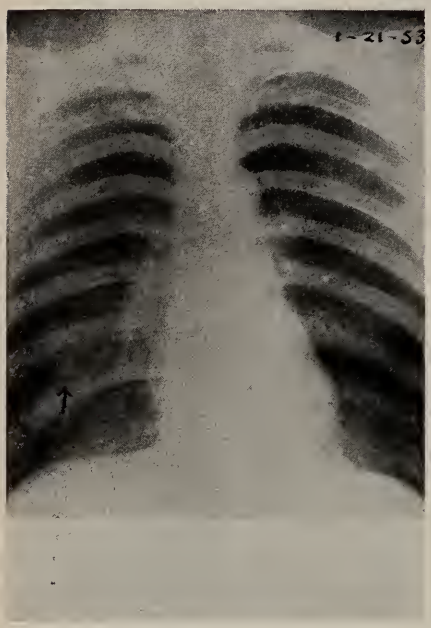
Routine postero-anterior and lateral chest x-rays of December 19, 1955, showed a discrete rounded 1.5 cm. density containing calcifications in the left base, peripherally in the lung field (Fig. 1). There was associated hilar calcification. The interpretation was benign granuloma—tuberculoma.

Treatment.—Observation was considered adequate. On subsequent x-rays on November 12, 1957, and August 28, 1959, the lesion was unchanged. Patient remains well.

Case 2.—A thirty-four-year-old physician was admitted to the hospital on September 16, 1952, for surgical excision of a rounded, uniform, non-calcified density in the right lower lung field. He had been asymptomatic, except for tiredness. A chest x-ray in September, 1952, had revealed the abnormality above the right diaphragm (Fig. 2). Fortunately, previous x-rays were available. A chest film of May, 1952, showed a small density in the same area, but it was not evident on earlier films. Routine skin tests revealed a positive reaction to histoplasmin. Surgical excision was recommended because of the possibility of tumor.

Treatment.—A wedge type of excision was done on September 23, 1952, from right lower lobe. Diagnosis: Chronic granulomata of lung—histoplasmosis. The specimen showed several grayish laminated lesions, the largest of which measured 1 cm. in size, and the smaller 1 mm. in diameter. Patient remains well.

Case 3.—A forty-nine-year-old man was examined on February 2, 1953, because a recent chest x-ray had revealed abnormality in the right lung. The history was essentially negative, except for a mild, moderately productive "cigarette cough" present about ten years. He had also had mild arthritis of the spine for eight years. A chest x-ray by an iron works was negative three years previously. In 1949, he had a diagnosis of peptic ulcer by x-ray. Complete recovery had followed a dietary program. The physical examination was negative. Review of x-rays dated January 19, 1952, January 21, 1953, and February 16, 1953 (Fig. 3). There was a circular-shaped density of 1.5 cm. size located in the right mid-lung field. There was some calcification in the left hilum. The interpretation was: probable neoplasm, right lung. A tuberculin skin test was a questionable positive.



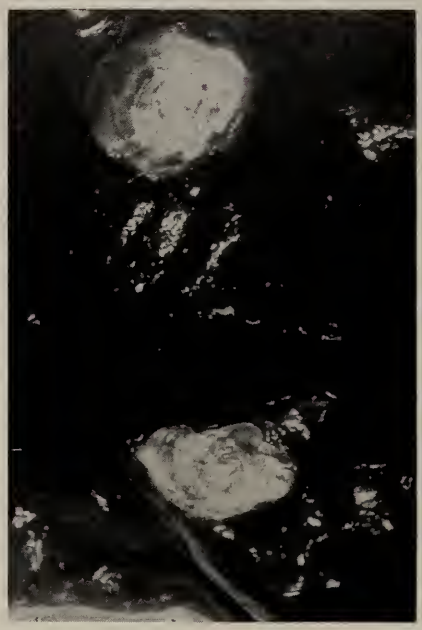


Fig. 3. (a) Chest x-ray showing rounded, non-calcified density in right 5th anterior interspace. (b) Photograph of pathologic specimen showing concentering layering of fibrous tissue and some calcification.



Fig. 4. Chest x-ray showing non-calcified rounded density in the left 3rd interspace.

Treatment.—Bronchoscopy on February 17, 1953, was negative for malignant cells. A right middle lobectomy was done on February 19, 1953, when a 2 cm. size nodule was found in the parenchyma of this lobe. Diagnosis: Nodule of almost healed chronic granulomatous inflammatory reaction. Tuberculosis? Recovered.

Case 4.—A fifty-three-year-old man was admitted to the hospital on January 9, 1959, for study and excision of a newly discovered and indeterminate type lesion of the left lung. He was essentially asymptomatic, except for moderate dyspnea on exertion, and a chronic cough. He had been a moderately heavy cigarette smoker. Previous chest x-rays were available. On April 20, 1955, the lung fields were negative. On June 28, 1958, a small rounded lesion was noted in the left third interspace (Fig. 4). Its continued presence was noted on August 18, 1958, and November 25, 1958, he was advised to seek consultation. Skin tests done prior to admission were all negative.

Additional x-ray examination of the chest on January 1, 1959, revealed pulmonary emphysema and a circular shadow in the left third interspace, which was thought to be due, possibly, to a granuloma. Pulmonary function studies revealed a decreased reserve.

Treatment.—Exploratory thoracotomy on January 12, 1959. Frozen section done after local excision revealed tumor. A left upper lobectomy and excision of several small nodes from the hilum and mediastinum were done. Diagnosis: Pleomorphic epidermoid carcinoma of lung, with metastatic carcinoma to hilar nodes. Recovery without present evidence of tumor.

Case 5.—A sixty-three-year-old man was examined on October 27, 1958, because of abnormality by x-rays made two weeks previously. He was asymptomatic. He gave a history of peptic ulcer two years previously. It had healed. A small carcinoma of the lower lip had been removed three years previously in Grand Rapids and there had been no evidence of metastasis. Numerous chest x-rays had been made previously. In 1954, a small, solid, discrete 1 cm. size density was noted in the right mid-lung. This was unchanged in 1957, and the lungs were negative otherwise. An x-ray of October 15, 1958, showed a rounded, nodular density of 3 cm. size above the left hilum, and a calcified density of 1 cm. size in the right lung (Fig. 5, a). Routine skin tests showed a positive histoplasmin test.

Treatment.—The patient was admitted to the hospital on November 2, 1958, for further study. Laminographic

x-rays of the area of the lesion strongly suggested tumor (Fig. 5, b). Other x-rays including those of the gastrointestinal tract were negative. A bronchoscopy failed to yield cancer cells on the Papanicolaou smears. A prescalene node biopsy showed chronic, non-specific lymphadenitis. Exploratory thorotomy on November 10, 1958, revealed a 4 cm. sized rounded, peripherally-located tumor in the left upper lobe. There were several enlarged mediastinal lymph nodes which, on examination, showed metastatic carcinoma. A left upper lobectomy and hilar mediastinal node dissection were done. Diagnosis: Undifferentiated bronchogenic carcinoma with metastasis to regional lymph nodes. Patient recovered and so far has not shown evidence of residual or other metastasis.

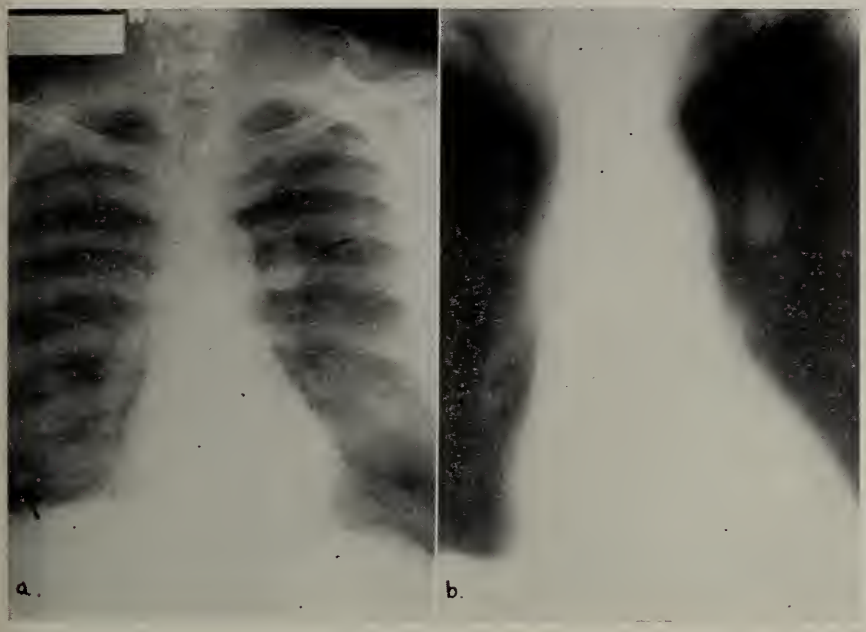


Fig. 5. (a) Chest x-ray showing rounded density in left upper hilar and mid-lung field, and smaller rounded density in right lower lung field. (b) Laminographic film showing rounded density above the left hilum.

Case 6.—A sixty-seven-year-old man was admitted to the hospital on March 20, 1956, for surgical exploration of the left chest because of an undiagnosed lesion in the left upper lobe. He had been relatively asymptomatic for his age and the physical examination was not remarkable. Review of the recent x-rays of January 5, 1956, and March, 1956, showed a fairly discrete area of increased density measuring 2 to 3 cm. in the left upper lobe. X-rays in 1953, and 1954, had shown a similar, slightly smaller lesion (Fig. 6). A tuberculin test at that time was positive, and routine bacteriologic tests had been negative. The patient had declined additional consultation. On January 1, 1956, he had been admitted to the sanatarium for additional study and treatment. Bronchoscopy and study for carcinoma cells were negative. Anti-tuberculous treatment was started and continued to March, 1956, on the assumption that the lesion might be tuberculous. In the absence of confirmation, exploratory thoracotomy was recommended.

Treatment.—Left upper lobectomy and node excision on March 21, 1956. Diagnosis: Adenocarcinoma of lung without evidence of metastasis to lymph nodes. Patient remains well to date.

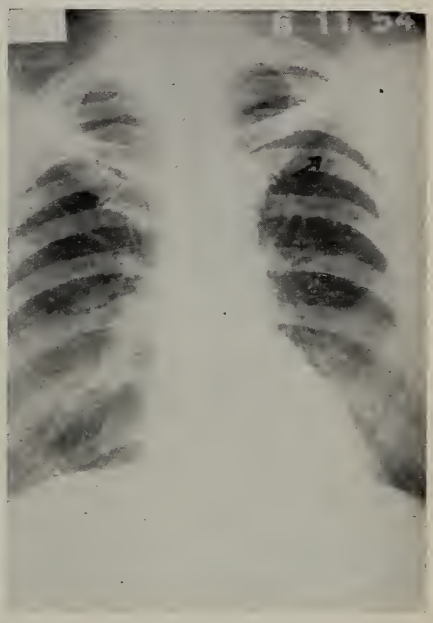


Fig. 6. Chest x-ray of 1954 showing rounded area of density in the left 1st interspace. No real change in x-rays of 1956.

Discussion

It is evident, as one can see from the foregoing case histories and x-rays, that it is difficult to make an exact diagnosis of the solitary pulmonary nodule. The three granulomas and three carcinomas were found unexpectedly by x-ray of asymptomatic individuals, all in the "cancer age." The lesions are similar in appearance. In making the diagnosis, we used the following criteria to determine whether or not the nodule was a granuloma: (1) Positive skin test and calcification, (2) Calcification alone, if laminated, and (3) positive smear of the causative organism. If, after applying these criteria, there was doubt as to the nature of the nodule, we resorted at once to the *exploratory thoracotomy.* This permitted a diagnosis and, more importantly, the removal of an early carcinoma, if present.

In one case, the first, we were able to diagnose a granuloma, using the criteria listed above. In all the rest of the cases, exploratory thoracotomy was done. All patients are living and well, the three carcinoma patients apparently well from eight to forty-two months after resection.

(Continued on Page 1806)

Treatment of Pulmonary Tuberculosis with Seromycin

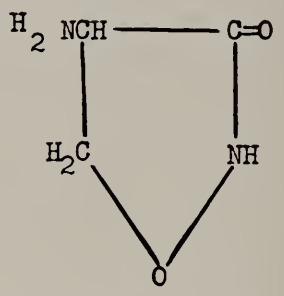
Anthony F. Stiller, M.D.,
and Winona Barrows, M.D.
Kalamazoo, Michigan

IN RECENT years the standard treatment of pulmonary tuberculosis is to use streptomycin, isoniazid and PAS along with complete or modified bed rest, depending on the extent and severity of the involvement. To use these drugs most effectively, they must be used in combinations such as isoniazid and PAS, streptomycin and PAS or streptomycin and isoniazid. Results obtained to date, show that the combination of isoniazid and PAS is most effective—the other combinations, although producing satisfactory results in many instances, are found to be less effective to a certain degree. There is, however, an urgent need for additional drug regimens, because of frequent development of drug resistance or of undesirable side effects to the use of the above drugs. Drug resistance to streptomycin is frequent and severe gastro-intestinal irritation is often produced by PAS. If these drugs cannot be used, experience indicates that isoniazid alone is not sufficiently effective in chronic advanced disease; an ancillary drug of proved effectiveness is needed with it. Consequently, other drugs and drug combinations have been tried as replacements when the three main medications have, for any reason, lost their usefulness to the patient.

In 1954, Eli Lilly & Company joined Commercial Solvents Company in a clinical investigation of a fermentation product of Streptomyces Orchidaceus, discovered by the latter company. This product was given the generic name of Cycloserine and the Lilly product is called Seromycin.® Seromycin was introduced as an alternative drug to which patients with tubercle bacilli resistant to other agents might still respond. Studies show that tubercle bacilli do not rapidly become resistant to Seromycin.

Chemistry

Seromycin is a white crystalline powder with a melting point of 155° C. It is soluble to water at 25° C. to the extent of 100 mg. per ml. The molecular weight of the antibiotic is 102. The structural formula is as follows:



D-4—amino—3—isoxazolidinone

Pharmacology

The toxicity of Seromycin is of the same order as that of potassium penicillin-G following intraperitoneal, subcutaneous and oral administration to albino mice.[3] Seromycin is less toxic than potassium penicillin-G following intravenous injection. Rats tolerate doses of Seromycin as great as 5 Gm. per Kg. orally or subcutaneously, and guinea pigs survived after subcutaneous doses of 2 Gm. per Kg.

Welch *et al*[2] selected forty normal ambulatory human subjects and divided them into four groups. Group One received 250 mg. of Seromycin; Group Two received 500 mg. of Seromycin; Group Three received 750 mg. of Seromycin; and Group Four received 1000 mg. of Seromycin in capsule form. At four, eight, twelve and twenty-four hours following administration of the medication, blood samples were collected. The total output of urine over a forty-eight hour period was also collected. In Figure 1 are shown the average blood concentrations of Seromycin obtained in these subjects. Figure 2 shows urinary secretions of Seromycin and Figure 3 the cumulative excretion of Seromycin from these subjects. Spinal fluid concentrations of Seromycin approximated closely those obtained in blood. These relatively high blood and urine concentrations, theoretically, should be conducive to good antibacterial effect in the treatment of tuberculosis.

Contra-Indications and Side-Effects

Seromycin is contra-indicated in patients with a history of epilepsy. Side-effects such as somnolence, dizziness, and mental confusion may appear following administration of 1 Gram or more of Seromycin daily. Convulsive seizures, varying from petit mal to grand mal, have been observed in about 8 per cent of patients receiving 1 Gram per day,[15] and in only 3 per cent receiving 750 mg. per day. Convulsive seizures have been rare with a daily dose of 500 mg. If one should encounter a convulsion with the 500 mg. dosage,

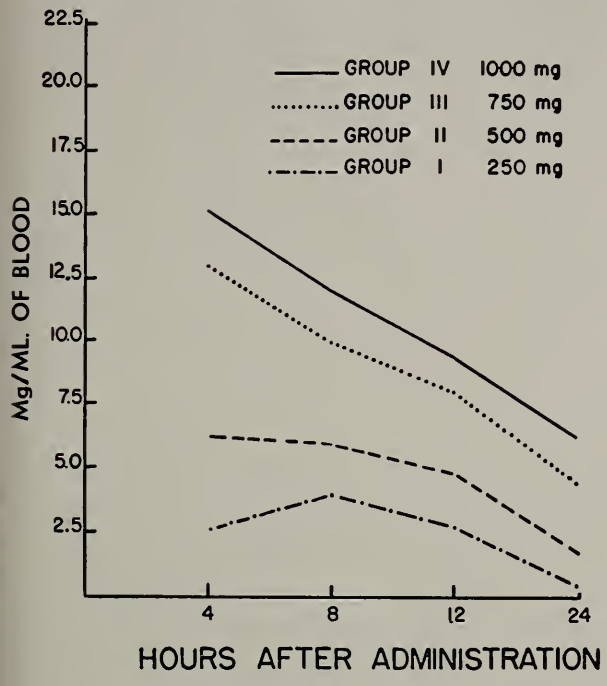


Fig. 1. Average blood concentration of Seromycin.

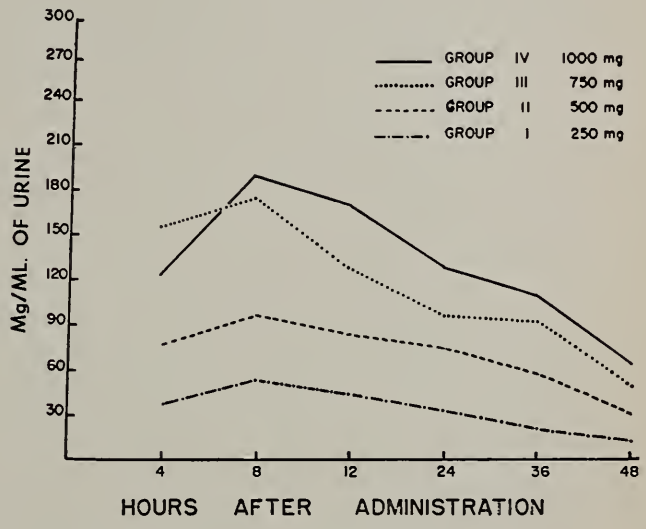


Fig. 2. Urinary excretion of Seromycin.

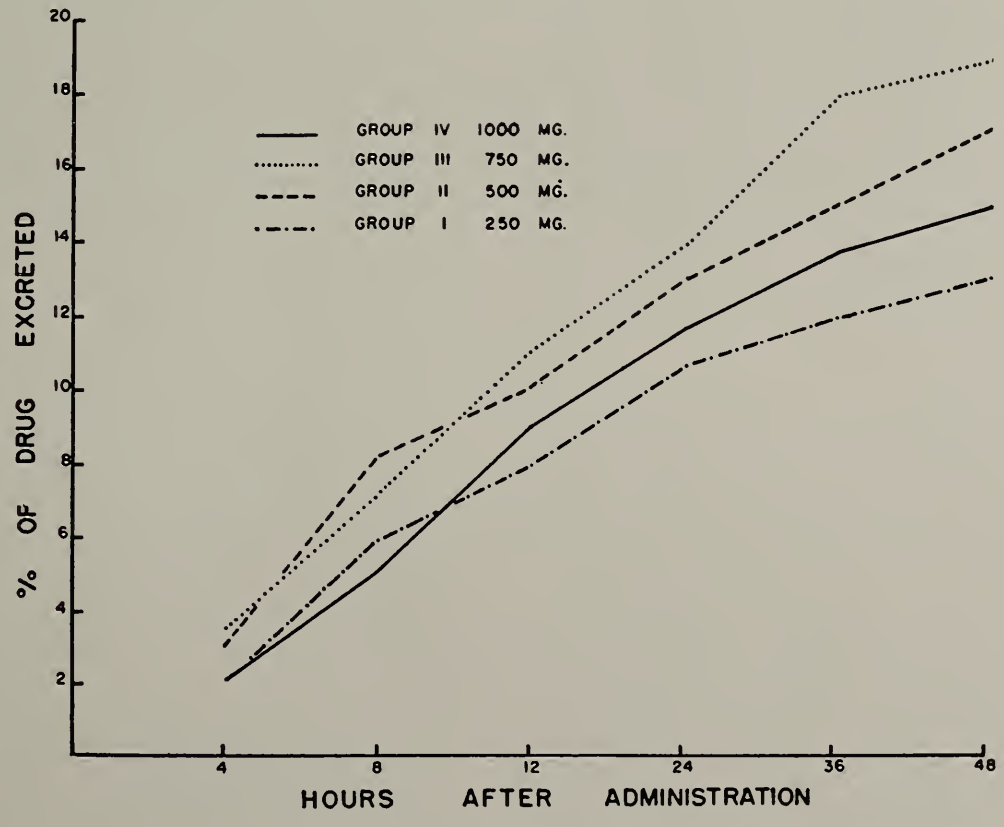


Fig. 3. Cumulative urinary excretion of Seromycin.

TABLE I.

Case Number	Patient	Age	Sex	Race	Duration of Disease	Extent of Disease	Cavity: Single or Multiple	Original Or Retreatment Case	Susceptibility To Previous Drugs Used	Drugs Used During Study (Daily Dose)	Duration of Treatment During Study	Sputum Status At Start of Study	Sputum Status At End of Study	X-Ray Response at End of Study
1	E.O.	68	Male	W	11 yrs.	F.A. with Silicosis	Single 5 cm	R	Strep=R PAS=R INH=Partial R	Seromycin 500 Mg INH 300 Mg	17 months	Positive	Positive	Cavity 2 cm Smaller
2	F.C.	43	Male	W	15 yrs.	F.A.	Multiple 4 cm	R	Strep=R PAS=S INH=R	Seromycin 500 Mg INH 300 Mg	2 months	Positive	Positive	Worse
3	P.S.	47	Male	W	4 yrs.	F.A.	Multiple 2½ cm	R	Strep=R PAS=R INH=Partial R	Seromycin 500 Mg INH 300 Mg.	17 months	Positive	Positive	No change
4	R.K.	56	Male	W	3 yrs.	F.A. with Silicosis	Single 3 cm	R	Strep=R PAS=R INH=Partial R	Seromycin 500 Mg INH 300 Mg	3 months	Positive	Positive	No change
5	H.R.	47	Male	C	5 yrs.	F.A	Multiple 3 & 4 cm	R	Strep=R PAS=R INH=Partial R	Seromycin 500 Mg INH 300 Mg	17 months	Positive	Positive	Decrease size of cavity Rt.; Increase cavity Lt
6	R.S.	62	Male	W	6 yrs.	F.A.	Single 5 cm	O	Strep=R INH=S PAS=R	Seromycin 500 Mg INH 300 Mg	17 months	Positive	Negative	Closure of cavity Cleared disease.
7	M.O.	64	Male	W	4 yrs.	F.A	Single 7 cm	R	Strep=? INH=? PAS=?	Seromycin 500 Mg INH 300 Mg	17 months	Negative	Negative	Cavity de-decreased 2½ cm
8	W.D.	48	Male	W	3 yrs.	F.A.	Single 7 cm	R	Strep=S INH=S PAS=S	Seromycin 500 Mg INH 300 Mg	15 months	Positive	Positive	Worse
9	E.D.	52	Male	W	2 yrs.	F.A.	Single 2-3 cm	O	Strep=S INH=S PAS=S	Seromycin 500 Mg Strep. 1 Gm Twice a week	17 months	Positive	Negative	Arrested
10	A.H.	60	Male	W	1 yr.	F.A.	Multiple 3 cm	R	Strep=S to 50 Mcgs INH=S to 10 Mcgs PAS=R	Seromycin 500 Mg INH 300 Mg	14 months	Positive	Positive	Moderate improvement noted
11	E.M.	37	Male	W	3 yrs.	F.A.	Multiple 3 cm	R	Strep=S to 50 Mcgs INH=S to 100 Mcgs PAS=S to 100 Mcgs	Seromycin 500 Mg INH 300 Mg	11 months	Positive	Positive	Worse
12	C.S.	61	Female	W	Many yrs. with 2 reactivations	M.A.	None	R	None reported because of neg. sputa after adm.	Seromycin 500 Mg INH 300 Mg	11 months	Positive (1 g.p. before admission)	Negative	No change
13	J.K.	48	Male	W	2 yrs.	F.A.	Single 6-7 cm	O	Strep=S INH=S PAS=S	Seromycin 500 Mg INH 300 Mg	11 months	Positive	Negative	Good improvement

the patient should be suspected of having a history of epilepsy or poor excretion of the Seromycin due to poor renal function.

Because Seromycin is excreted in the urine in very high concentrations, it should be administered with caution and in lower dosage to patients with impaired renal function. Usual therapeutic doses of the drug might easily give rise to high blood plasma concentrations in such patients and increase the risk of serious side-effects.

There has been no evidence noted of any increase in side-effects when Seromycin has been used in combination with either isoniazid or streptomycin.

Our Study

Our study, therefore, limited itself entirely to the daily use of 500 mg. of Seromycin with 300 mg. of isoniazid, or of 500 mg. of Seromycin daily in combination with 2 or 3 Gms. of Streptomycin per week. All patients in our study had PSP kidney tests and BSP liver tests, and only those with good kidney and liver function were chosen. Perhaps because of this precaution only one mild side-effect was noted in our series. This patient exhibited blurred vision, wavy image, dizziness and slight muscle jerking of the extremities of only very short duration, approximately from one-half to three-quarters of an hour.

A total of thirteen cases were used in our study. Ten had chronic active disease and were re-treatment cases. Two were new cases of pulmonary tuberculosis just discovered. One patient, although a new case, could not tolerate isoniazid or PAS and was therefore given Seromycin, 500 mg. daily and streptomycin, 3 Gms. per week. This patient's bacilli, however, were sensitive to all of the three standard anti-tuberculosis drugs. The second new case had no contra-indications or poor tolerance to the three standard drugs and was given 500 mg. of Seromycin and 300 mg. of isoniazid daily. The third new case, although a re-activation with bacilli resistant to streptomycin and PAS but still sensitive to isoniazid, was given Seromycin 500 mg. daily and 300 mg. of isoniazid daily. His active disease was a 2 cm. cavity in a segment of lung previously uninfected by tuberculosis and was the only active disease present in both lungs. He is, therefore, included in the category of original treatment cases.

Table I shows the results of our study. As in other series of original treatment cases reported, our patients also did well. They are listed as Cases 6, 9 and 13 in Table I. All arrested their tuberculosis and today enjoy good health, reunited with their families.

Three patients receiving re-treatment (Cases 1, 7 and 10 in Table I) showed improvement during the study. As a result of treatment with other drugs and surgery following the study, two of the three may be able to achieve an arrest of their disease. These are truly salvage cases. The third, although improved during the study, now remains a stationary active case.

One patient (Case 11), while receiving Seromycin and isoniazid for a period of eleven months of this study, filled a cavity in the right lung but was considered as becoming worse because of an increase in size of a cavity in his left lung. Even though the sputum was continuously positive, the left lung cavity was resected, and after a suitable period of negative sputum, the filled cavity on the right was also resected. This patient, now discharged for six months, continues to receive streptomycin 2 Gms. per week and Seromycin 500 mgs. daily on an outpatient basis. Outpatient study shows him to continue arrested.

Another patient (Case 5) in this study was also considered to be worse because of increasing size of a cavity in the left apical posterior segment. After several surgical procedures and treatment with other anti-tuberculosis drugs, he now has had some negative sputum reports and may in time arrest his disease.

Another patient (Case 12) had only one positive sputum report by guinea pig study. Seromycin will be credited with the conversion to negative, though it is possible, of course, that the isoniazid given with the Seromycin might also have achieved this result.

Two patients (Cases 3 and 8) did not benefit from use of Seromycin. One patient (Case 3) remains a stationary chronic while another (Case 8) is showing steady deterioration, despite the fact that various other combinations of anti-tuberculosis drugs have been tried.

Two patients (Cases 2 and 4) remained in the study for two and three months only. They grew worse clinically, refused further participation in the study and expired shortly after withdrawal from the study. They were considered terminal cases at the outset. One patient (Case 4) expired from Cor pulmonale while another (Case 2) expired from his tuberculosis.

Discussion

The participants in the study demonstrated resistance to isoniazid ranging from 1 mcg. to 50 mcg. The one case receiving streptomycin showed a resistance to 10 mcg. of this drug. All the participants, previous to the study, did not respond satisfactorily to the use of combinations of standard anti-tuberculosis drugs.

When Seromycin was used with isoniazid or streptomycin, it often appeared in this study that improvement occurred in propertion to the degree of bacillary sensitivity to the streptomycin or isoniazid. The greater the resistance to the latter drugs, the less improvement was noted. Use of Seromycin alone in a series of re-treatment cases is needed to determine its effectiveness in producing the above results. If Seromycin could be made less toxic so that a larger dose could be used, it might also show more effectiveness. Such studies are now being done.

Summary

Thirteen cases of pulmonary tuberculosis were treated with a new anti-tuberculosis agent—Seromycin (Cycloserine-Lilly Co.)—in combination with known standard anti-tuberculosis drugs. Ten were re-treatment cases (old cases) and three were original treatment cases.

The original treatment cases all became arrested. The Seromycin combinations used were much less effective in the chronic disease cases (old cases). Where a good effect resulted in retreatment cases, the role of the second drug used with the Seromycin must well be considered.

Acknowledgment

For the use of Figures 1, 2, and 3, acknowledgment is made to Welch, Henry, Putnam, L. E., and Randall, W. A.: Antibacterial Activity and Blood and Urine Concentrations of Cycloserine, A New Antibiotic, Following Oral Administration. Antibiotic Med., 1:72 (February), 1955.

References

1. Harned, R. L.; P. H., and La Baw, E. Kropp: Cycloserine. I. A preliminary report. Antibiotics & Chemother., 5:204, 1955.
2. Welch, H.; Putnam, L. E.; and Randall, W. A.: Antibacterial activity and blood and urine concentration of cycloserine. A new antibiotic, following oral administration. Antibiotic Med., 1:72, 1955.
3. Harris, D. A.; Ruger, M.; Reagan, M. A.; Wolf, F. J.; Peck, R. L.; Wallick, H.; and Woodruff, H. B.: Discovery, development and antimicrobial properties of D-4-amino-3-isoxazolidone (oxamycin). A new antibiotic produced by streptomyces garyphalus n. sp. Antibiotics & Chemother., 5:183, 1955.
4. Spencer, J. N.; and Payne, H. G.: Cycloserine, experimental studies. Antibiotics & Chemother., 6:708, 1956.
5. Anderson, R. C.; Worth, H. M.; Welles, J. S.; Harris, P. N.; and Chen, K. K.: Pharmacology and toxicology of cycloserine. Antibiotics & Chemother., 6:360, 1956.
6. Schmidt, L. H. Studies on the therapeutic properties of cycloserine. Trans. 15th Conference on Chemotherapy of Tuberculosis, Veterans Administration: Army, Navy, p. 353 (Feb.) 1956.
7. Jones, L. R.: Colorimetric determination of cycloserine, a new antibiotic. Anal. Chem., 28:39, 1956.
8. Conzelman, G. M., Jr.: The physiologic disposition of cycloserine in the human subject. Am. Rev. Tuberc., 74:739, 1956.
9. Nair, K. G. S.; Epstein, I. G.; Baron, H.; and Mulinos, M. G.: Absorption, distribution, and excretion of cycloserine in man. Antibiotics Annual, p. 136, 1955-1956.
10. Morton, R. F.; McKenna, M. H.; and Charles, E.: Studies on the absorption, diffusion, and excretion of cycloserine. Antibiotics Annual, p. 169, 1955-1956.
11. Epstein, I. G.; Nair, K. G. S.; and Boyd, L. J.: Cycloserine, a new antibiotic in the treatment of human pulmonary tuberculosis. A preliminary report. Antibiotic Med., 1:80, 1955.
12. Cummings, M. M.; Patnode, R. A.; and Hudgins, P. C.: Effects of cycloserine on mycobacterium tuberculosis in vitro. Antibiotics & Chemother., 5:198, 1955.
13. Modave, J.: Cycloserine and its value in the treatment of chronic pulmonary tuberculosis. Antibiotic Med., 4:535, 1957.
14. Moyer, R. E.; and Schwartz, W. S.: Development of bacterial resistance to cycloserine and its correlation with clinical and x-ray changes. Trans. 15th Conference on Chemotherapy of Tuberculosis, Veterans Administration: Army, Navy, p. 380 (Feb.) 1956.
15. Veterans Administration-Armed Forces study on the chemotherapy of tuberculosis. Quarterly Progress Report (April) 1956.
16. Epstein, I. G.; Nair, K. G. S.; and Boyd, L. J.: The treatment of human pulmonary tuberculosis with cycloserine: Progress report. Dis. Chest, 29: 241, 1956.
17. Epstein, I. G.; Nair, K. G. S.; and Boyd, L. J.: The treatment of human tuberculosis with cycloserine. A year's progress. Antibiotics Annual, p. 141, 1955-1956.
18. Renzetti, A. D.; Wright, K. W.; Edling, J. H.; and Bunn, P.: Clinical bacteriologic, and pharmacologic observations upon cycloserine. Am. Rev. Tuberc., 74:128, 1956.
19. Livings, D. G.: Cycloserine: Data from VA-Army-Navy co-operative study. Trans. of 15th Conference on Chemotherapy of Tuberculosis, Veterans Administration: Army, Navy, p. 372 (Feb.) 1956.
20. Epstein, I. G.; Nair, K. G. S.; and Boyd, L. J.: Treatment of human tuberculosis with cycloserine combined therapy. Trans. of 15th Conference on Chemotherapy of Tuberculosis. Veterans Administration: Army, Navy, p. 365 (Feb.) 1956.
21. Epstein, I. G.; Nair, K. G. S.; and Boyd, L. J.: Cycloserine combined with other antituberculous agents in the treatment of pulmonary tuberculosis. Am. Rev. Tuberc., 75:553. 1957.
22. Robitzek, E. H.; and Nenashev, P. K.: Cycloserine and isoniazid in reduced dosage combination in the therapy of pulmonary tuberculosis. Antibiotics Annual, p. 431, 1956-1957.
23. Walker, W. C.; and Murdoch, J. M.: Cycloserine in the treatment of pulmonary tuberculosis: A report on toxicity. Tubercle, 38:297, 1957.

(Continued on Page 1822)

Tuberculin Sensitivity in Michigan Children

John L. Isbister, M.D.
Lansing, Michigan

THE CHANGING tuberculosis picture in our communities is making the tuberculin test an exceedingly important item in the examination and diagnostic armamentarium of the practicing physician. Years ago when, it was felt, the bulk of the population had had experience with tuberculosis to some degree, medical opinion held that nearly everyone would react to the Mantoux test and there was little point in using it. That this was more pessimistic than it probably should have been, is supported by a limited study in Wisconsin in 1927,[1] in which it was determined that the reactor rate for 468 children was about 20.5 per cent. As will be shown subsequently, the tuberculin reactor rate for children in Michigan is considerably below this point at the present time.

The tuberculin test, using the Mantoux technique, offers the practicing physician a rapid and economical method through which to perform an accurate screening service to his patients. As a report on the patient's permanent record, an annual negative tuberculin response can become of very great importance as a diagnostic tool in the evaluation of a pulmonary lesion newly appearing in the chest film. If the tuberculin test has converted from negative to positive within a reasonable period of time, it strongly suggests that the lesion under question is tuberculous in nature; in an adult, under these circumstances, a continued negative tuberculin reaction raises the question of a neoplasm or fungus infection. Of course, the importance of follow-up of tuberculin reactors at any age goes without saying. For many years the pediatricians have incorporated the tuberculin test in their pre-school and annual examinations of children, as long as the test remained non-reactive. That this test may properly fit into not only the office practice, but also the hospital practice of the physician seems to be apparent. By using the test administration technique developed for tuberculin surveys in school children and industrial employes, or a modification thereof, the physician's time and cost can be reduced to a minimum and still produce this valuable item of information on his patient.

With the apparently declining incidence of tuberculosis and the changes in treatment patterns, it has been suggested that the role of the practicing physician will assume increased importance in the control of this disease. The physician's office and the general hospital are still, and will continue to be, the most important sources of newly discovered cases of tuberculosis. Any easily available tool which will assist him in the evaluation of his patients in relation to tuberculosis should find favor with him. The purpose of this paper is to briefly describe the multiple-dose syringe and the flamed platinum needle method of test administration which, it is felt, can be easily adapted to the physician's office and the general hospital, and to report on the tuberculin sensitivity of Michigan school children, as determined by a survey covering some 250,000 students. This survey was carried out on a co-operative basis, with the participants including local medical societies, school authorities, and health departments, and the state health department.

In 1952, the Michigan Department of Health reviewed the results of its mobile x-ray survey activities in terms of the number of active cases of tuberculosis being found through the 70 mm. photofluorographic examination of high school students. At that time, policy permitted that high schools would be included in mobile surveys, with the unit actually located at the school. The review led to the decision to discontinue the use of this technique as a case finding procedure oriented to the schools and this was followed in 1956, by a decision to discontinue all photofluorographic examination of persons under eighteen years of age, except those high school students known to be tuberculin reactors in areas where 14 x 17-inch films were difficult to obtain. By 1956, interest was developing in the substitution of the Mantoux

Dr. Isbister is Tuberculosis Control Officer, Michigan Department of Health.

test as the device through which school children would be screened initially for tuberculosis.

The purposes for encouraging the use of the tuberculin survey among the schools were multiple. To begin with, it was felt that the school children represented a key to the tuberculosis status of the communities from which they came. A high tuberculin reactor rate in the children would support the belief that there was a relatively large tuberculosis reservoir among the adult population and, conversely, a low reactor rate would indicate a relatively smaller tuberculosis problem. Furthermore, a comparison of the tuberculin reactor rates of the various communities within a particular county should be of value in determining which of these communities required additional tuberculosis control activity. The tuberculin survey could be expected to assist, then: (1) To determine the tuberculosis infection rate—helping to sort areas by relative seriousness of the problem; (2) to provide a basis over a period of time on which to assess the progress, or lack of progress, of tuberculosis control activities; (3) to identify for further follow-up evaluation those children already infected; (4) to provide a point of departure for tuberculosis case finding through the follow-up of adult contacts to tuberculin reactors.

While a number of Michigan counties have had Mantoux testing programs for varying periods of time, the Michigan Department of Health became actively engaged on an extensive basis in 1956; during the 1958-1959 school year, programs in which it has been a participant, have administered 272,827 Mantoux tests. Of these, approximately eighty per cent were initial tests and the remainder was subsequent testing of previous non-reactors a year later in the original situation.

The Mantoux test was selected over the patch test because of its greater accuracy.[2] Old Tuberculin in the amount of five Tuberculin Units (0.1 ml. of a 1:2,000 dilution) was used for each test, and the reading was made at the end of forty-eight hours. The measured quantity of the preparation was administered on the volar surface of the forearm, using tuberculin syringes and platinum needles; the needles were flame-sterilized between injections. Reaction at the site of the injection was measured and induration of 5 mm. or more in the shortest diameter was considered positive.

Question has been raised as to the possibility of transmitting homologous-serum jaundice by the use of the multiple dose syringe. In practice, the flamed platinum needle technique requires that the tip of the needle be heated to red heat in a flame (alcohol or gas flame) and the needle shaft refilled with tuberculin by depressing the plunger between each injection. Using this method, there have been no reported instances of homologous-serum jaundice transmission through tuberculin surveys.

TABLE I. RESULTS OF ADULT TUBERCULIN TESTING IN TWO MICHIGAN INDUSTRIES

M—male; F—female; T—total.

	Age 18-44			Age 45+			Total		
	Tested & Read	Reactors		Tested & Read	Reactors		Tested & Read	Reactors	
		No.	%		No.	%		No.	%
M	4,569	904	19.8	1,187	445	37.5	5,756	1,349	23.4
F	958	66	6.9	188	28	14.9	1,146	94	8.2
Total	5,527	970	17.5	1,375	473	34.4	6,902	1,443	20.9
M	531	83	15.6	222	74	33.3	753	157	20.8
F	615	61	9.9	251	64	25.5	866	125	14.4
Total	1,146	144	12.6	473	138	29.2	1,619	282	17.4

In relation to the interpretation of the positive test, it is important to note that there are differences of opinion as to the minimum reaction size which should be accepted as a positive test. It has been suggested that, while there is little dispute as to the significance of the reaction of 10 mm. or more, induration of 6 to 9 mm. probably represents a weakly positive reaction and here there is considerable uncertainty as to the proper interpretation.[3] A special committee is presently giving consideration to this matter[4] but inasmuch as this situation had not been clarified by the beginning of the 1958-1959 school year, the old standards were allowed to apply.

Figure 1 is a graphic presentation of the skin testing results from 92,344 children tested and read in grades one, four, seven, and ten in twenty-four Michigan counties during the 1958-1959 school year. In those schools where all grades were tested, the four grades listed above were combined with the results from those schools in which only these grades were tested. The tested and read group represents 78.7 per cent of the total enrollment in these four grades in the schools tested. Previous experience in tabulating the results by sex indicates that, in the school age group, the difference between the reactor rate of the two sexes is so slight as to be negligible.

In nearly every instance, it is important to note that the proportion of participants in a school

tuberculin testing survey decreases as the grade increases; i.e., there is a greater participation proportionally in the first grade than in the tenth. In spite of this, the proportion of students tested in all tenth grades in the tested schools was 66.1 per cent of the enrollment. It is also important to note that all reactors previously known to the health department as a result of examination of contacts to a case were counted.

In sixteen counties in which all grades were tested (116,610 students) the elementary grades of kindergarten through the eighth grade showed a reactor rate of 0.9 per cent and the high school grades of nine through twelve showed a reactor rate of 1.9 per cent; the combined reactor rate was 1.1 per cent.

A limited number of adults in "captive groups" were surveyed with the Mantoux test and the results are shown in Table I.

While it is not suggested that these adults represent a cross section of industrial employes, it is interesting to note that the infection rate for men appears to be considerably higher than for women and, in this, parallels the situation for clinical disease as represented by the occupancy of our tuberculosis hospitals. It further suggests that tuberculin sensitivity among adults is sufficiently infrequent so as to make the test valuable in the differential diagnosis of pulmonary disease.

From the standpoint of tuberculosis control, the variations in the reactor rate among various areas or communities in the state can be of consider-

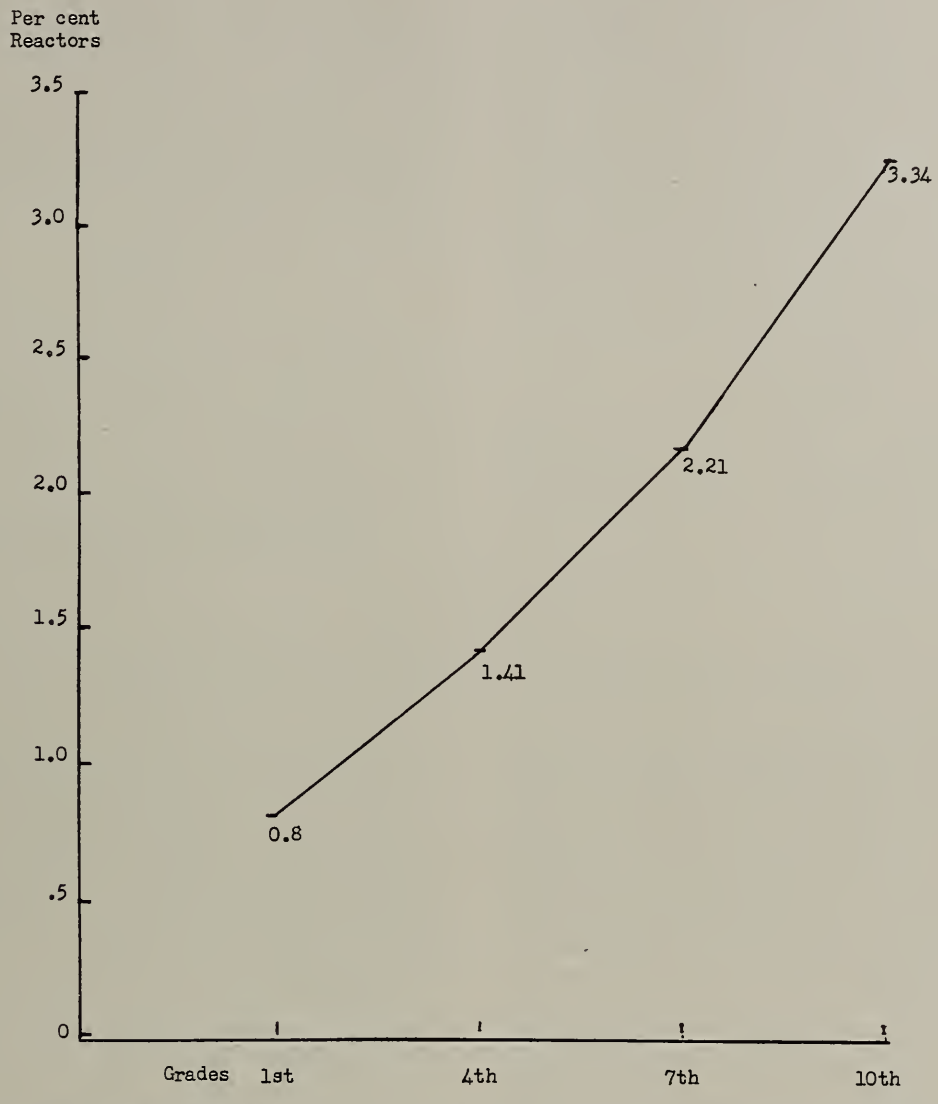


Fig. 1. Reactor rates for 92,344 children in twenty-two Michigan counties during 1958-1959 school year.

able assistance in indicating those situations in which intensified case finding should be carried out. In one rural county, for example, a tuberculin survey was carried out in which 83 per cent of the total school enrollment was tested, with a reactor rate of 1.92 per cent. In one small community, however, the rate was 6 per cent for the school children and rose to 31.8 per cent in the twelfth grade. It was obvious that there was open tuberculosis in the community and examination of the reactors and their contacts turned up three cases of active tuberculosis among the reactor children and six cases among their adult contacts—including one who operated a lunch counter frequented by the high school students.

Summary

1. The suggestion is made that the Mantoux test be used more extensively as a screening and diagnostic tool in physicians' offices and in general hospitals.

2. Attention is called to the simplicity of the flamed platinum needle and multiple dose technique which is readily adaptable to the office practice of medicine.

3. Figures are presented showing that tuberculous infection in school age children is much lower than was previously thought, and suggesting that infection in adults is low enough to make the tuberculin test of value in the differential diagnosis of pulmonary disease and as an indicator of possible non-pulmonary tuberculosis.

References

1. Pleyte, A. A., and Brown, E. Donald: Diseases of the Chest, 36:1; 11-18, 1959.
2. Waegele, V. C., Rothrock, W. J., and vonScoyoc, R.: Diseases of the Chest, 31:635-642, 1957.
3. Badger, Theo. L.: New England Journal of Medicine, 261:30-35, 1959.
4. Skin Testing Committee of the American Trudeau Society and the National Tuberculosis Association.

PRACTICE OF SURGERY IN A NEUROPSYCHIATRIC HOSPITAL

Psychotic patients present special difficulties in both diagnosis and treatment, yet thirteen years of experience in a neuropsychiatric veterans hospital have shown that the presence of a psychosis does not alter the physical signs of disease and does not preclude the obtaining of a medical history or the administration of modern therapy. In surgical cases, preoperative management includes due preparation for all the experiences in the operating room; consent to operation has been refused only in extremely rare instances, and it is no longer necessary to struggle with patients to get them anesthetized. When the cooperation of a patient is needed for operations under local anesthesia, preoperative medication generally should be minimal. The postoperative course is usually uneventful, but it is necessary to remember that the psychotic patient seldom complains of pain, is not likely to be careful with tubes and catheters, cannot be counted upon to cough up secretions, and may attempt ambulation too soon. The psychiatric behavior of the patient is especially important in orthopedic surgery because splints, casts, and traction apparatus may be tampered with or misused as lethal weapons by assaultive or suicidal patients. Trusses, braces, colostomy bags, and ambulatory urinals are unsuitable for most psychotic patients, and with patients potentially suicidal the triangular bandage, the elastic bandage, lengths of roller bandage or adhesive tape. as well as clips or safety pins, must be avoided. Difficulties with urination and defecation have frequently been found to be an expression of the psychosis itself, but the two functions interfere with each other in the sense that a greatly distended bladder has at times been found to prevent evacuation while in other cases fecal masses in patients with megacolon have caused urinary retention. Cataract extractions have been successful in nineteen psychotic patients, with definite changes for the better in ten patients whose improved vision greatly increased their capacity for self-care. The presence of a full-time surgeon in a neuropsychiatric hospital has been shown to result in a low surgical mortality rate; it also is reassuring to the patients and their families.—Marchand, Walter E.: AMA Arch. Gen. Psychiat., 1:123-131 (Aug.) 1959.

Tuberculosis Coexistent with Lung Cancer and Fungous Disease

Albert H. Kempter, M.D.
Grand Rapids, Michigan

THE PROPENSITY for malignant disease of the lungs to mimic in clinical and x-ray patterns such diseases as tuberculosis, pneumonia, fungous diseases, and a wide variety of other chest abnormalities has been well established and documented in the medical literature of the last twenty-five years. Somewhat less frequent reports of important lung disease coexisting with pulmonary tuberculosis and bronchogenic tumors are appearing, and the subject is gradually getting more deserved attention. A. J. Christoforditis and R. H. Browning summarized some of the old theories, as well as the current diagnostic thinking on this subject, and reported ten cases of pulmonary tuberculosis occurring in patients with bronchogenic cancer. Their cases illustrate again some of the important x-ray criteria pointed out by Rigler *et al*—particularly in reference to the enlargement of the hilar region which is probably the most frequent single x-ray feature common to a number of these cases.

Over a ten-year period we have had occasion to observe fifteen cases of pulmonary tuberculosis that were complicated by the simultaneous occurrence of bronchogenic carcinoma. The mortality in this group of patients has been one hundred per cent, attesting to the obvious fact that more care and attention should be given to the possibility in any proven case of pulmonary tuberculosis that other important and perhaps more deadly pathology may be present.

Just as tuberculosis may be associated with bronchogenic tumors, bronchiectasis and pneumonia, we have in two cases seen it associated with active fungous disease, on one occasion involving actinomycosis, and in the other, North American blastomycosis. In the first instance, while the patient was under investigation for infiltration in the lungs which ultimately proved to be tuberculosis, he developed mediastinal and paraspinal enlargement and thereafter evidence of dorsal spinal cord pressure. A visible swelling also occurred in the dorsal deep back musculature, and on repeated aspiration of this fluctuant mass actinomycosis bovis was recovered on cultures. This aspect of the case was treated by local installations of penicillin as well as parenteral penicillin and sulfadiazine. The response was excellent and the cord pressure symptoms cleared. Some two years later the patient came to pneumonectomy for his tuberculosis, developed a postoperative bronchopleural fistula and empyema, and ultimately died. At autopsy no evidence of the active actinomycosis was demonstrated. A long to be remembered object lesson we learned from this case, and one not emphasized enough in texts and courses on physical diagnosis—that all severe pleuritic pain in the chest may not be pleurisy, pericarditis or coronary discomfort, but may be dorsal root nerve pain.

The other patient we encountered with fungous disease provided a fascinating example of important chest abnormalities occurring simultaneously. The patient was admitted because of bacteriologically proven far advanced, active tuberculosis. Because he was also found to have a paralyzed diaphragm and a rounded mass in one lung, we suspected clinically that he also had bronchogenic carcinoma though bronchoscopy, sputum cytology studies, and a scalene node biopsy did not verify this suspicion. His clinical toxicity and lack of pulmonary reserve precluded thoracotomy and the patient ultimately expired. Our diagnosis of tuberculosis and coexisting carcinoma was verified, but to our complete surprise he also had numerous abscesses in both lungs from which pure cultures of North American blastomycosis were obtained. The case illustrates the importance of obtaining more routine fungous and cytology studies of sputum in tuberculosis patients who are not responding well to the usual effective medicaments. In this connection, T. C. Black and H. M. Wilson reported a patient with active pulmonary tuberculosis and blastomycosis that was successfully treated with Stilbamidine in 1953. Feld and Cadden also reported two cases of pulmonary tuberculosis with coexistent pulmonary blastomycosis in 1949. H. F. Stein reported fifteen cases of co-

existing pulmonary tuberculosis and coccidiomycosis.

A public health aspect worthy of some consideration was illustrated by another of our group of carcinoma patients: About two years before admission to the tuberculosis hospital he had a thoracotomy because of a mass in the chest, at which time an unresectable bronchogenic carcinoma was found. During the long downhill course following surgery the patient coughed and raised considerable sputum; after nearly two years, a sputum examination for tuberculosis was made because one of the patient's children was found to have an active primary tuberculosis, and the slides and cultures were grossly positive for tuberculosis. It goes without saying that this patient exposed many other people to the danger of tuberculosis, and in pondering over this case, we could not help but think that this sort of experience may be happening a lot more often than we like to think in hospitals, nursing homes, and domiciliary facilities throughout the country. Patients in these facilities constitute another of the remaining important reservoirs of tuberculosis in this country, in our opinion. Carcinoma patients are a debilitated group as a rule anyway, and more susceptible to infection; then again, an invading tumor process could very easily break into a quiescent focus of pre-existing tuberculosis and release active bacilli. Probably occasional cultures of sputum in patients dying with terminal cancers are indicated as a protective measure to nursing personnel and other attendants.

Most students of chest disease now feel that the incidence of bronchogenic cancer in the tuberculous population is no more nor less than that of the population at large. Most of us are seeing a generally older age group in tuberculosis facilities now, and we can reasonably expect to be seeing more bronchogenic neoplasms occurring in them. The problems presented in this group of patients do not present simple solutions. A certain complacency is apt to develop when an etiologic agent such as a tubercle bacillus is isolated and the case "diagnosed." Unfortunately too often it is only when the subsequent clinical course of events or x-ray behaviour of lesions is not satisfactory that some of the other conditions are given serious thought, and as in the cases we have observed, it is often too late. The logical answer at present would seem to maintain an open mind and high index of suspicion about chest lesions of all kinds, and to perform more routine sputum cytology and bronchoscopic studies on patients over the age of thirty-five. In addition, more routine fungous sputum cultures as well as routine skin testing for fungi should be done on tuberculosis patients and others with undiagnosed chest disease. In patients whose clinical condition will permit, we also feel that where reasonable doubt exists, early thoracotomy should be entertained, because with the available armamentarium of drugs and antibiotics, such surgery to establish a definitive diagnosis does not carry a prohibitive risk.

Bibliography

Black, T. C., and Wilson, H. M.: Am. Rev. Tuberculosis, 68:615, 1953.

Feld, D. D., and Cadden, A. V.: Dis. Chest, 16:473, 1949.

Stein, H. F.: Am. Rev. Tuberculosis, Vol. 67, 1953.

Kahn, M.: Am. Rev. Tuberculosis, 61:887, 1950.

Christoforditis, A. J., and Browning, R. H.: Arch. Int. Med., 103:231-238, 1959.

GRANULOMAS OF THE LUNG

(Continued from Page 1795)

Summary

The pulmonary granuloma presents a problem in diagnosis and treatment because of its similarity to many cancers of the lung. The etiology of the granuloma is most often a fungus and least often tuberculosis. Diagnostic criteria are presented and the problem discussed. The six cases presented illustrate the difficulty in diagnosis in differentiating between the less serious granuloma and the serious carcinoma.

References

1. Davis, E. W., Peabody, J. W., and Katz, S.: The Solitary Pulmonary Nodule. J. of Thoracic Surg., 32:728, 1956.
2. Hood, R. T., Good, C. A., Clagett, O. T., and McDonald, J. R.: Solitary Circumscribed Lesions of the Lung. J.A.M.A., 152:1185, 1953.
3. Segal, E. L., Starr, G. F., and Weed, L. A.: Study of Surgically Excised Pulmonary Granuloma. J.A.M.A., 170:515, 1959.
4. Overholt, R. H., and Bougas, J. A.: Common Factors in Lung Cancer Survivors. J. of Thoracic Surg., 32:508, 1956.

Chylothorax

Jack Foy Wu, M.D.
Kalamazoo, Michigan

CHYLOTHORAX is by definition an effusion of chylous fluid in the free pleural space. It is generally considered a disease entity. However, Nix *et al*[1] prefer to have it merely a fascinating sequela of an internal lymph fistula of obstructive or traumatic origin. The condition is still a relatively rare one, but it may be more common than the literature on the subject would indicate. Certainly, its occurrence is becoming more frequent, to parallel the increasing number and scope of intrathoracic surgical procedures. It occurs when chyle or chylous fluid escapes from the thoracic duct or its tributaries and may be the result of trauma to the duct or obstruction of the duct or of the great veins into which it empties. Frequently it may present a problem of diagnosis as to the mode of origin as well as a problem of management.

According to Brescia,[2] Bartolet first described this entity in 1633, and Quincke reported the first authoritative case in 1875. In a review of the literature extending up to 1942, Jahsman[3] was able to find 102 cases. To this figure he added another three cases of his own, bringing the total number to 105. Since that time many new cases have been added but unfortunately there is no accurate figure available. It is of interest that Seaman[4] found no mention of chylothorax in either the Civil War or the World War, and that Berry[5] discussed the only case reported as occurring in the American Army during World War II.

The Lymphatic System

Lymphatics arise independent of blood vessels from discrete mesenchymal spaces which become lined by endothelium. By progressive fusion and budding of such local anlagen, the lymph system grows to its final form. The lymphatic system consists of lymph ducts, glands, and fluid lymph. The lymph ducts drain the lymphatic glands. They extend to every portion of the body. The ducts in the lower abdomen and lower extremities unite to form the cisternal chyli. This lymth space is drained by the thoracic duct which, after receiving the tributaries from the left half of the thorax, upper extremity, and head, empties into the left subclavian vein. The right lymphatic duct drains the right side of the head and thorax and the right upper extremity, and empties into the right subclavian vein. The embryonic thoracic ducts are bilateral and symmetric and have numerous cross anastomoses. The adult duct is produced by disappearance of varying portions of the embryonic ducts and growth and persistence of the remaining portions. Because of this complexity of its embryologic development, the anatomy of the adult thoracic duct is subject to considerable variation. It is not always the single, well-defined structure that is pictured in standard anatomic works. Thoracic ductography as done by Lowman, Stranahan, Celis and Garamella[6] has well demonstrated many variants of the anatomy of this portion of the lymphatic system.

The thoracic duct arises in the abdomen from the cisterna chyli, which lies over the body of the second lumbar vertebra. From this origin it courses to the right and behind the aorta and enters the thorax through the aortic hiatus of the diaphragm. It ascends through the posterior mediastinal space close to the spine in a groove between the aorta and the azygos vein. In this area it is well concealed, but as it emerges from behind the aortic arch it becomes subpleural where it can be seen through the mediastinal pleural reflection. At this level, opposite the fifth thoracic vertebra, it inclines toward the left side and ascends behind the thoracic part of the left subclavian artery and between the left side of the esophagus and the left pleura into the neck. Here it forms an arch which rises about 3 or 4 cm. above the clavicle and crosses anterior to the subclavian artery. It finally terminates by opening into the angle of the junction of the left subclavian and internal jugular veins. The duct is 4 to 6 mm. wide and is equipped with several valves, having a pair at its termination arranged to prevent the reflux of venous blood. It is generally flexous and constricted at intervals, presenting a varicose appearance. Lee[7] in 1922, demonstrated that there are many small collateral

branches which are in conjunction with the main duct and that some of these communicate by small filaments with the lumbar, intercostal, and azygos veins. In the neck the main duct is joined by the left jugular and left subclavian trunks and the left bronchomediastinal trunk.

The thoracic duct and its tributaries serve as the channel through which chyle is carried from the digestive system to the venous circulation. Flow of lymph is dependent upon several factors. The rhythmic contractions of the smooth muscle fibers in the duct, the changes in the intrathoracic pressure with respiration, the accumulation of chyle in the cisterna chyli, movements of the extremities, and intestinal peristalsis all help to propel the chyle upward along the duct. Under normal conditions the intraductal pressure is said to be very small, but after ligation it can reach as high as 35 cm. of water. On the other hand, the pressure in the venous angle receiving the thoracic duct may be zero, or less than atmospheric pressure.[8] This permits ready entrance of chyle into the venous circulation. The amount of chyle flowing through the duct varies between 60 and 190 cc. per hour,[9] or approximately two liters a day. And through this vehicle is transported from sixty to seventy per cent of the fat from the lacteals of the intestinal villi into the venous system.

Chyle is essentially lymph containing from five to fifteen per cent of emulsified fat. The protein concentration of chyle may be increased to two or more per cent, dependent upon the food absorbed in the intestines, but still a little below that of the blood plasma, which averages around 6.18 per cent. Other constituents, such as the non-protein nitrogen, sugar, urea, amino acids, cholesterol and electrolytes, are about the same as blood serum. The lymphocyte and eosinophil counts in chyle are, however, considerably higher than in the circulating blood. Lymph also clots, but more slowly than serum, as the thromboplastin derived from blood platelets is poorly represented and there is a relative excess of antithrombin.

The chief characteristics of chyle are as follows. Because of its finely emulsified fat content, it has a white or "milk" appearance. On standing, it may form a cream layer on top, a milk layer in between and a cellular layer at the bottom. It is practically odorless and has a specific gravity of 1.010 to 1.021 and alkaline reaction. It contains lipoid substances which are stained by Sudan III, a lipophilic dye. Smear shows varying numbers of white cells with lymphocytes predominating. Culture usually results in no growth and if the fluid is alkalinized and shaken with ether, it will clear.

Etiology of Chylothorax

The etiologic factors of chylothorax may be considered under two major classifications, the traumatic and the non-traumatic. In 1932, MacNab and Scarlet[10] found one-third of the previously reported cases of chylothorax followed trauma. Recent years, however, the increasing number of intrathoracic surgical procedures has made the proportion conspicuously greater. Garamella[6] collected 128 cases of traumatic chylothorax during the period from 1695 to 1956. To this may be added the case presented at the Upjohn TV Grand Rounds held on March 18, 1959.

The types of trauma responsible for the development of chylothorax have been sudden violent hyperextension of the spine, penetrating wounds such as were inflicted by bullet, steel fragment or knife, fractured ribs, clavicles and vertebrae, accidental lacerations occurring in the course of surgical procedures in the mediastinum as well as in the neck and abdomen adjacent to the upper and lower orifices of the mediastinum respectively, severe coughing spells, convulsions, blast injuries, and injuries to infants at the time of delivery or shortly thereafter. The most common type is the hyperextension injury from falls, bruises, et cetera, in which the thoracic duct is suddenly and acutely extended. Under such circumstances, a laceration may result to the rather fragile thoracic duct through the compression by the right crus of the diaphragm. Within recent years, however, the number of cases incident to post-operative injuries has conspicuously increased. There is every reason to anticipate that the number will continue to increase, in view of the ever-growing frequency of extra- and intrapleural operations. McCoy[11] and Gaspar[12] reported a case each of traumatic chylothorax as complication of aortography.

Chylothorax of nontraumatic origin occurs most frequently in association with metastatic malignant disease which gives rise to obstruction to the duct and/or its radicles by implants within the lumen or by pressure on the duct from adjacent nodes in the supraclavicular area. Invasion of the subclavian or inominate veins, or even the superior vena cava is fairly common. There are included abdominal carcinomas, especially those of the stomach, lymphosarcoma, and Hodgkin's disease.

Tuberculous lymph nodes in the mediastinum may either compress or ulcerate into the thoracic duct. Olsen and Wilson[8] gave tuberculous paravertebral abscess as the apparent cause of the case they reported. Other miscellaneous causes listed by Yater[13] included lymphangiectasis, localized thrombosis of the subclavian vein in the region of its junction with the duct, filarial obstruction, and erosion by aneurysms. To these should be added the spontaneous group that occurs in children under one year of age and may be due to some congenital anomaly or atresia in the lymphatic system.[5] Also, there have been cases reported in which no obvious etiologic factor could be demonstrated, the so-called idiopathic group classified by more recent writers.

Chylothorax may occur in either pleural space or sometimes is bilateral, and occasionally in association with chylopericardium or chylous ascites. Listerud *et al*[14] reported a very unique case of "3-cavity" chylous effusion involving the two pleural and the abdominal cavities. Right chylothorax is much more common than left chylothorax, presumably due to the duct traversing most of the thorax on the right side of the vertebral column. For the same reason, injuries of the upper part of the thorax are likely to give rise to chylothorax on the left side while injuries in the lower two-thirds of the thorax may result in chylothorax on the right.

Symptoms and Signs of Chylothorax

Chylothorax usually follows a rather characteristic course. In most nontraumatic cases, it is only conjecture as to when the chylothorax first appears. The onset is most often insidious, and at times the chyle leakage may be very slow. On the other hand, the development of chylothorax due to trauma is usually a dramatic one. There is generally a latent interval between the trauma and the initial symptoms of chylothorax. This interval may range from a few hours to months or even years. Beatty[15] reported a case which suggested a latent period of six and one-half years between injury and appearance of chylothorax. The delay is apparently due to retropleural accumulation of chyle, which has been described as "retropleural chyloma"[5] and may simulate the appearance of a mediastinal mass in the roentgenogram. After a short delay, then, this extrapleural collection of chyle ruptures into the pleural space, secondary to impaired blood supply and local ischemic necrosis, and chylothorax develops rather rapidly. At the onset, therefore, dyspnea and shock are the predominant symptoms. They are not unlike the pressure symptoms of a sudden massive hydrothorax, or especially hemothorax, producing mediastinal compression and shift. At times, they are apt to be severe, as the result of the sudden cardiorespiratory embarrassment produced by the fluid mass. Thoracentesis gives dramatic relief, but the fluid usually reaccumulates rapidly and necessitates frequent aspirations. Associated with the pressure symptoms is a rapid decline in body weight due to the continuous loss of chyle, resulting in severe depletion of large amounts of digested and absorbed fat, protein, water and electroytes while the chylothorax is accumulating. In some cases, peripheral edema, wasting and exhaustion of the patient continue to progress, and the condition is fatal within a few weeks. In others, after the initial accumulation of fluid has occurred, a state of partial equilibrium is established. The mediastinum becomes stabilized so that pressure symptoms are no longer severe. At the same time, the pleural accumulation under pressure may serve to reduce the leakage. Hence the speed of weight loss is reduced and although the individual does not regain what he has lost, no further decline occurs. These patients may then live for a good many years carrying a large chylothorax but maintaining fairly good health. The prognosis in patients with nontraumatic chylothorax has been generally very poor, due to the nature of the underlying disease. With the traumatic cases, however, it appears to have shown more favorably recently, thanks to the recent improved surgical and laboratory techniques. Lampson's success in curing a patient with traumatic chylothorax in 1946, by intrathoracic ligation of the thoracic duct has practically revolutionized the treatment of traumatic chylothorax.

Diagnosis of Chylothorax

The diagnosis of chylous effusion is simple; it is established by the character of the pleural fluid. The latent period before onset of symptoms is suggestive. Physical and roentgenologic signs are merely those of pleural effusion, irrespective of character. The relative radiolucency of fat, however, might possibly suggest chyle as the type of fluid present. An initial concomitant hemothorax, following injuries of the thoracic duct, may at first cause considerable confusion, but after repeated

tappings, the fluid will clear and its true character can be readily recognized.

Treatment of Chylothorax

Much has been written on the management of chylothorax. Seaman[4] has tabulated the most complete list of methods used from 1921 through 1952. It is beyond the scope of this paper to give more than an enumeration of some of the more important procedures used. The general plan has been directed toward the relief of mechanical compression, the maintenance of nutrition, and measures to halt the loss of chylous fluid. The consensus of opinion of most authors is that the chest should be aspirated only when absolutely necessary for the relief of dyspnea. The accumulated chyle in the pleural cavity, when not sufficient to cause pressure symptoms, may favor the closing of the fistula, whereas removal of fluid merely permits further reaccumulation and thus increases the patient's loss of food. The limitation of fluid intake and the avoidance of a high fat diet have been used in an attempt to slow the production and flow of chyle, but apparently without much benefit. On the other hand, as many as one-half of the recorded cases of chylothorax have recovered after simple aspiration of the chyle, with or without replacement of the chyle.[16]

When there is a continued loss of large quantities of chyle, the maintenance of nutrition is often a very difficult problem to solve. The depletion of fat, protein, water and electrolytes must be interdicted as rapidly as possible, through adequate replacement of these nutritional elements. A high protein diet is helpful. So is the transfusion of blood and blood substitutes, including the most important electrolytes. Berry[5] advocated daily injections of blood plasma, in amounts equivalent to the loss of chyle, while Meade and his co-workers[16] discouraged its use because it produced a fatal hepatitis in one of their cases. Replacement of the aspirated chyle by means of intravenous administration was first attempted by Oeken[8] as early as 1908, but his patient did not recover. Bauersfeld,[17] in 1937, used the method successfully, without knowledge of it having been used before. Several other instances[18-23] have been recorded since. However, because of the sudden death following this procedure, apparently of an anaphylactic nature, that occurred in two cases,[20,21] many more recent authors have discouraged its use until the causes of the anaphylactic reactions have been established and under control. Theoretically, the procedure is not any different from an autogenous blood transfusion, as chyle normally flows into the blood stream. The autogenous nature of the aspirated fluid should offer negligible causes for anaphylactic reactions unless the fluid has been altered physically and/or chemically.

The definitive measure to halt the loss of chyle is obviously arresting of the chyle at its source, either by ligation or by pressure. Unfortunately, this is not always successful. Even when exploration of the mediastinum is permissible, the problem of finding the chyle leak may be difficult. Furthermore, the necessarily extensive mediastinal dissection may even cause further complications, such as converting the chylothorax into a bilateral process, injuring other vital organs, etc. It would therefore appear that more conservative means should be tried before attempting any drastic procedures. Frequent thoracenteses have been almost universally employed. They serve to relieve any cardio-respiratory disturbances and in some cases, such as in one of the two cases herein reported, to obliterate the chylothorax. However, the procedure should not be continued unless there is evidence of decrease in the amount of chyle leakage. The hope of spontaneous closure of the chyle fistula is not justified when the fluid tends to reaccumulate rapidly. Closed drainage, with or without suction, has been successful in several instances.[18,24] Pneumothorax for the purpose of discouraging the flow of chyle has been done without great success. The injection of sterile broth[19] or other fibrinogenic agents, gomenol[25] for example, into the chest cavity may be of value in sealing off the leaking duct. Irrigations with azochloramid[26] to stimulate fibrinous reaction have been resorted to with some benefit. Phrenicotomy has been employed twice[19,23] without any noticeable effect on the course of the disease, but the third case,[27] however, was cured as the result. In this case, the elevation of the diaphragm has presumably closed the perforation of the thoracic duct just above the diaphragm. Pneumoperitoneum[28] was tried only once with doubtful result. Brown[29] successfully drained a "retropleuralchyloma" with the thought that a free external flow of inspissated chyle would encourage healing of the rupture in the duct. In cases of chylothorax due to lymphoblastoma, or secondary to malignant disease in general, deep roentgen therapy should be tried with the expectation that in some instance the obstruction of the thoracic duct will be relieved,

at least temporarily. Usually, however, in such cases not much general benefit from the treatment can be expected, as they are, for the most part, suffering from far-advanced tumors. All the aforesaid methods have been instituted in the hope that spontaneous closure of the mediastinal sinus would occur. When these conservative measures fail, then one is justified in risking a direct attack through the chest at or below the site of the rupture with the intent to ligate the duct low in the mediastinum. This has been done successfully, with very little fatality, since 1946, when Lampson accomplished the first successful intrathoracic ligation of a human thoracic duct.[30] And yet only the year before, 1945, Florer and Ochsner[23] expressed the consensus of existing surgical opinion that primary surgical attack on the leaking intrathoracic portion of a duct had been uniformly fatal.

Report of Cases

Case 1.—A. J. A. (Case No. 5321), a forty-one-year-old white man, was admitted to the American Legion Hospital on April 18, 1951, for diagnosis and treatment. He had developed a stricture of the lower portion of the esophagus in June of 1948, following ingestion of one to two ounces of K-78, a compound containing 40 per cent of potassium hydroxide, in a suicidal attempt. The immediate result had been a very severe burn of the mouth, tongue, oropharynx, hypopharynx and the esophagus. At that time, a gastrostomy was resorted to; it was closed in August, 1948. Two months later, he developed a pyloric stenosis, which required a posterior gastroenterostomy. Meanwhile, his symptoms of esophageal stricture recurred, for which gastrostomy was again performed in April, 1949. The gastrostomy was finally closed in October, 1950, after a lapse of eighteen months. During the next few months, the patient had to dilate his esophagus by himself from above on numerous occasions. Around January, 1951, he developed a productive cough, sometimes bringing up large quantities of "milk-like" sputum, pain in left side of chest with inability to sleep on that side, anorexia, insomnia, occasional chilly sensations, occasional "white" urine, loss of over twenty-five pounds and progressive loss of strength. Chest x-rays on March 12, 1951, revealed a pleural effusion on the left side; one taken on February 26, 1951, had been essentially negative. Immediate hospitalization was therefore recommended, but as there was no bed available at the time, patient was not admitted until April 18, 1951.

At the time of admission, the patient also stated that he could not recall having had any tuberculosis contacts, although he himself had had tuberculosis of the left ankle in 1947, which healed satisfactorily after a few months with immobilization. The past history also revealed the fact that the patient was once a lightweight boxer some twenty years ago, when he received body injuries on several occasions, but without knowledge of any fractured ribs. Further questioning, however, elicited the information that just a few days prior to the onset of his chest pain he had done a number of back flips, to which he had been unaccustomed for some time.

Physical examination revealed a well-developed, although of small build, white man with a rather high-pitched voice. Temperature, pulse and respiration rates appeared normal. The blood pressure was 138/90. Examination of the lungs revealed decreased fremitus, flatness, absence of breath sounds over the left base antero-laterally and posteriorly, with medium moist rales immediately above the area. The heart appeared normal and not displaced. The abdomen was essentially negative other than for a recent and well-healed postoperative epigastric scar. The right foot was "clawed," the result of tuberculosis in 1947.

Laboratory studies disclosed a total erythrocyte count of 3,900,000 per cu. mm., and 14.1 Gm. of hemoglobin per 100 cc. The total leukocyte count was 5,000 with a normal differential. The erythrocyte sedimentation rate was 2 mm. per minute (Wintrobe and Landsberg). The urine was amber in color and had a specific gravity of 1.025 and a reaction of pH.6; was negative for albumin and sugar but microscopically revealed a small number of erythrocytes, leukocytes and fat globules. A serologic test for syphilis was negative. Two sputum specimens were found negative for acid-fast bacilli on concentrated smears and cultures. Skin reaction to tuberculin was negative in 1:100 dilution of Old Tuberculin.

Roentgenographic examination of the chest (Fig. 1) revealed evidence of a healed fracture of the seventh, eighth and ninth right anterior ribs. The right diaphragmatic cupola appeared tented while the left costophrenic angle was completely obliterated with a dense shading with decreasing density upward to the fourth anterior rib. No parenchymal lesions were noted. Fluoroscopy demonstrated the fluid to be in the posterior sulcus, and in the ingestion of a thick mixture of barium the esophagus was well outlined and the barium passed quite freely into the stomach. The lower half of the esophagus, however, appeared somewhat narrower than usual, especially at the cardia. No extravasation of the contrast material from the esophagus was visualized.

On April 19, 1951, the day following admission, a left thoracentesis was performed. It yielded 1000 cc. of creamy fluid, which was confirmed as chyle by the laboratory report with the following characteristics: creamy, opaque, alkaline, clearing on addition of ether and microscopically showing numerous fat globules and histiocytes and few pus cells. Papanicolau stained smears and paraffin sections did not show anything resembling malignant cells. Culture of specimen was reported without growth after two months.

Further thoracenteses were done daily during the next four days, each emptying the cavity and yielding as much as 1500 cc. of creamy fluid. The diagnosis of left chylothorax was thus firmly established and in view of the rapid reaccumulation of the fluid and the progressive deterioration of the patient's condition, the hope of spontaneous closure of the chyle fistula by further thoracenteses was not justified. More radical treatment

was therefore deemed necessary, and the patient was transferred back to the University Hospital at Ann Arbor on April 27, 1951, where he had had his previous abdominal surgery and esophageal dilatations.

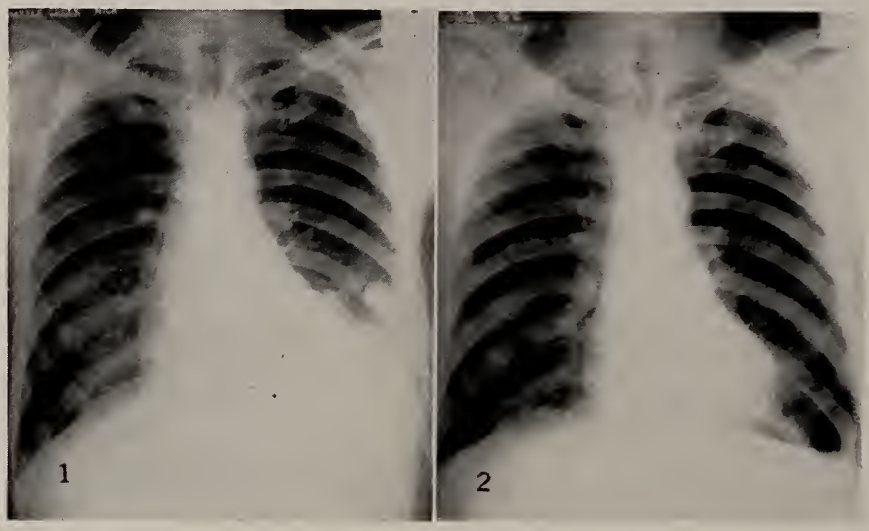


Fig. 1 (Case 1). Chest roentgenogram taken on admission (April 19, 1951) showing fluid at the left base.

Fig. 2 (Case 1). Chest roentgenogram taken on January 23, 1952, approximately six months after the ligation of the thoracic duct and the lung fully re-expanded.

While at the University Hospital three thoracenteses were done which yielded 1300 cc. of chyle on May 3, 750 cc. on May 4, and 1300 cc. on May 10, 1951. A left thoracotomy was performed on May 15, with insertion of drainage tube into the pleural cavity. Continuous drainage by suction was maintained until July 6, 1951. On June 15, 1951, a bronchoscope was inserted through the sinus in the left mid-axillary line and the fistula in the thoracic duct was cauterized with 30 per cent silver nitrate. This procedure was only partially successful in reducing the amount of chyle drainage. Cauterization was therefore repeated on July 6, following which time the patient had only a very minor amount of serous drainage from the sinus. He was subsequently discharged on July 11, 1951, with instruction to return to the Thoracic Surgery Clinic weekly for shortening of the drainage tube.

On July 28, 1951, the patient began to cough and raise a fluid-type of sputum containing stringy-white curds similar to the drainage from the sinus tube. This seemed to be present almost constantly, often being raised by simply clearing his throat. Furthermore, he was unable to lie horizontally as he would become orthopneic and begin to cough up copious amounts of this sputum. He was therefore readmitted to the University Hospital on July 31. At that time, he was found well nourished but with a loud rasping type of expiration and tubular inspiratory sounds. The drainage tube was still in his left lateral chest wall. Lipiodol injection through it demonstrated only a small pocket at the distal end of the tube and without any evidence of communication with the lung parenchyma. On the other hand, postural drainage was necessary to relieve dyspnea due to the constant production of the above-mentioned curd-like sputum. Finally, on August 8, a right thoracotomy was done and the thoracic duct ligated immediately above the diaphragm, with the hope of treating the bronchochylous fistula effectively. The patient tolerated the procedure well and for several days postoperatively continued to cough up progressively less chyle-filled sputum. At the time of discharge on August 26, only an occasional small speck in the sputum was seen. In addition, fluoroscopy of the chest at that time disclosed no evidence of fluid in the left base, only some pleural thickening. The patient returned to the Clinic on three different occcasions, the last being on September 29, 1951. His sinus tract appeared to have completely closed and on examination his lungs were found clear and there was only a moderate amount of distortion of the right leaf of the diaphragm.

The patient was last seen and his chest x-rayed at the American Legion Hospital on February 23, 1952 (Fig. 2), when he applied for a job as kitchen help. He appeared well and claimed he had been completely free from his chylous symptoms very shortly after his discharge from the University Hospital in August, 1951. The chest film demonstrated only moderate pleural thickening of the left base. However, he did not stay long on his job; he was discharged after only two weeks of employment for being intoxicated. Efforts to locate him since have failed.

Case 2.—T. A. J. (Case No. 5504), a thirty-seven-year-old colored man, was admitted to the American

Legion Hospital on October 5, 1951, with the diagnosis of left pleurisy with effusion. He had been asymptomatic until September 11, 1951, when he suddenly developed shortness of breath on climbing upstairs and night-

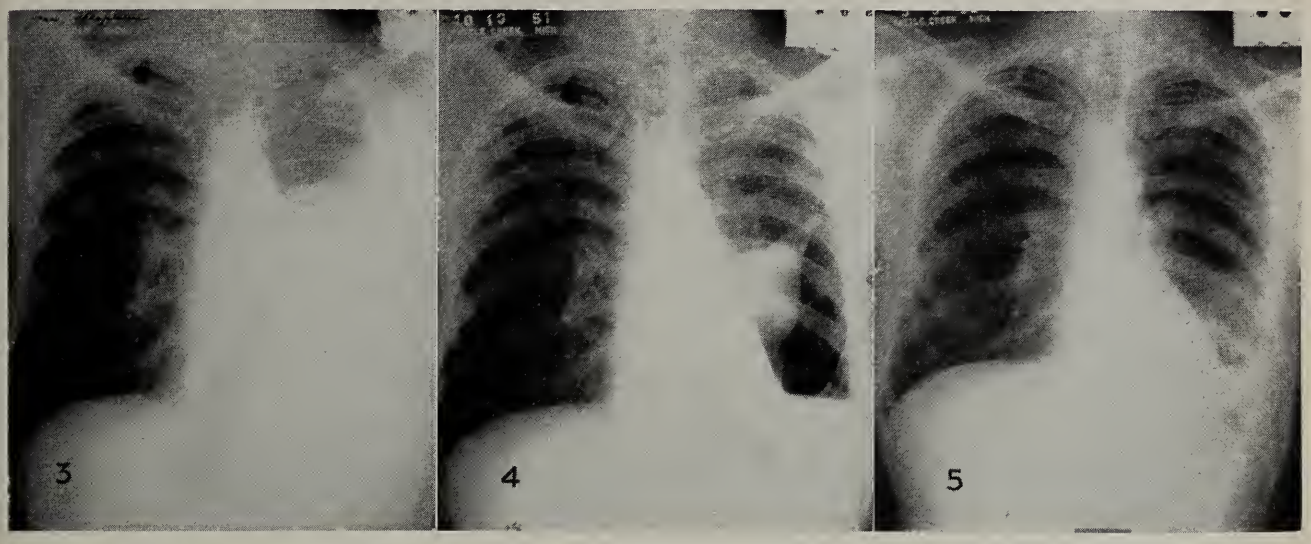


Fig. 3 (Case 2). Chest roentgenogram taken on admission (October 8, 1951) showing large collection of fluid in the left hemithorax.

Fig. 4 (Case 2). Chest roentgenogram taken on October 13, 1951, after almost complete replacement of the chyle by air, shows atlectasis of the lower lobe and possibly the lower portion of the upper lobe of the left lung but no evidence of other abnormality other than the thickened pleura.

Fig. 5 (Case 2). Chest roentgenogram taken on May 3, 1952, some two and one-half months after repeated aspirations, shows a relatively small obliteration of the left costophrenic angle. The pulmonary atelectasis has apparently re-aerated, but the heart is still somewhat displaced to the left.

sweats that night. The following morning he went to the Veterans Administration Office, Detroit, for help. Chest x-rays then disclosed an "abnormal condition" on the left hemithorax. He was therefore referred to the Herman Kiefer Hospital in Detroit on September 19. There he had another chest film taken and the diagnosis of left pleurisy with effusion was made. Finally, he was admitted to the American Legion Hospital for diagnosis and treatment.

On admission, the patient stated that except for the occasional sharp pain over the left parasternal region he had been quite comfortable since the onset of his illness. Physical examination revealed a well-developed and well-nourished colored male of thirty-seven. He appeared very well and exceedingly co-operative. His weight was 155 pounds. His temperature, pulse and respiration rates were normal. Blood pressure was 125/90. The chest showed an appreciable bulging of the left base, where flatness and absence of breath sounds were noted. The cardiac dullness appeared only very slightly displaced to the right. X-ray inspection revealed a definite black-out of the lower two-thirds of the left lung (Fig. 3). The right lung showed only a few small nodose lesions along the upper bronchus, extending into the parenchyma in the first anterior interspace. A sputum concentrate was positive for tubercle bacilli on smear. Blood Kahn was negative. The sedimentation rate was 3.3 mm. per minute (Wintrobe and Landsberg). Blood counts were within normal limits. Urinalysis was normal, except for the presence of few white blood cells.

The first thoracentesis was done on October 9, 1951, four days after admission. One thousand cc. of a greenish milk-like fluid was removed. More could have been obtained but for the onset of syncope-like discomforts. Immediate fluoroscopy revealed the fluid shadow only slightly decreased but the heart now somewhat displaced to the left. The fluid specimen was found to contain a large amount of fat by the Sudan III test, a few erythrocytes, lymphocytes and degenerated polynuclears on Wright-stained smears. Malignant cells were not found. The pathologist diagnosed the fluid as that of a "chylous hydrothorax."

On October 13, 1951, the second aspiration was done. It yielded 850 cc. of the same greenish milk-like fluid. An equal amount of air was introduced, with the purpose to determine the nature of the underlying portion of the left lung. There appeared to be an atelectatic collapse of the lower lobe and possibly the lower portion of the upper lobe, with the pleura considerably thickened (Fig. 4). The pneumothorax thus created disappeared completely during the next few aspirations.

Up to early March, 1952, twenty-two repeated aspirations were done. The last two resulted in dry taps. The fluid became progressively less in quantity and loculated in pockets and finally serous in character. The total quantity removed was only 4,952 cc. The serial roentgenograms showed gradual and progressive clearing of the atelectatic portion of the lung and the fluid density, leaving only a relatively small obliteration of the left costophrenic angle, as shown in the film taken on May 3, 1952 (Fig. 5). A spinal film taken on the same day showed no evidence of vertebral pathology.

A bronchoscopic examination was made on December 5, 1951. No evidence of endobronchial disease was observed. In addition to bed rest, Streptomycin 1 Gm. three times weekly and para-Aminosalicylic Acid 4 Gm. three times daily were given from the time of admission for a total dosage of 40 Gms. and 1,080 Gms. respectively. During the first month after admission, the patient had a low-grade temperature from 99 to 100 F. and a weight loss from 155 to 146 pounds. Thereafter, he improved steadily, with his weight increased to 170 pounds. His sputum was positive for tubercle bacilli on concentrated smears on two occasions only, in October, 1951, and January, 1952. Several subsequent follow-up monthly specimens all proved negative. The patient was therefore placed on graduated exercise as of May 1, 1952, and finally discharged in September. He has not been seen since for follow-up.

Comment

It is interesting to note that the two cases of chylothorax herein reported have been the only two admitted, and within six months apart, to the American Legion Hospital during its existence of over thirty years for the exclusive treatment of pulmonary tuberculosis. It is certainly equally unique to the writer as they have been the only two cases he has been given the opportunity to diagnose and treat in his thirty years' experience in the field of phthisiology.

These two cases of chylothorax represented characteristics of unusual interest from the standpoint of history, of mode of origin, and of methods of management. However, their exact etiology has not been confirmed. The first case apparently belonged to the traumatic group, being incident to an esophageal stricture following a severe caustic burn. The repeated dilatations of the esophagus could have traumatized the delicate thoracic duct sufficiently for it to leak, especially if there had been tissue fixation due to the burn. Similarly, the back flips which the patient did a few days prior to the onset of his chest pain could have caused sufficient hyperextension of the spine and subsequent rupture of the thoracic duct. Whether the several abdominal surgical procedures had been factors etiologically, it is only a conjecture. The patient showed evidence of bronchochylos fistula and left pleurisy from the onset of his symptoms, some two months before his admission to the hospital. Although his loss of over twenty-five pounds and loss of strength had indicated considerable loss of chyle from the thoracic duct through the bronchochylous and pleural fistulas and apparently also some through the urine, he did not suffer from extreme cardio-respiratory distress or exhaustion. The pleural cycle, however, did reaccumulate rapidly after each aspiration. Thoracotomy and closed drainage with suction together with cauterization of the fistula in the thoracic duct finally controlled the flow of chyle in the pleural cavity. The recurrence of the troublesome bronchochylous fistula, however, required ligation of the thoracic duct immediately above the diaphragm in the right thorax.

The second case appeared of a nontraumatic type. It gave a rather sudden onset, but also without extreme cardio-respiratory distress. The presence of a positive sputum for tuberculosis and an atelectasis of the lower mid-portion of the left lung strongly suggested tuberculosis as the etiological agent. Tuberculous mediastinal lymph nodes had probably ulcerated into the thoracic duct directly, or the tuberculous inflammatory process had fixed the duct to the underlying vertebrae and the duct ruptured due to sudden hyperextension. The latter appears very likely, as substantiated by the sudden onset. Possibly, also, any retraction caused by healing tuberculous lesions, if any present, of the lung could be responsible for the sudden rupture of the duct and its radicals. The pulmonary atelectasis could be the result of the chylothorax and/or bronchial stenosis from endobronchial tuberculosis or bronchial tuberculous glands through pressure or ulceration. In the management of this case, it was not necessary to resort to surgery other than repeated aspirations of the fluid. The chylous fluid gradually decreased in amount with each successive tapping. There were altogether twenty-two aspirations required; they yielded a total of only 4,952 cc. of chylous fluid. Other therapy consisted of sanatorium care and chemotherapy including Streptomycin and para-Aminosalicylic Acid for the underlying tuberculosis. The writer believes that this was possibly the first case of chylothorax incident to tuberculosis reported in which chemotherapy with Streptomycin and para-Aminosalicylic acid was used. What part this relatively new therapy has

played in the obliteration of the chylothorax is difficult to evaluate.

Summary

Chylothorax as a disease entity has been briefly reviewed, together with a report of two cases, one incident to an esophageal stricture and the other to tuberculosis of mediastinal lymph nodes. Both were successfully controlled, the former by cauterization of the fistula in the thoracic duct and ligation of the thoracic duct immediately above the diaphragm and the latter by the conservative means of repeated aspirations and chemotherapy including Streptomycin and para-Aminosalicylic Acid.

Acknowledgment

Acknowledgment and appreciation are extended to the University Hospital Thoracic Surgical Service, Ann Arbor, for providing the necessary surgical notes on Case 1.

References

1. Nix, J. T., Albert Mathew, and Dugas, J. E.: Am. J. Gastroent., 28:40-55, 1957.
2. Brescia, M. A.: Arch. Pediat., 58:345-356, 1941.
3. Jahsman, W. E.: Ann. Int. Med., 21:669, 1944.
4. Seaman, J. B.: J. Thorac. Surg., 27:529-539, 1954.
5. Berry, William H.: J.A.M.A., 133:319, 1947.
6. Garamella, Joseph J.: Arch. Surg., 76:46-53, 1958.
7. Lee, F. C.: Bull. Johns Hopkins Hosp., 33:21, 1922.
8. Olsen, Arthur M., and Wilson, George T.: J. Thorac. Surg., 13:53, 1944.
9. Loe, Ralph H.: Arch. Surg., 53:448, 1946.
10. MacNab, D. S., and Scarlett, E. P.: Canad. M.A.J. 27:29, 1932.
11. McCoy, Malufand: Am. J. Roentgenol., 75:533, 1955.
12. Gaspar, Max R.: Arch. Surg., 75:193-196, 1957.
13. Yater, W. M.: Ann. Int. Med., 9:600-616, 1935.
14. Listerud, Mark B., Harkins, Henry N., Loe, Ralph, Thomas, George, and Nyhus, Lloyd M.: Am. J. Surg., 96:438-444, 1958.
15. Beatty, Oren A.: J. Thorac. Surg., 6:221-225, 1936.
16. Meade, Jr., R. H., Head, J. R., and Moen, C. W.: J. Thorac. Surg., 19:709, 1950.
17. Bauersfeld, E. H.: J.A.M.A., 109:16-18, 1937.
18. Smith, D. D., and Woliver, E.: Arch. Surg., 43:627-632, 1941.
19. Schnug, Edward, and Ransohoff, Joseph: Surgery, 14:278-281, 1943.
20. Peet, M. M., and Campbell, K. N.: Univ. Hosp. Bull., 9:2-3, Ann Arbor, 1943.
21. Whitcomb, B. B., and Scoville, W. B.: Arch. Surg., 45:747-753, 1942.
22. Dorsey, J. F., and Morris, G. E.: J.A.M.A., 119: 337-338, 1942.
23. Touroff, Arthur S. W.: J. Thorac. Surg., 19:723, 1950.
24. Effler, Donald B.: Cleveland Clinic Quarterly, 19:6, 1952.
25. Matson, R. C., and Stacy, J. W.: Dis. of Chest, 6: 332-336, 1940.
26. Gordon, J.: Ann. Int. Med., 13:1998-2004, 1940.
27. Nowak, S. J. G., and Barton, P. N.: J. Thorac. Surg., 10:628-634, 1941.
28. Florer, R., and Ochsner, A.: Surgery, 17:622-629, 1945.
29. Brown, A. L.: Arch. Surg., 34:120-128, 1937.
30. Lampson, R. Starr: J. Thorac. Surg., 17:778, 1948.
31. Shumacker, Harris B., and Moore, Thomas C.: Surg. Gyn. & Obs., 93:46, 1951.
32. Frazell, Edgar L., Harold, Jr., Charles C., and Resmussen, Loton: Ann. Surg., 134:135, 1951.
33. Baldridge, P. R., and Lewis, R. V.: Ann. Surg., 128:1056, 1948.
34. Rumel, William R.: J. Thorac. Surg., 19:721, 1950.
35. Klepser, R. G.: J. Thorac. Surg., 19:722, 1950.
36. Harper, F. R.: J. Thorac. Surg., 19:720, 1950.
37. Wu, Jack Foy: Tuberculology, 13:45-56, 1952.
38. Baffles, Thomas G., and Potts, Willis J.: Ann. Surg., 139:501-505, 1954.
39. Baron, Charles, and Reardon, Marc: J. Thorac. Surg., 28:11-14, 1954.
40. Winters, Robert W., Stephens, H. Brodie, and Olney, Mary B.: J. Pediat., 45:446-456, 1954.
41. Stirlacci, Joseph R.: J. Pediat., 46:581-586, 1955.
42. Maloney, Jr., James, and Spencer, Frank C.: Surgery, 40:121-128, 1956.
43. Randolph, Judson G., and Gross, Robert E.: Arch. Surg., 74:405-419, 1957.
44. Fishkin, Seymour, and Neumann, Marcel: Chicago Med. Sch. Qtrly, 19:35-39, 1958.

DIET IN ARTHRITIS

A special dietary regimen which restricts water intake and administers cod liver oil on a fasting stomach produced major clinical and hematological improvement in arthritis and rheumatism at the Brusch Medical Center, in Cambridge, Mass. Restriction of all water intake to a single portion taken one hour before breakfast is an integral part of the treatment.

In a series of ninety-eight patients who continued the regimen for six months, ninety-two (93 per cent) obtained marked relief and eighty-nine (90 per cent) showed favorable changes in blood chemistry. The blood sedimentation rates dropped consistently from averages of twenty to thirty (Wintrobe) to normals of zero to twelve within eight to eighteen weeks. These findings provide an objective confirmation of the clinically observed reduction of the inflammatory process.

Intravascular agglutination with blood sludging is consistently found in arthritis. A comparison of the normal and arthritic patterns in the present study indicated that sludged blood resulting from positive intravascular agglutination may be an etiological factor. Cod liver oil taken on a fasting stomach was found to reduce blood sludging and also helped relieve the symptoms of arthritis.

The blood chemical changes and clinical results suggest that adherence to the prescribed regimen on a long-term basis may produce sustained improvement in arthritis.—Brusch, C. A., and Johnson, E. T.: New dietary regimen for arthritis. J. Nat. M.A., 51:266 (July) 1959.

Histoplasmosis in Michigan

Winthrop N. Davey, M.D.,
Mary E. Clifford, M.D.,
and Nancy E. Furstenberg, M.D.
Ann Arbor, Michigan

HISTOPLASMOSIS, an infectious disease due to the fungus, *Histoplasma capsulatum,* is common in the state of Michigan. This infection is endemic, particularly in midwestern United States, and since its description by Darling[4] in 1906, a tremendous number of epidemiological, clinical, laboratory and pathological data concerning this disease have been accumulated. Though many of these data have been gathered in the past ten years, histoplasmosis has been recognized in Michigan for some twenty years.[1] The report of Parsons and Zarafonetis,[14] in 1945, added seven fatal cases from the University of Michigan Hospital experience to the seventy-one then described cases. A number of subsequent papers have discussed the problem of this disease in Michigan.[9,16,20]

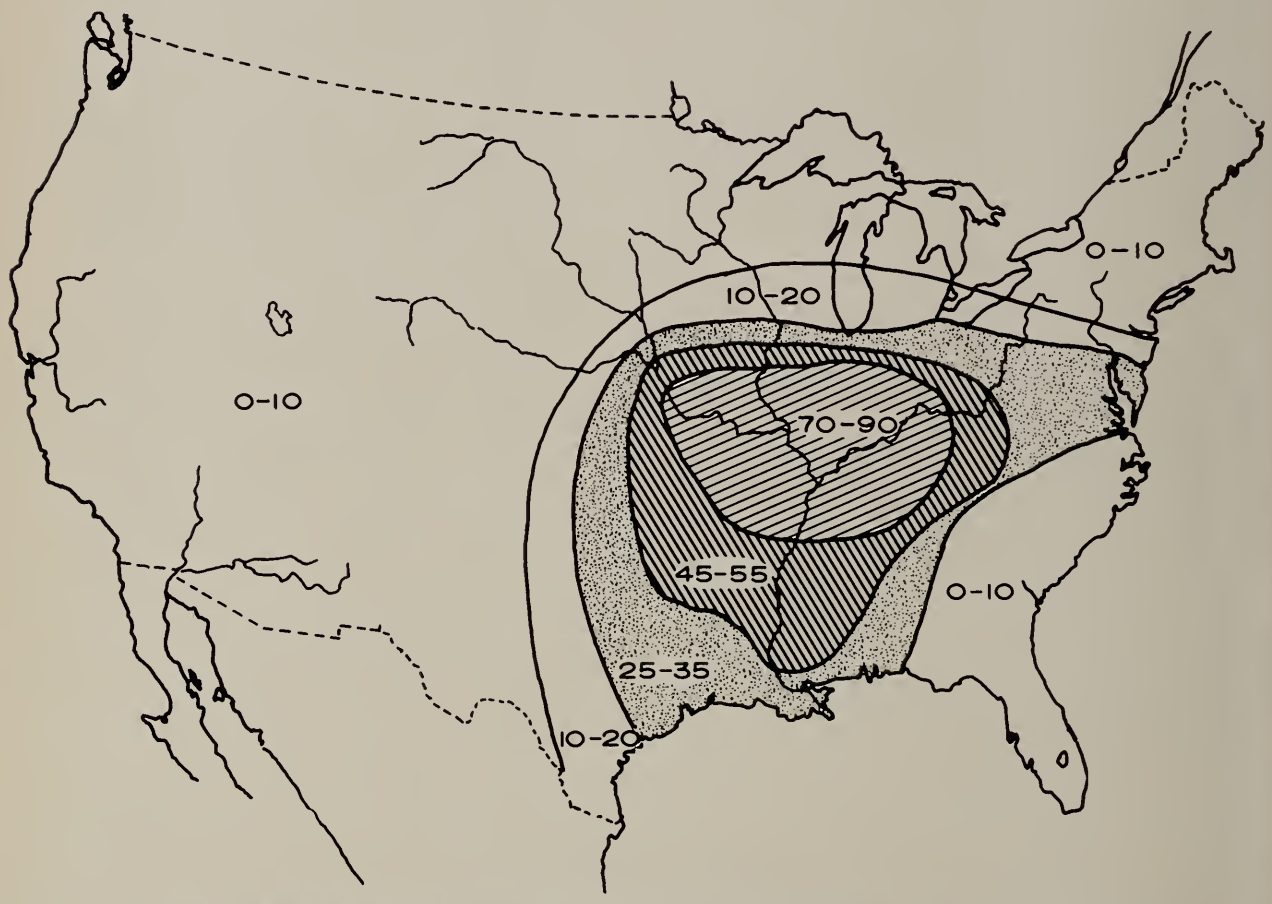


Fig. 1. Prevalence of histoplasmin sensitivity in the United States (after Furcolow[7]).

Prevalence

The endemic areas of human infection with histoplasmosis, as disclosed by histoplasmin skin testing, have been delineated by Furcolow[7] and Manos, *et al.*[13] Figure 1 indicates the distribution of such

From the Medical Tuberculosis Unit, Department of Internal Medicine, The University of Michigan Medical Center.

histoplasmin sensitivity within the United States. Figure 2 has been adapted from Manos, *et al*[13] to illustrate the incidence of this infection among young adults according to county of residence.

large segments of the population of Michigan, though reports have appeared[1,3,8,12,17,20] indicating that ten to twenty per cent of the adult population was infected. Student nurses, when life-long resi-

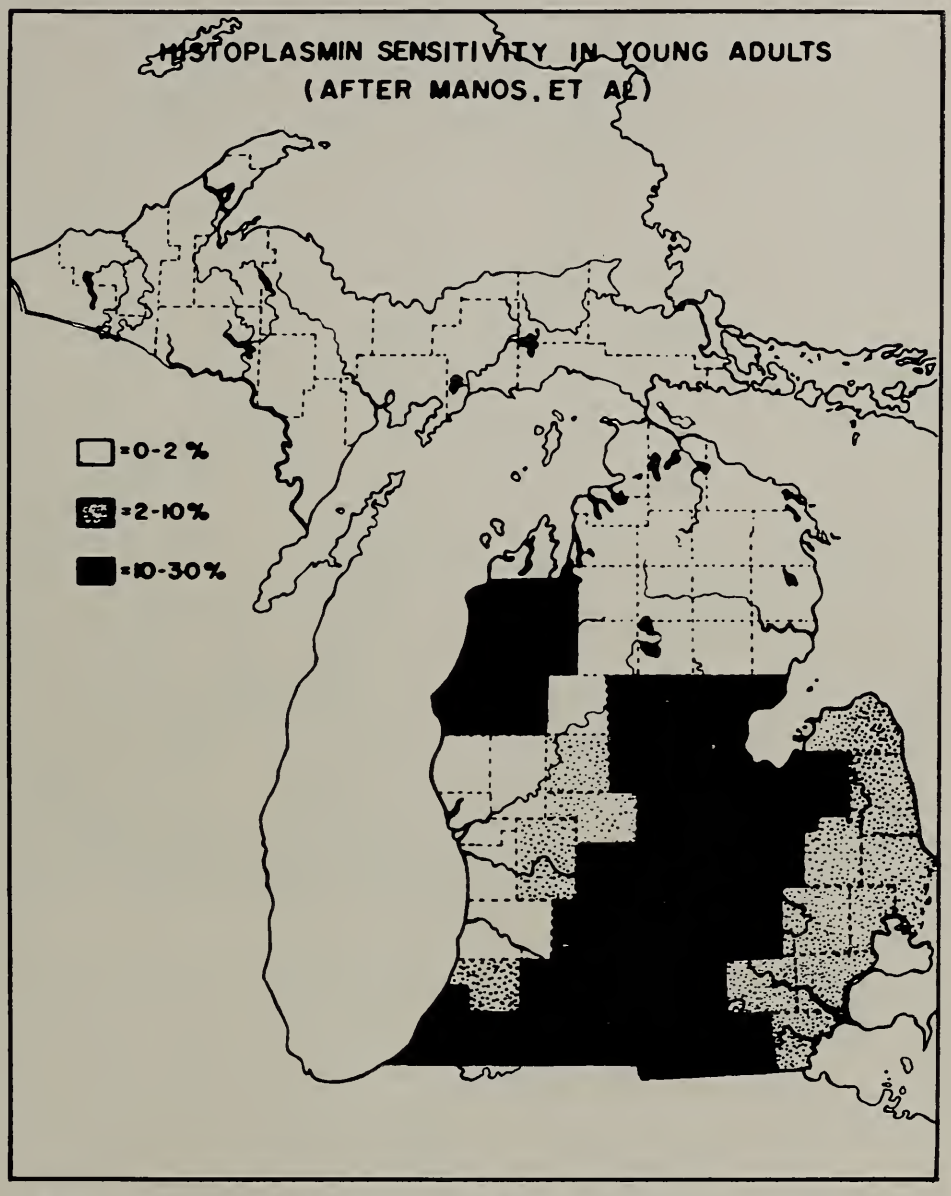


Fig. 2. Histoplasmin sensitivity in young adults according to county of residence (adapted from Manos, *et al.*, 1956).

These studies have demonstrated that numerous life-long residents of Michigan have been infected with histoplasmosis.

A survey of the adult patients on the general medical wards of University Hospital disclosed that twenty-two per cent of these residents of lower Michigan reacted to histoplasmin (Table I). Patients evaluated in the medical chest clinic of this hospital reacted to histoplasmin in 37.3 per cent of instances. No adequate data are available for

dents of the state, have been reactors to histoplasmin in 6.6 per cent of instances on matriculation at the University of Michigan School of Nursing.

Certain highly endemic areas of infection have been discovered by the broader use of histoplasmin testing in the school children of Washtenaw County (Fig. 3). Of particular interest are the children of the Milan, Michigan, schools who react in 61.5 per cent of instances; about thirty per cent being positive in the kindergarten groups.[6]

These high prevalence rates are not observed among children of comparable age groups attending schools within a few miles of the city of Milan. The exact significance of this remains to be clarified.

material, as avian guano), humidity and temperature. The spores gain entrance into the human host usually by the respiratory tract, but may infect via the gastro-intestinal route or by direct invasion of open wounds. Within the animal host

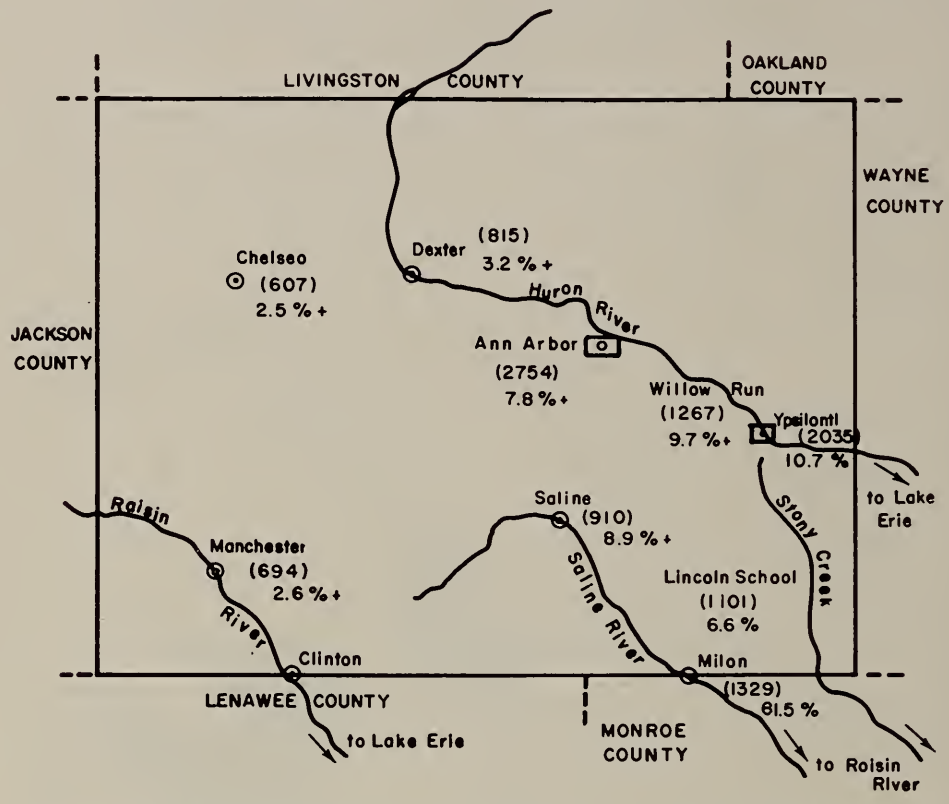


Fig. 3. Incidence of histoplasmin sensitivity among the school children of Washtenaw County, Michigan. (Data kindly furnished by Dr. Otto K. Engelke, Director, Washtenaw County Health Department).

TABLE I. TUBERCULIN AND HISTOPLASMIN SKIN TESTING
(University of Michigan Medical Center)

Adult Patients	Antigen		%	% Positive Histoplasmin
	Tuberculin*	Histoplasmin**		
General medical wards	+	−	25.0	
	+	+	8.0	22.0
	−	+	14.0	
	−	−	52.0	
Medical chest clinic	+	−	32.1	
	+	+	17.3	37.3
	−	+	20.0	
	−	−	30.4	

*Tuberculin (Old Tuberculin; 5 Tuberculin Units); Michigan Department of Health Laboratories.
**Histoplasmin (H-42; 1:100); Kindly supplied by the United States Public Health Service.

Pathogenesis

Histoplasma capsulatum, a member of the fungi imperfecti, is a biphasic organism. The mycelial phase, producing the infectious spores (chlamydospores), grows in nature under certain ideal conditions of soil type (often enriched by organic

the yeast phase of this organism is pathogenic, producing disease with a broad spectrum of symptomatology, clinical and pathological findings.

Dispersed by winds the diffuse fallout of spores may account for a significant number of relatively minor infections of histoplasmosis, but most clinically important infections appear related to the inhalation of a moderate to a large number of spores from "point sources." Ideal circumstances of temperature, humidity and soil for the rapid growth of the mycelial phase, with production of tremendous numbers of spores, exist during the summer months in "point sources," such as abandoned chicken coops, old farm buildings, silos, steeples, caves, *et cetera.* A number of such foci have been identified in Michigan (Fig. 4) with isolation of the fungus from the site in a few instances.

The extent of pulmonary disease and often the severity of symptoms appear directly related to the

proximity of the human host to such point sources, and thus to the number of spores inhaled. The acquisition of histoplasmosis is not by chance, in that the infected individual must, in general, visit a point source. The prevalence of infection, thus, is expected to be obviously greater in rural residents or those frequenting rural areas. Exceptions, as the city of Milan and several reports of urban foci[2,19] are of great interest.

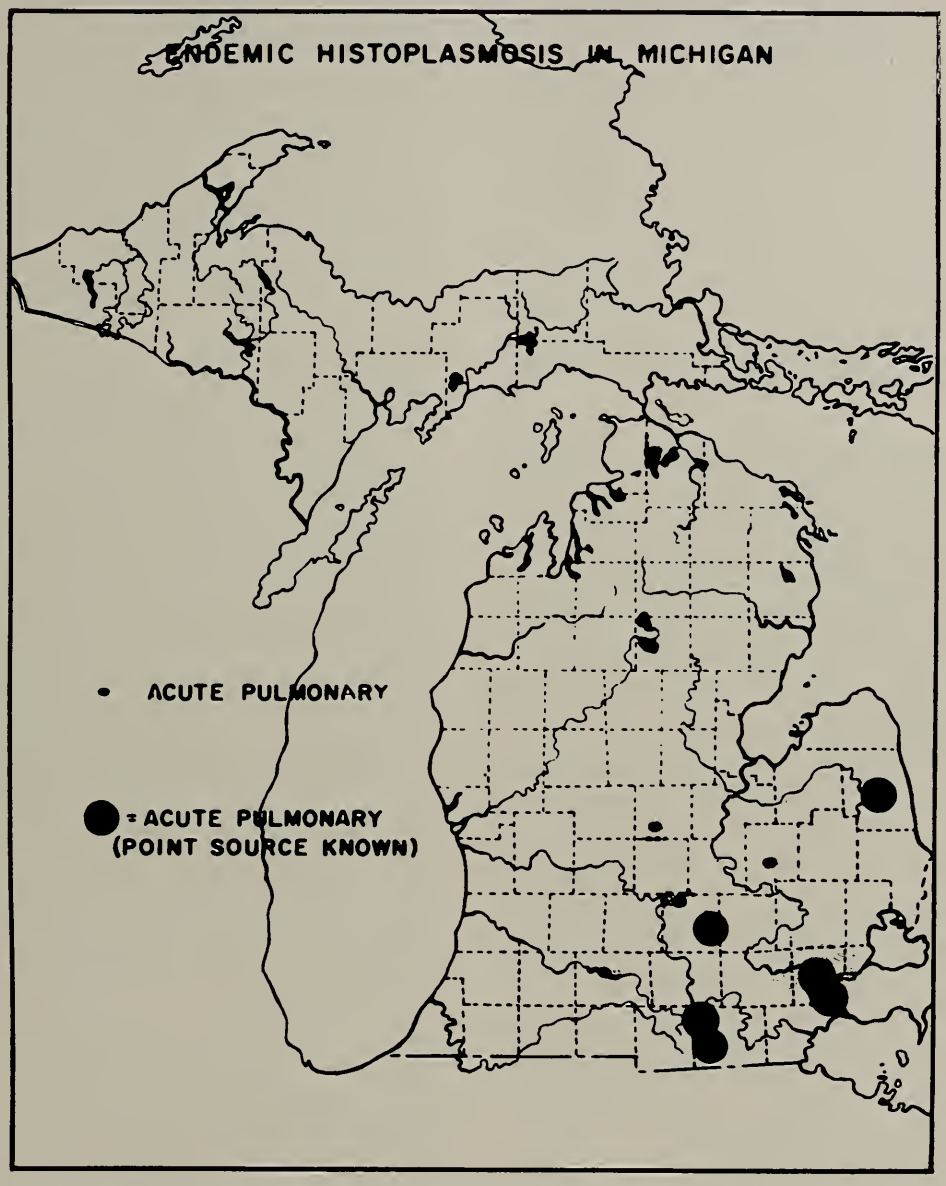


Fig. 4. Residence of patients with acute pulmonary histoplasmosis and indication of known "point sources."

Clinical Manifestations

The clinical course, results of laboratory studies and radiological findings in patients with pulmonary histoplasmosis can be compared favorably with tuberculosis, and this latter disease is most important in differential diagnosis.

No widely accepted classification of the spectrum of histoplasmosis has been made, but division into acute (epidemic) pulmonary, benign asymptomatic pulmonary, chronic (progressive) cavitary pulmonary and disseminated histoplasmosis, is feasible. As with tuberculosis, most any combination of symptoms, and clinical, laboratory and radiological findings may be observed. Histoplasmosis is definitely a more benign disease than tuberculosis, however, and few patients experience protracted illness, have extensive cavitary pulmonary

disease, or manifest dissemination of an acute and progressive type.

Differential diagnosis of the acute pulmonary infections may be difficult, and the residuals of many asymptomatic infections disclosed on x-ray examinations of the chest pose special problems in differentiation from tuberculosis, pulmonary neoplasm or other pulmonary manifestations of disease. The circumscribed nodular residual in lung is of great importance, especially when not containing demonstrable calcium, because of the inability to differentiate many of these from early pulmonary neoplasm.

TABLE II. HISTOPLASMOSIS DEATHS IN MICHIGAN* (1950—1957)

Year	Number	Male	Female
1950	2	1	1
1951	0	0	0
1952	1	1	0
1953	2	2	0
1954	1	1	0
1955	1	1	0
1956	0	0	0
1957	4	3	1
Total	11	9	2

*From: "Michigan Health Statistics," Division of Disease Control, Records and Statistics, Michigan Department of Health, Lansing, Michigan.

Subacute and chronic disseminations may lead to vague symptoms of general malaise and easy fatiguibility (the "all-overs") and not infrequently are associated with recurrent "fever of unexplained origin." Differential diagnosis from tuberculosis, lymphoma, and collagen disease is often most difficult, and these diseases may be complicated by coexisting histoplasmosis.

Acute progressive dissemination, though rare even in infants and the aged (Table II), simulates miliary tuberculosis and death may be characterized by adrenal cortical insufficiency.

Diagnosis

Most infections with *H. capsulatum* are without symptoms, or at most, result in nonspecific complaints of a "cold" or "influenza-like" illness. A valid history of such an illness may be difficult or impossible to obtain.

With infection there is resultant tissue hypersensitivity to histoplasmin (antigen from the mycelial phase). This can be elicited by skin testing, performed by the intradermal injection of 0.1 ml. of histoplasmin, with interpretation of the test at forty-eight hours, precisely as is done with a tuberculin test employing the Mantoux technique. Occult or asymptomatic infections can be detected by this method. Tuberculosis is a not infrequent concomitant of histoplasmosis, and if a patient is both histoplasmin and tuberculin positive, there is no way to determine which components of radiologically demonstrable disease are a result of each of these granulomas.

Acute pulmonary (epidemic) histoplasmosis often presents as an influenza-like illness with respiratory symptoms of cough and even sputum production. Fever is frequent, but the white blood cell count may be normal. Radiologically the pulmonary lesions often are bilateral, diffuse patchy infiltrates consistent with the findings in acute atypical virus pneumonia. The diagnosis of histoplasmosis should be suspected in such patients, particularly during the summer months. The histoplasmin skin test may be positive and the history of a visit, within the previous one to two weeks, to a possible point source of the fungus may be obtained on careful questioning. Proof of the disease can be made only by the recovery of *H. capsulatum* from the patient (sputum, blood, bone marrow aspirate, lymph nodes from scalene fat pad, *et cetera),* though serologic confirmation is possible by demonstration of elevated titres in the complement fixation studies on serum, especially on serial specimens. Recovery from this illness is usually spontaneous, and though the "characteristic" multiple bilateral calcifications may appear in areas of caseation necrosis over the next several years, many patients ultimately have entirely normal chest x-rays.

Benign pulmonary histoplasmosis has a multiplicity of radiological manifestations.[18] The usual is a localized area of parenchymal infiltrate, often associated with ipsilateral hilar or paratracheal lymphadenopathy. Such a minimal lesion or primary complex is indistinguishable from pulmonary tuberculosis, though one hardly expects frequent evidence of the hilar or paratracheal component of the primary complex in adults with first infection tuberculosis. Diagnosis rarely is confirmed mycologically, but serologic evidence of active histoplasmosis is frequent. The parenchymal lesions usually resorb slowly, and may later be observed to have deposits of calcium within them. The hilar or paratracheal nodes regress more slowly, in general, and numerous patients are observed with unilateral or bilateral hilar and/or paratracheal

lymphadenopathy as a result of histoplasmosis. Later the calcification within these nodes may be striking. When not calcified, these nodes pose problems in differentiation from lymphoma (though almost never is there encroachment of such enlarged nodes upon the anterior superior mediastinal space), and from sarcoidosis. Since erythema nodosum may accompany primary infections with histoplasmosis[5,15] and lymph nodes from the scalene fat pad may show "epithelioid tubercles" indistinguishable from those changes in sarcoidosis, this latter syndrome often cannot be excluded unless there is serological evidence of histoplasmosis. Even then, it is believed that sarcoidosis and histoplasmosis not infrequently are present concurrently.

Chronic cavitary histoplasmosis of the lungs is infrequent but is differentiated from advanced pulmonary tuberculosis with difficulty. In fact, some twenty per cent of the described cases of chronic cavitary disease resulting from histoplasmosis also have bacteriologically confirmed tuberculosis.[11] Recovery of *H. capsulatum* on culture of the sputum from these patients is frequent, however, and is correlated well with complement fixation studies on the serum. Whether cavitary disease results only from progression of an acute infection is not certain, but endogenous exacerbation would appear to be a satisfactory explanation for the pathogenesis of these lesions.

Subacute and chronic dissemination seems to be not infrequent, and almost every acute infection probably is associated with some extrapulmonary spread which establishes occult extrapulmonary foci, attested to by positive blood cultures in these patients and, later, multiple areas of calcification in the spleen. Confirmation of this remains difficult, but continuing nonspecific complaints, recurrent fever, or the presence of hepatosplenomegaly and fluctuating titres to the serologic studies, give highly suggestive evidence that histoplasmosis is present. Progression, unless corticoids are administered, seems infrequent but the duration of recurrent symptoms may extend from ten to twenty years. Many such patients have their illness labelled "psychosomatic," become discouraged and seek medical advice widely.

Acute progressive dissemination remains a serious manifestation of histoplasmosis, especially in infants and the aged, and particularly when the latter have other disease as carcinomatosis, diabetes mellitus, lymphoma or have received corticoids for a prolonged period of time. Miliary tuberculosis is the principal differential. The histoplasmin skin test may be negative and death from adrenal cortical insufficiency or hematologic disease from hypersplenism often ensues before a diagnosis is established.

Treatment

In light of the prevalence of this infection and the relative rarity of its serious manifestations, there seems no indication for specific therapy for most all patients with histoplasmosis. The acute infections, including acute "epidemic" pulmonary disease, subside spontaneously in the vast majority of instances, and mere symptomatic treatment and general bodily rest appear sufficient. When extensive pulmonary lesions are present it seems wise for the patient to remain off work for some three to six months, depending upon the rapidity of the clearing of the lesions, for occasional relapses and even acute dissemination may occur.

Recently, an antifungal agent, Amphotericin B®, has become available and has some effect upon clinical histoplasmosis. Its administration intravenously over a period of days to several weeks has resulted in obvious benefit to patients with acute and chronic disseminated disease, chronic cavitary pulmonary and acute pulmonary involvement. The gain to be made must be balanced against the potential and manifest toxicity of this agent upon the given patient.

The place of the surgical management of cavitary pulmonary histoplasmosis remains to be clarified. Pulmonary resection, perhaps with the protection from Amphotericin B therapy, may become a useful adjunct in treatment. Post-resection complications are not infrequent, however, and space-closing thoracoplasties may be indicated.

The surgical removal of a pulmonary "histoplasmoma" seems to be unnecessary, but when such a lesion does not contain demonstrable calcium, and in spite of a positive histoplasmin skin test and even elevated titres in the serologic tests, the differentiation from pulmonary neoplasm can be made only after surgical resection and examination of the specimen. The circumscribed nodular area of disease in the lung of a histoplasmin positive patient, in which calcium deposits in concentric rings can be demonstrated, almost certainly is a "histoplasmoma" and few, if any, of these need be resected.

Summary

Histoplasmosis is a common infectious disease in Michigan. Between twenty and thirty per cent of adults in the heavily populated areas have been infected. The usual course of the disease is benign, but the early manifestations and the residuals, especially in lung, constitute very important problems in medical practice. Its differentiation from acute virus pneumonia, tuberculosis and pulmonary neoplasm is most important. The broader use of histoplasmin skin testing and serologic studies in patients presenting various manifestations of pulmonary disease, puzzling problems in differential diagnosis of chronic unexplained illnesses, and fevers of unknown origin will lead to more and more frequent clinical diagnoses of this most interesting infection of protean manifestations.

References

1. Amolsch, A. L.: Histoplasmosis (Darling). A review with particular reference to its incidence in Michigan. Detroit Med. News, Education Issue, 32:45-47, (Feb.) 1941.
2. Aronson, D. L.; and Edwards, P. Q.: An urban focus of histoplasmin sensitivity. Am. Rev. Tuberc., 79:83-86, (Jan.) 1959.
3. Christie, A.; and Peterson, J. C.: Histoplasmin sensitivity. J. Pediat., 29:417-432, (Oct.) 1946.
4. Darling, S. T.: A protozoan general infection producing pseudotubercles in the lungs and focal necrosis in the liver, spleen and lymph nodes. J.A.M.A., 46:1283, (April) 1906.
5. Dickie, H. A.: Personal communication, 1958.
6. Engelke, O. K.: Personal communication, 1959.
7. Furcolow, M. L.: On the usefulness of the tuberculin skin test. Am. J. Pub. Health, 46:1064-1073, (Sept.) 1956.
8. Ireland, H. D.: Histoplasmin and old tuberculin reactors in Kent County, Michigan. J. Michigan Med. Soc., 50:619-620, (June) 1951.
9. Johnson, H. E.; and Batson, R.: Benign pulmonary histoplasmosis: A case report with a brief review of the literature. Dis. of Chest, 14:517-524, (July-Aug.) 1948.
10. Kelly, R. G.; and Woodruff, C. E.: Sensitivity to histoplasmin. Am. Rev. Tuberc., 61:269, (Feb.) 1950.
11. Lehan, P. H.; Brasher, C. A.; Larsh, H. W.; and Furcolow, M. L.: Evaluation of clinical aids to the diagnosis of chronic progressive cavitary histoplasmosis. Am. Rev. Tuberc., 75:938-948, (June) 1957.
12. Loosli, C. G.; Beadenkopf, W. G.; Rice, F. A.; and Savage, J. J.: Epidemiological aspects of histoplasmin, tuberculin and coccidioidin sensitivity. Amer. J. Hyg., 53:33-57, (Jan.) 1951.
13. Manos, N. E.; Ferebee, S. H.; and Kerschbaum, W. F.: Geographic variation in the prevalence of histoplasmin sensitivity. Dis. of Chest, 29:649-668, (June) 1956.
14. Parsons, R. J.; and Zarafonetis, C. J. D.: Histoplasmosis in man; report of seven cases and review of seventy-one cases. Arch. Int. Med., 75:1-23, (Jan.) 1945.
15. Saslaw, S.; and Beman, F. M.: Erythema nodosum as a manifestation of histoplasmosis. J.A.M.A., 170:1178-1179, (July) 1959.
16. Seabury, J. H.; and Drygas, H. H.: Penicillin in treatment of histoplasmosis. Ann. Int. Med., 25:340-346, (Aug.) 1946.
17. Smith, C. E.; Saito, M. T.; Beard, R. R.; Rosenberger, H. G.; and Whiting, E. G.: Histoplasmin sensitivity and coccidioidal infection. Am. J. Pub. Health, 39:722-736, (June) 1949.
18. Whitehouse, W. M.; Davey, W. N.; Engelke, O. K.; and Holt, J. F.: Roentgen findings in histoplasmin positive school children. J. Michigan Med. Soc., 59:1266-1269 (Aug.) 1959.
19. Wilcox, K. R.; Waisbren, B. A.; and Martin, J.: The Walworth, Wisconsin, epidemic of histoplasmosis. Ann. Int. Med., 49:388-418, (Aug.) 1958.
20. Ziegler, E. E.: Histoplasmosis of Darling: Review and case report with autopsy. Ann. Int. Med., 24: 1073-1087, (June) 1946.

TREATMENT OF PULMONARY TUBERCULOSIS WITH SEROMYCIN

(Continued from Page 1800)

24. Veterans Administration-Armed Forces study on the chemotherapy of tuberculosis. Quarterly Progress Report (April) 1958.
25. Rothstein, E.: Discussion: Trans. of 17th Conference on the Chemotherapy of Tuberculosis. Veterans Administration-Armed Forces, p. 38 (Feb.) 1958.
26. Worobec, T.: Discussion: Trans. of 17th Conference on the Chemotherapy of Tuberculosis. Veterans Administration-Armed Forces, p. 39 (Feb.) 1958.
27. Rothstein, E.: The seventeenth Veterans Administration-Armed Forces conference on the chemotherapy of tubercuolis. New England J. Med., 258: 1199 (June) 1958.
28. Pyle, M. M.; Pfuetze, H. K.; Barclay, W. R.; and Kasik, J. E.: Cycloserine in high dosage in "salvage cases" of pulmonary tuberculosis with control of toxicity by concomitant medication. Report at 18th Veterans Administration-Armed Forces Conference on the Chemotherapy of Tuberculosis, St. Louis, Missouri (Feb. 2-5) 1959.
29. Veterans Administration-Armed Forces study on chemotherapy of tuberculosis. Quarterly Progress Report (Oct.) 1956.
30. Epstein, I. G.; Nair, K. G. S.; Boyd, L. J.; and Auspitz, P.: Cycloserine-isoniazid combination therapy in virgin cases of pulmonary tuberculosis. Dis. Chest, 33:371 (April) 1958.
31. Kirshner, J. J.: Cycloserine with isonziad in chronic pulmonary tuberculosis. Antibiotics Annual, p. 627, 1957-1958.
32. Truant, J. P. Studies on the in vitro and in vivo effect of cycloserine and isoniazid on tubercule bacilli. Antibiotics Annual, p. 630, 1957-1958.
33. Storey, P. B.: The treatment of cavitary pulmonary tuberculosis with cycloserine-isoniazid compared with isoniazid-PAS (pilot studies XII and XIII). Trans. of 17th Conference on Chemotherapy of Tuberculosis. Veterans Administration, Armed Forces, p. 27 (Feb.) 1958.

Diagnostic Problems and Procedures in Pulmonary Disease

A. G. Nafrawi, M.D.,
and C. J. Stringer, M.D.

Lansing, Michigan

THE preoperative investigation of patients with surgical pulmonary disease often fails to establish a reliable diagnosis. After the diagnostic possibilities of x-ray, endoscopy, skin testing and bacterological and cytological examination have been exhausted, exploratory thoracotomy is necessary for accurate pathological diagnosis and treatment in about 30 per cent of patients.

It is not our purpose at this time to discuss the details of such diagnostic procedures, nor is it our purpose to analyze a series of cases. Our aim is to submit a few representative cases which we have encountered and to discuss the diagnostic procedures, all of which were inconclusive, and the final findings at thoracotomy.

Case 1.—P. T. M., an eighteen-year-old white man, an athlete, was admitted to Ingham Chest Hospital on December 28, 1958. His only complaint was hemoptysis for two to three months prior to admission. He had been examined and bronchoscoped at another hospital prior to transfer to the Chest Hospital. The bronchoscopist noted a bluish mass in the left upper lobe bronchus seen only with the aid of the right angle telescope. The mass did not appear to occlude the bronchus. One week after admission to the local hospital he had a rather severe hemoptysis, expectorating about ½ cup of blood. The blood was bright red in color.

X-ray examination revealed a homogenous density in the lower left lung field which appeared mainly to involve the lingula (Figs. 1 and 2, Case 1).

A Mantoux tuberculin test was negative. Physical examination revealed a well developed, well nourished normal appearing young man. The chest was clear to auscultation and percussion. B.P. 105/60 peripheral pulses were present and normal. R.B.C. 4,71.000. Hemoglobin 14.25 gm 95 per cent. W.B.C. 14.100 with a normal differential.

On December 29, 1958, he was re-bronchoscoped at the Chest Hospital. A pedunculated tumor was seen extruding from the orifice of the left upper lobe bronchus. The mass was friable and bled easily. It appeared to occlude the orifice entirely at times. A biopsy was taken from the mass.

The report on the biopsy was that this was a bronchial adenoma (carcinoma grade I). It consisted of epithelial cells uniform in type, cuboidal in shape, arranged in acini, but formed solid masses in some areas. The tumor showed engorged vascular spaces. There were small areas of necrosis and no mitotic figures were seen.

On the basis of these findings, surgery was performed on December 31, 1958. Upon opening the chest, the lower lobe and lower part of the upper lobe were densely adherent to the chest wall particularly along the mediastinum. These adhesions were freed and inspection of the lung showed numerous small tumors along the mediastinal surfaces of lower and upper lobes. These were fluctuent and extended along the lower lobe bronchus. The upper lobe bronchus was opened and the tumor mass could be seen to extend to the point of bifurcation of the left main stem bronchus. Therefore the only possible way to remove the tumor and the other surface tumors was a pneumonectomy. This was done.

The whole lung was submitted for pathological examination. The tumor was noted to be ulcerated and its tip projected from the upper lobe bronchus. It could be easily shelled out of the bronchus except at the pedicle just distal to the orifice over an area 0.5 cm diameter. The tumor branched and was a mould of the bronchial lumen. Its overall measurements were 2.5x2x1.5 cm. (Fig. 3, Case 1). Microscopically the tumor was described as a bronchial adenoma of carcinoid type. The cells have regular round nuclei and moderate amount of cytoplasm. They are arranged in compact masses and are separated by narrow fibrous tabeculae. The regional lymph nodes were not involved.

Such tumors are rather unusual and though considered by many to be benign yet they have been known to metastasize both locally and even to distal organs. Hence a preferable term is carcinoma grade I. Another feature of this tumor in our case was the large intraluminal component and obvious extension bronchoscopically over a period of two weeks. Recently such tumors were shown to be able to produce serotonin.

The patient made an uneventful recovery and was discharged nineteen days postoperatively in good condition.

Case 2.—G. O., a fifty-two-year-old man was referred to the Chest Hospital because of a productive cough with blood streaked sputum. In April of that year, he had a pneumonitis with pleural effusion and was hospitalized for thirteen days. On admission the right lung showed a circular density in the outer and lower field (Fig. 4, Case 2). The density was sharply demarcated and it was the impression that it represented either a loculated effusion or a tumor. On August 10, 1948, a thoracentesis failed to produce any further fluid.

On September 27, 1948, he was readmitted for an

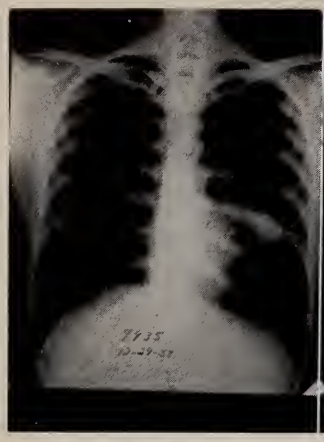


Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

exploratory thoracotomy to determine the nature of the previously noted density.

Examination revealed a 3 cm fungating mass over the left parietal region which the patient claimed had been present for many years, but had gradually increased in size. A similar tumor had been removed in 1917, and recurred soon after. The skull was not eroded and the tumor was not fixed to the bone. Also a 2 cm hard fixed nodule was palpable in the right thyroid lobe. There was a palpable axillary node. The prostate was moderately and uniformly enlarged, but no tumors were felt. No other abdominal masses were palpable. There was an appendectomy scar. Serum acid phosphatase was normal. In view of the above findings it was the opinion that the pulmonary lesion was probably metastatic. Resection was advised. A pneumonectomy and pleurectomy were performed on September 1, 1948. The pathology report on the specimen indicated the mass to be 10 cm in diameter with central degeneration. Microscopically the tumor was diagnosed as an adenocarcinoma of the lung. The opinion was that it was metastatic and its character suggested origin from the prostate a finding which is not borne out by the clinical picture or the normal S.A. phosphatase. A G.I. series showed normal gastrointestinal tract. The thyroid nodule was removed and reported as an adenoma. The scalp lesion was resected and reported as a squamous cell carcinoma.

This case is interesting in that not only was the lesion in the lung metastatic but also because there were two obvious possible sites from which the tumor could have originated. The first though somewhat uncommon for spreading to the lung is the squamous cell carcinoma of the scalp where an adenomatous element from the sebacious glands may result in the metastasis. These are usually locally invasive growths, slowly growing and distant metastasis are not common in the lungs. The thyroid nodule on the other hand is more likely to be the source of the metastatic lesion. Thyroid carcinoma show more predilection for metastases to the lung than do scalp tumors.

Eleven years after surgery, the patient is alive and operating his farm.

Case 3.—F. G., a thirty-nine-year-old woman was transferred from a general hospital with a diagnosis of left basal empyema. She gave a history of onset with pain in the chest prior to admission. She also complained of some dyspnea. Cholecystitis was suspected and gallbladder series and chest films were taken. A density in the left base was noted. Antibiotic therapy resulted in little improvement. The pain became aggravated and after about ten days pyelograms were obtained and were non-contributing. The density in the left base persisted. A left thoracentesis was done and a small amount of purulent fluid was obtained.

When admitted to the Chest Hospital, she felt some discomfort in chest and moderate pain. Her past history was non-contributing except for a pneumonitis in 1956. Physical examination showed an overweight female patient weighing 190½ pounds in no distress.

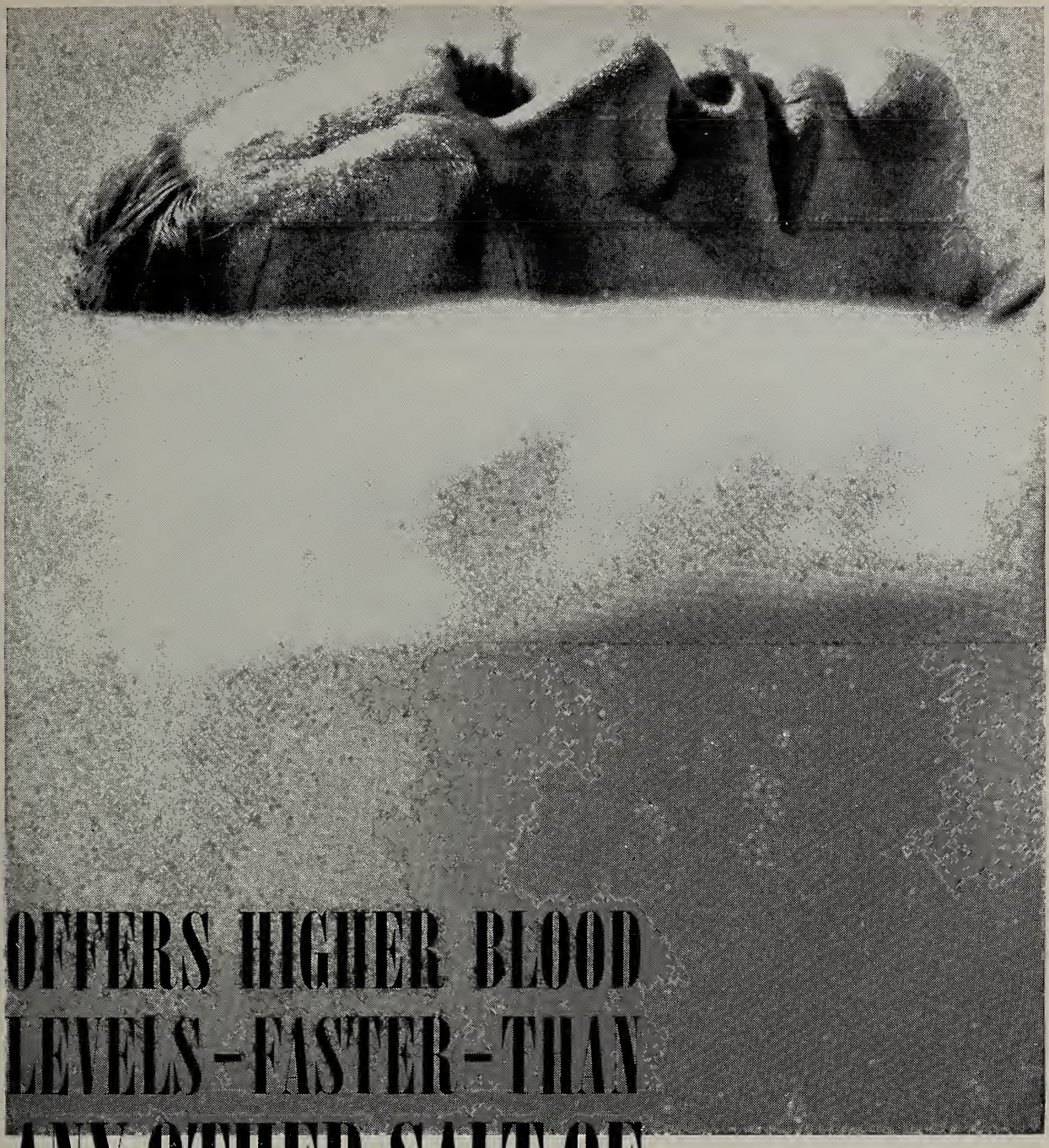
The chest moved freely. There were decreased breath sounds and decreased resonance over the left base. The patient complained of pain in the left chest on deep inspiration. Heart sounds were normal, rate was 98. B.P. 115/70. Abdominal examination revealed tenderness over the gallbladder area. No masses were palpable. She had a temperature of 100°F. Blood picture on April 4, 1959—R.B.C., 3,350,000 hgb. 9 gm, (62.7 per cent) W.B.C. 8,600, poly 69, lymph 19, eds 11. Urinalysis was normal. On April 19, 1959, she had a W.B.C. of 24,200. X-ray showed evidence of density in the left base. A bronchoscopy was done and showed a normal picture on the right. On the left side there was some mucoid material in the lower lobe bronchi but no evidence of growth. The bronchi were slightly congested.

Bronchographic examination revealed adequate filling of a normal bronchial tree on the right. On the left side there was an opacity extending to the third anterior space and the bronchi to the area were not adequately filled (Figs. 5, 6 and 7, Case 3). Thoracentesis revealed no evidence of pleural fluid at this time.

The pain was becoming more intense and there was no evidence of clearing of the density over a period of two weeks observation and antibiotic therapy. Since pulmonary malignancy could not be ruled out, an exploratory thoracotomy was performed on April 20, 1959.

On entering the chest cavity about 100 cc of relatively clear fluid was present. The left lower lobe was adherent to the diaphragm. The adhesions were freed

(Turn to Page 1829)



OFFERS HIGHER BLOOD LEVELS - FASTER - THAN ANY OTHER SALT OF ORAL PENICILLIN:

COMPOCILLIN®-VK

Potassium Penicillin V

® FILMTAB — FILM-SEALED TABLETS, ABBOTT. U.S. PAT. NO. 2881085

Supplied: Compocillin-VK Filmtabs, 125 mg. (200,000 units), bottles of 50 and 100; 250 mg. (400,000 units), bottles of 25 and 100. Compocillin-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. When reconstituted, each 5-cc. teaspoonful represents 125 mg. (200,000 units) of potassium penicillin V.

ABBOTT

in tiny, easy-to-swallow Filmtabs® in tasty, cherry-flavored Oral Solution

wherever there is inflammation, swelling, pain

VARIDASE®

Streptokinase-Streptodornase Lederle

BUCCAL Tablets

conditions for a fast & comfortable comeback

Host reaction to injury or local infection has a catabolic and an anabolic phase. The body responds with inflammation, swelling and pain. In time, the process is reversed. VARIDASE speeds up this normal process of recovery. By activating fibrinolytic factors VARIDASE shortens the *undesirable phase,* limits necrotic changes due to inflammatory infiltration, and initiates the constructive phase to speed total remission. Medication and body defenses can readily penetrate to the affected site; local tissue is prepared for faster regrowth of cells. In infection, the fibrin wall is breached while the infection-limiting effect is retained. In acute cases, response is often dramatic. In chronic cases, VARIDASE Buccal Tablets can stimulate a successful response to primary therapy previously considered inadequate or failing.

for routine use in injury and infection ...new simple buccal route

VARIDASE Buccal Tablets should be retained in the buccal pouch until dissolved. For maximum absorption, patient should delay swallowing saliva.
Dosage: One tablet four times daily usually for five days. When infection is present, VARIDASE Buccal Tablets should be given in conjunction with ACHROMYCIN® V Tetracycline with Citric Acid.
Each VARIDASE Buccal Tablet contains: 10,000 Units Streptokinase and 2,500 Units Streptodornase.
Supplied: boxes of 24 and 100 tablets.

1. Innerfield, I.: Clinical report cited with permission
2. Clinical report cited with permission

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

(Continued from Page 1824)

and the diaphragm was noted to be tented by the projection of a large tumor mass beneath it. The diaphragm was opened anterior to the location of the tumor and the abdominal contents palpated. The liver was free

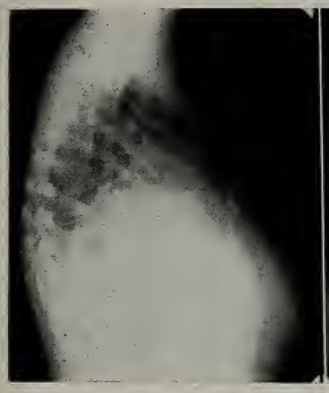


Fig. 5.

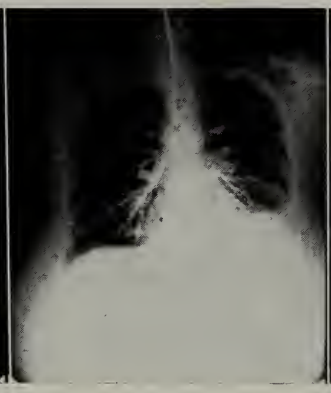


Fig. 6.

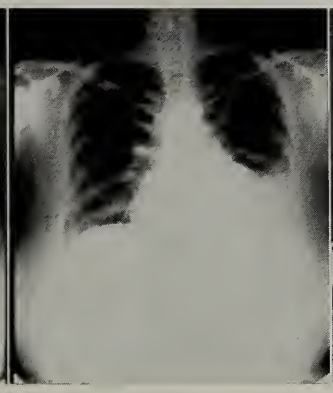


Fig. 7.

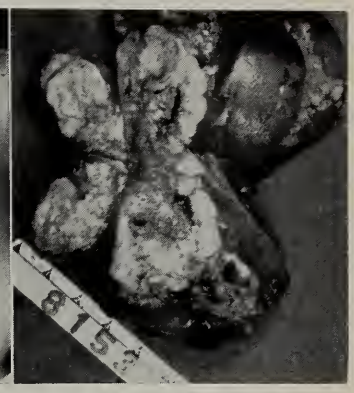


Fig. 8.

but the tumor was adherent to the stomach, intestines and lower ribs. It was dissected off these structures, and when this was accomplished the spleen was seen to be incorporated in the mass. The tumor was also freed from the left kidney. It was then evident that the tumor was of splenic origin and that in areas it had infiltrated the omentum. The tumor and spleen were resected and the omental areas involved were excised beyond a safe margin of 1 inch from the palpable edge of the tumor spread (Fig. 8, Case 3). Removal also entailed excision of a large area of the posterior-lateral diaphragm which was invaded by the growth and adherent to the superior pole of the spleen. However, it was possible after this to suture the diaphragm adequately. 0.2 mm of nitrogen mustard/kilogram of body weight was instilled beneath the diaphragm. The lung expanded adequately to fill the space and the wound was closed.

The patient made an uneventful recovery and was discharged twelve days post-operatively. The spleen measured 20 x 11 x 6 cm and showed a nodular mass 13 x 9 x 5 cm protruding from superior surface of its upper pole. The tumor mass within the spleen measured 9 x 7 x 11 cm and showed extensive areas of necrosis with softening. The margins of the tumor were well defined. Sections from the mass revealed an extremely pleomorphic neoplasm with sheets of cells which vary in size, shape, and staining reaction. The nuclei of many cells are large, vesicular with hyperchromia and in other parts are moderate, ovoid or round. The pathologist reported an unclassified type of splenic sarcoma.

In this case we were faced with a patient who had a rather severe left chest pain, from whom 100 cc of pleural fluid was aspirated and who continued to have a density in the left lung field.

The bronchoscopic examination was not diagnostic and the bronchogram suggested some involvement of the bronchi to the left lower lobe.

Splenic tumors usually present with abdominal symptoms and a splenic mass may be felt. Yet in this case the presenting symptoms were related to the chest and the issue was made more difficult by the presence of a pleural effusion with evidence of mucoid material in the left lower lobe bronchi and inadequate filling of these bronchi on bronchographic examination.

Therefore it may well pay to bear in mind that the spleen which lies under cover of the ninth, tenth, and eleventh left ribs may cause symptoms referable entirely to the chest and even lead to exploratory thoracotomy.

In cases of doubt as to the nature of the cause of such symptoms an exploratory thoracotomy offers the advantage that it affords adequate exploration of the contents of the chest and it may easily be extended by opening the diaphragm to allow an upper abdominal exploration as well as a resection.*

Case 4.—R. E. B., a sixty-six-year-old, well developed, well nourished, white housewife was transferred to the Chest Hospital on February 25, 1954. She considered herself in good health until June, 1953, when she noted a diffuse rash which began on the palms of her hands and spread to her neck, chest, abdomen and feet. Her local physician thought this was due to soap. She was hospitalized for five weeks in the summer of 1953. Soon after leaving the hospital she developed what was thought to be a virus pneumonia. She was again admitted for a period of two weeks for treatment. The chest did not clear and the cough persisted. She was transferred to the Chest Hospital for further pulmonary studies.

X-ray examinations showed that the right lung was clear. The left lung had a homogenous density extending from the hilum to the lateral chest wall at the level of the second, third, and fourth anterior intercostal spaces. There was also some cloudiness from this level to the base (Fig. 9, Case 4). It was thought that these findings were probably due to intrapulmonary malignancy and on this basis a thoracotomy was advised.

A left pneumonectomy was performed on March 4, 1954. Sections of the lung show markedly dilated bronchi which are filled with mucopurulent exudate. Many of the alveoli are also greatly dilated and contain mucus and leukocytes. In many areas throughout the lung the alveolar epithelium abruptly changes to atypical columnar epithelium. This has an adenomatoid papillary pattern. The basement membranes are well maintained.

---

*This patient died at another hospital on August 25, 1959, and no autopsy was obtained.

Large collections of mucus are seen (Figs. 10 and 11, Case 4).

The diagnosis was that of pulmonary adenomatosis or mucous epithelial hyperplasia. The gross picture is similar to that in Friedlander's pneumonia. The atypical changes in alveolar epithelium have caused speculation about the importance of such lesions in the genesis of pulmonary carcinoma. The disease is generally believed to be infectious and of virus origin with hyperplastic and metaplastic changes. However the collection of mucoid material is more common in non-malignant cases.

Convalescence following this procedure was uneventful.



Fig. 9.

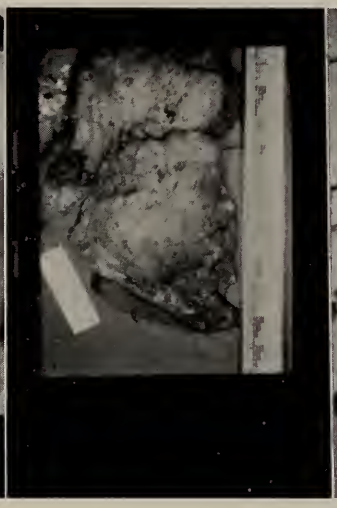


Fig. 10.

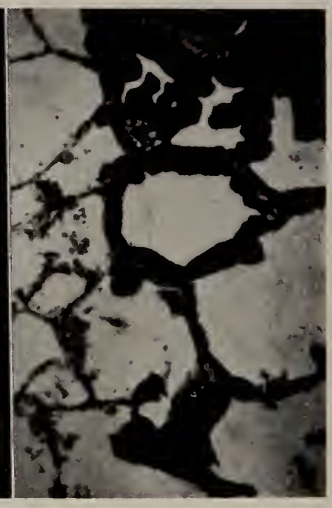


Fig. 11.

Case 5.—W. V. A., a fifty-six-year-old white man was admitted to the Ingham Chest Hospital as a case of unresolved pneumonia. He complained of gradual loss of energy during the winter with poor appetite and a weight loss of about ten pounds. He had pain in lower right chest on cough but not otherwise. He stated that he has had a productive cough all his life but the pain had only appeared three months prior to admission. Two weeks prior to admission he had to leave work after half the day and had felt so weak that he had not worked since.

Examination revealed a fairly well nourished patient slightly anemic. The only physical finding of significance was decreased breath sounds over the right lung field.

X-ray examination showed a homogenous density in the right lung extending from hilum laterally and located posteriorly possibly in the superior division of right lower lobe. There was evidence of areas of rarefaction in the above desnity (Figs. 12 and 13, Case 5). Blood picture—R.B.C. 4,180,000, hgb. 12.4 gm, 82.7 per cent W.B.C. 19,600 with normal differential. The impression at the time was that the condition probably represented an unresolved pneumonitis.

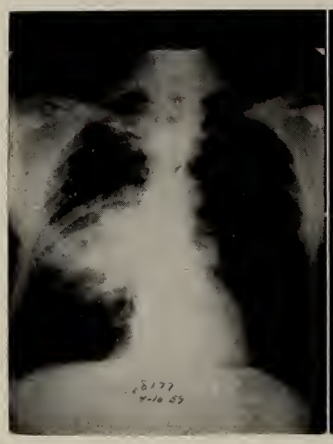


Fig. 12.



Fig. 13.

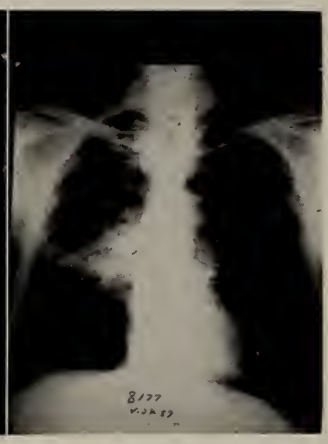


Fig. 14.

Bronchoscopy was done on April 13, 1959, and showed a congested tracheal wall, and a sharply demarcated carina. Mucuopurulent secretions were seen in the right main stem bronchus and originating from the superior division of the right lower lobe. The orifice of the subdivision was markedly inflamed and blocked by a thick bead of mucus which was washed out and aspirated. There was no evidence of growth or ulceration of the mucous membrane.



Fig. 15.



Fig. 16.

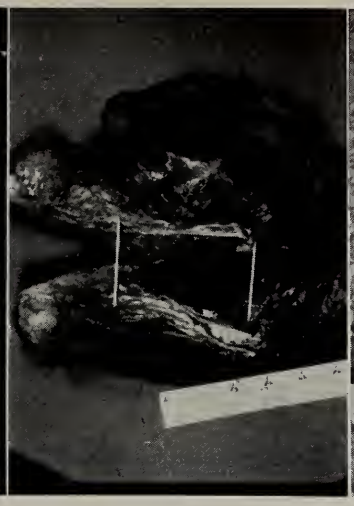


Fig. 17.

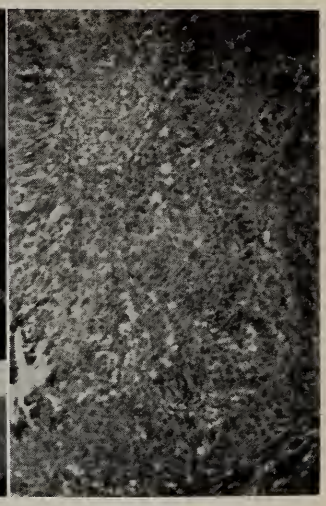


Fig. 18.

Following bronchoscopy the patient was put on broad-spectrum antibiotics and there was some clearing of the density in the right lung field until April 24, 1959 (Fig. 14, Case 5). His general condition improved slightly during that period. However owing to the fact that the area of infiltrate still existed the possibility of a malignancy though previously considered as unlikely, now became more prominent.

A scalene node biopsy was performed and showed only chronic lymphadenitis. There were no malignant cells noted in the bronchial washings which only showed an inflammatory exudate.

With these findings and with the little improvement in the patient's condition, and the persistance of the pain in the right side, an exploratory thoracotomy was advised. This was done on May 5, 1959.

On opening the chest cavity there were firm adhesions between the lung and chest wall at the level of the sixth intercostal space. The pleura over the superior segment of the right lower lobe was thickened. That segment was hard to palpation and this hardness was localized entirely to that segment. A wedge of the segment was submitted for frozen section examination and the report was an unresolved pneumonia. The remaining lung was normal. There were no enlarged mediastinal glands and it was therefore elected to proceed with a segmental resection.

The patient made an uneventful recovery except that he required a bronchoscopic aspiration one week post-operatively. He was discharged on the twenty-sixth postoperative day.

The resected segment revealed complete distortion of the architectural pattern of the lung by a chronic and subacute inflammatory picture. The alveoli were replaced by bundles of fibrous tissue, proliferating fibroblasts, young capillaries, lymphocytes, plasma cells and eosinophils. Clumps of large multinucleated cells were occasionally seen and appeared to be remnants of bronchial epithelium attempting to proliferate. Hemorrhagic areas were noted and scattered anthracotic pigment was seen in areas of unresolved pneumonia. The impression was that of an unresolved pneumonia.

However anaerobic culture of a pre-operatively obtained bronchial washing showed actinomycosis bovis.

Actinomycosis of the lung is not an uncommon condition. It is estimated that it represents 15 per cent of infections by actinomyces. The infection is more common in farmers and people in similar work.

This patient at the time he was seen was employed in maintenance work for a landscape architect. He gives a history of having worked as a farmer previous to that. His presenting symptoms were strongly suggestive of pneumonia, though malignancy could not be ruled out.

The bronchoscopic examination incriminated the superior segment of the right lower lobe. No evidence of actinomycosis could be seen on a scalene node biopsy nor on section of the segment after it was removed. The bacteriological culture decided the organisms in this case.

Now the patient is on penicillin therapy which is agreed to be the antibiotic of choice in such cases and may have to be given for periods of up to one year postoperatively.

Case 6.—R. D., a fifty-six-year-old man, was transferred to the hospital with a tentative diagnosis of bronchiectasis. On admission he was fairly well developed but appeared chronically ill. Four months prior to his admission his usual cigarette cough became worse. It became productive with fairly large amounts of yellow sputum. He noted a 10½ pound weight loss over a period of one year with failure of appetite three months prior to admission. He also complained of dyspnea on exertion. This improved with rest.

X-ray examination revealed increased bronchovascular markings in the right with areas of atelectasis (Figs. 15 and 16, Case 6). The left lung was clear. There appeared to be some clearing of the densities in the right base in films taken prior to admission.

Bronchoscopy revealed a fungating lesion in the right lower lobe bronchus which extended to the upper lobe orifice. The mass was malignant.

A pneumonectomy was done (Fig. 17, Case 6). The patient made an uneventful recovery.

The pathology report on the specimen indicated the tumor was a squamous cell carcinoma which showed

(Continued on Page 1854)

The Problem of Excess Tuberculosis Beds in Michigan

Paul T. Chapman, M.D.
Detroit, Michigan

THE INCIDENCE of tuberculosis has been on the down grade for more than a hundred years if the records of the Massachusetts State Health Department may be used as a criteria. Inasmuch as a considerable portion of these records preceded the discovery of the tubercle bacillus, some of the earlier statistics of necessity must be held in some doubt. However, there is probably no question that tuberculosis has been on a steady decline for more than a century in this country.

Although state laws require the reporting of tuberculosis, it must be admitted that newly reported case rates are not a true annual picture. Not all newly reported cases are promptly diagnosed either. Since 1952, the Public Health Service has defined for purposes of reporting active and probably active cases of tuberculosis. This has led to a relatively uniform reporting in the United States. The figures are complete through 1957, and indicate that from the period of 1952 through 1957, there was a 20.9 per cent decrease in newly reported cases, and an average annual rate of decrease of 4.2 per cent. The decrease in newly reported active or probably active cases has been even larger, there being a decrease of 22.3 per cent between 1952 and 1957, an average annual rate of 4.4 per cent. Prior to 1952, the reporting of active cases on the same basis was not available, but it is estimated that there has been a decrease in the active case rate of at least 28 to 30 per cent since 1950. As remarkable as this reduced incidence of tuberculosis is, it should be pointed out that the death rate has decreased even more rapidly being a decrease of more than 60 per cent.

There has been a slow decline of tuberculous infection in the population as shown by various tuberculin surveys. This slow decline should result in a lower incidence of disease. We might expect this decrease of incidence to continue unless some economic depression or some major catastrophe should result in a marked reduction of the resistance of people to the disease.

For the year 1957, Michigan reported a total of 5,011 new cases found of which 2,950 were active or probably active, or a rate of 38.3 per hundred thousand population. At the same time 448 deaths from tuberculosis were reported, 5.8 per hundred thousand being the rate. Similar states show the following: Ohio—a rate of 35.5 per hundred thousand with a death rate of 6.9 per hundred thousand; Illinois, another northern industrial mid central state, a rate of 52.8 per hundred thousand of new active and probably active cases and a tuberculosis death rate of 7.6 per hundred thousand. By contrast the more rural state of Indiana showed only 31.5 per hundred thousand active and probably active cases but a 6.9 death rate per hundred thousand. Wisconsin, on the other hand, showed only 23.0 per hundred thousand newly diagnosed active cases and a death rate of 3.6 per hundred thousand. It would appear from this that in large industrial states where non-white racial groups are heavily represented, the tuberculosis death rate will be high as well as the incidence rate. In this respect, Michigan, the second most rapidly growing state east of the Mississippi, heavily industrialized and with a large influx of non-whites, has done fairly well by comparison with other states of similar type in the area. In contrast to the United States as a whole, the Michigan rate of newly diagnosed cases is lower than the national rate which is 30.0. The death rate from tuberculosis is likewise lower being 5.8 in contrast to 7.8 for the continental United States.

From the foregoing, it appears that the incidence of tuberculosis has been decreasing in Michigan at least as fast as in the rest of the country. As the keystone in the arch of treatment the tuberculosis sanatorium has shown the effects of this progressive decline in tuberculosis incidence. It is not surprising that there has developed an excess of available tuberculosis beds in various parts of the state. The effect of this has been less noticeable in Detroit which is the area of highest incidence where the population has been growing the most rapidly, where the industrial density is the greatest, and

where the non-white population is the largest. Although the provision of tuberculosis hospitals had been fairly adequate compared with other large cities there were still not enough and, beginning in 1930, it seemed necessary to establish standby hospitals for the care of the tuberculous patient to provide early isolation and treatment. These standby hospitals reached their peak in 1933, when the number stood at twenty. Subsequently many of these institutions withdrew as the need for tuberculosis beds lessened and the waiting list shortened. The number of standby hospitals was further reduced during World War II but subsequent to this time an increased number of beds were required to meet the lengthening list in 1946 and 1947. This continued to be a problem until 1952, when there was a progressive improvement in the situation principally influenced by the effectiveness of chemotherapeutic drugs.

The State of Michigan provided money for an addition to Herman Kiefer Hospital of 253 beds which were made available in 1954, raising that institution's capacity to more than a thousand beds. More than 200 beds for tuberculosis were provided at this time at the Dearborn Veterans Administration Hospital. Similarly the new Veterans Administration Hospital at Ann Arbor provided forty-five beds for the care of tuberculosis when it was completed. The situation was further improved by development of a large out-patient chemotherapy program which has been continued from late 1951 to the present time and has permitted earlier discharge of patients from hospital.

Elsewhere in Michigan, the needs of hospitalization were gradually met by the development of county hospitals in the larger counties. More beds were added to the county tuberculosis hospitals through the assistance of the bond issue passed by the State of Michigan in 1951.

The same influences as were noted in the Detroit system began to be felt soon after 1953, in various county hospitals and coincided with the completion of new bed construction. By 1957, it became apparent that excess beds were available and these were put to other uses after permissive legislation was passed by the Michigan State Legislature in 1958. The Sunshine Sanatorium at Grand Rapids led the way in this effort and converted a portion of its institution to the care of chronically ill individuals. Soon thereafter the Saginaw County Tuberculosis Hospital branched out into other activities and thus utilized considerable of their surplus beds as well. The American Legion in Battle Creek, a non-county institution which has cared for tuberculous patients for many years, reduced its tuberculosis capacity to less than 50 per cent of the total and are now engaged in the care of the chronically ill.

The four state tuberculosis sanatoria reached their maximum size as the result of construction completed since 1950. This construction again coincided with the leveling off and gradual diminishing of the load of hospitalized patients. The sanatoria at Hancock, Gaylord and Kalamazoo never reached their projected capacities. Restricted by law to tuberculosis patients these institutions have only this year been permitted to make changes to permit other usage. Their attention has been directed toward the mental patient of the imbecile type whose problem is mainly one of nursing care. Patients have already begun to be admitted to Hancock and some changes have been planned for patients to be admitted to Northern Michigan Sanatorium at Gaylord. At the new Southwestern Michigan Tuberculosis Sanatorium surplus beds are already being filled by mental patients with tuberculosis and further provision is being made for the care of patients of the helpless imbecile variety. The Michigan State Tuberculosis Sanatorium at Howell has shown considerable reduction in its patient census during this year as the pressure from the Detroit area for admissions has lessened. Here, too, surplus beds have been set aside for the care of the helpless mental patients who have been referred for care from the congested state mental institutions.

While excess tuberculosis bed capacity has appeared in many institutions, in no instance, except for one small one in Gogebic County, have any discontinued operations. The retirement from this field by standby institutions in the Detroit area has been anticipated from the onset although admittedly long delayed. The last of the standby hospitals in Detroit was withdrawn from service in the spring of this year. The prospects that lie ahead would indicate that some consolidation will take place as time goes on. Whether the survivors are all county and local institutions, or whether the framework of state tuberculosis institutions persists is yet unknown. That some institutions smaller and less well located doubtless will be converted to other use and further mixing of services

as has been done in Grand Rapids and Saginaw may be anticipated. Probably some state services may need to be maintained regardless of capacity since large areas of the state will otherwise be without tuberculosis hospital care.

While the nature of tuberculosis has not changed, it must be admitted that with the present day chemotherapy, it is possible to much more rapidly convert the sputum of patients with active disease than was the case in the past. In the instance of the most favorable types of disease it is probable that many physicians are tempted and actually do begin treatment of such individuals at home. One of the reasons of course that tuberculosis needs to be treated in the sanatorium is that the vast majority of patients who have clinical tuberculosis are unable to afford private care and cannot provide suitable isolation in their homes while the treatment is being given. Most cases of tuberculosis cannot adequately be treated at home as the need for laboratory control, good clinical management, and the education of the patient about the disease cannot be provided outside the sanatorium. It is variously estimated that from 10 to 30 per cent of the patients could be treated safely at home. It is obvious that these are merely guesses.

Furthermore, it should be mentioned in passing that treatment of some patients with chemotherapy alone is insufficient to bring about control of the disease. Varying upon the type of patient being treated somewhere between 10 and 20 per cent need to have additional surgery added to their general plan of chemotherapy. This usually is provided after a few months of chemotherapy preparation during which time the evidence that it will not be sufficient becomes apparent and surgery is then applied. This is usually a resection of the diseased parts of the lung which is done under chemotherapy control. The subsequent care of such patients with fairly early discharge thereafter followed by prolonged chemotherapy in the clinic results in a very adequate result. As in the days before chemotherapy, the patient's treatment is not completed in the hospital but is continued in the clinic or by the private physician. By providing chemotherapy after discharge, hospitalization has been shortened and the possibility of relapse greatly reduced.

Hospitalization at the Herman Kiefer Hospital, Detroit, has been virtually cut in half since 1950, as a result of present day chemotherapy and its extension into the Out Patient Clinic. In the past one of the problems with which we have always been plagued has been the frequent reactivation of apparently controlled cases of tuberculosis. Recent experience has been most gratifying in this regard. For example, between December 1951, and March 1958, 4,681 patients were discharged from the various institutions into the Herman Kiefer Out Patient Clinic for further chemotherapy. This number of patients suffered 323 relapses and 130 of them subsequently died. Included were seventy deaths due to non tuberculous causes and among the relapses were a number in whom a question might be raised whether the relapses were due to tuberculosis. In any event, the total over-all rate is only 7.3 per cent. This is based on the removal of 288 cases whose whereabouts were unknown at the time of the report. This relapse rate is probably less than one-fifth the rate which would have been observed in patients treated without chemotherapy.

Discussion

The incidence of tuberculosis and the mortality from tuberculosis has been falling in Michigan, at least comparable to that of the United States. This has been accelerated since 1950, due to a number of factors. At the same time the beds provided for tuberculosis care have reached a satisfactory level and in fact, have become surplus in some areas. Construction of beds in various parts of the state in 1952 through 1954, coincided with effective therapy characterized by the use of isoniazid, streptomycin and PAS. These factors of lowering incidence, better provision of beds, and improved treatment, more than counteracted the expanding industrial population in this state with the result that excess beds for tuberculosis developed. Where the needs were the greatest in the metropolitan Detroit area this permitted the elimination of standby hospitals that had been used since 1930. Elsewhere in the state, county institutions developed surplus beds and have turned to the care of chronically ill patients following permissive legislation in 1958. On the basis of several experiences available these efforts have been fairly successful. In the main, however, the amount of care necessary has been greater than was anticipated since many of these chronically ill patients were in fact acutely ill and presented serious nursing problems. The

(Continued on Page 1923)

Traumatic Aneurysms of the Hand

Stuart W. Hamburger, M.D.
Detroit, Michigan

ANEURYSMS of the hand arising directly as the result of trauma are relatively uncommon. For this reason, it was believed worthwhile to present a case seen recently, and to emphasize a few pertinent facts about the lesion and its proper treatment.

A search of the literature discloses less than one hundred cases reported to date. Probably this does not reflect the true incidence, since no doubt others have been treated that have not been reported. Most of the cases are arterial in nature and very few arterio-venous aneurysms have been reported.

Traumatic arterial aneurysms of the hand are all false aneurysms, usually caused by weakening of the arterial wall by either a cutting wound from glass or a knife, or, less commonly, by a blunt force. With rupture of the arterial wall, a hematoma forms, varying in size, and limited by the surrounding structures. Because of the limitation in the hand, the occurrence of pulsation is delayed in comparison to aneurysms in other areas. The outer layer of the hematoma coagulates and is rapidly invaded by fibroblasts which surround the hematoma with a fibrous wall. Next, a cavity is formed in the center of the hematoma by the constant jet of arterial blood under pressure; this cavity is then lined by endothelium and pulsates synchronously with the heart beat. These pulsations are expansile in nature, their extent depending somewhat on the thickness of the layer of clot between the aneurysm center and wall.

Most frequently these aneurysms involve the superficial palmar arch, and there is usually a history of severe bleeding at the time of injury.

The diagnosis of false arterial aneurysm following trauma to the hand is not a difficult one if it is kept in mind. Naturally, the history of trauma must be obtained. Examination will disclose a localized swelling which on palpation exhibits expansile pulsation, and on ausculation reveals a systolic murmur. The murmur will disappear with the application of a tourniquet to the arm, as will pulsation; and the swelling will also decrease.

The treatment of this condition is excision of the sac with ligation of the vessels proximal and distal. Failure to effect a cure has been reported with simple ligation of the vessels entering and leaving the aneurysm rather than excision. It is unnecessary to delay for the formation of collateral circulation because, fortunately, the circulation of the hand is adequate. This can be tested by obliterating the aneurysm with pressure and observing the color of the fingers.



Fig. 1. Pre-operative view: Ink outline size of aneurysm. Note puncture wound in center.

The operation must be performed under tourniquet control, with an incision adequate to assure full visualization of all structures. In the hand, as nowhere else in the body, there are probably no structures that can be sacrificed without resulting in a defect in function.

Case Report

L. R., a thirty-two-year-old white man, was first seen October 12, 1957. The day before, while repairing a television set, he had suffered a rather deep, puncture-type laceration of the proximal portion of the palm of the left hand. Following the accident, there seemed to be a rather large amount of bleeding which the patient said was difficult to control. He was taken to a neighborhood doctor who sutured the wound.

Examination on October 12, 1957, disclosed a very swollen left hand with a one-half inch longitudinal laceration in the mid palm. The laceration had been closed by interrupted sutures of 0 black silk. Surrounding the laceration was an area of

erythema and the patient had a temperature of 101°. There was loss of sensation over the flexor aspect of the left ring and little fingers. The initial impressions were: infected laceration of the



Fig. 2. *(above)* Aneurysm partially removed. Connection to ulnar artery demonstrated. Note adequate exposure.

Fig. 3. *(below)* Aneurysm reflected radially. arrow points to defect in ulnar artery. (Hemostat is in it.)

left palm, with involvement of the digital nerves to the left ring and little fingers. The sutures in the skin were removed, and at this time it was apparent that there was some heavy catgut in place in depth of the wound. This was removed without any bleeding taking place. The patient was then placed on antibiotics and continuous compresses at home. Following this, he did rather well, but after healing by secondary intention, the return of function in this hand was noted to be rather slow. On October 18, 1957, the skin was healed, but the patient complained of a throbbing sensation in the area of wound and inability to flex his fingers. X-rays at this time showed no retained foreign body.

By October 25, 1957, he had approximately fifty per cent normal hand function and was making rather satisfactory improvement. November 25, 1957, approximately six weeks after the injury, the patient returned with a swelling in the middle of the proximal portion of the left palm, which measured approximately 3 cm. x 3 cm. with the healed laceration in the center of the swelling. Careful palpation disclosed a pulsation in the swelling which corresponded with the heart beat, and ausculation revealed a systolic murmur in the mass. The impression was that the patient had a false arterial aneurysm, probably involving the superficial palmar arch. (Fig. 1.)



Fig. 4. *(above)* Resected aneurysm.

Fig. 5. *(below)* Picture taken after closing showing direction of incision. Note "S" used to close the wrist.

The patient was admitted to the hospital, and taken to the operating room on December 12, 1957.

Using brachial plexus block anesthesia, the aneurysm was exposed through an incision paralleling the proximal flexion crease in the palm, down over the mid portion of the aneurysm into the wrist, and then extending along the distal flexion crease of the wrist to the radial aspect and back in an "S"-shape. The median nerve was then exposed in the wrist and followed out to the hand. The skin was dissected away from the mass and the

aneurysm exposed until it was easily demonstrated that it arose from the ulnar artery in the superficial palmar arch. The proximal and distal branches were located, (Figs. 2 and 3) and the aneurysm was then excised. The arterial branches entering and leaving were tied with 4-0 black silk sutures. The aneurysm was dissected off the superficial branches of the ulnar nerve to the ring and little fingers during the operation. The median nerve was seen, but the recurrent median nerve was not demonstrated during this procedure. The carpal ligament was repaired with No. 36 stainless steel wire. The skin was closed with interrupted sutures of 3-0 black silk, and a pressure dressing was applied (Figs. 4 and 5). Post-operatively, the patient did very nicely, and was discharged from the hospital on the third day. The sutures were removed on the thirteenth day, at which time the patient noted that sensation had returned in the ring finger, and the hand function was returning to normal. (Fig. 6.)

The patient was then seen December 26, at which time function was ninety-five per cent normal, and he was working full time in his usual occupation as a television repair man.



Fig. 6. One week post-operative: showing healing scar and good function.

Summary

The problem of traumatic arterial aneurysms of the hand has been discussed together with the method of treatment. One case was presented.

Bibliography

1. Bunnell, S.: Surgery of the hand. Ed. 3, pp. 1008-1009, Lippencott.
2. David, V. C.: Aneurysms of the hand. Ann. Surg., 33:267-275, August, 1936.
3. Gage, M.: Treatment of Peripheral Arterial Aneurysms, The Surgical Clinics of North America. 33:945-951, (Aug.) 1953.
4. Mason, M. L.: Tumors of the hand. Minnesota Med., 37:600-607, (Aug.) 1954.

DRUG ADDICTION

Drug addiction may no longer be as widespread as it once was, but its victims today are much younger than before. The current issue of *Patterns of Disease*, published by Parke, Davis & Company for the medical profession, traces the decline of drug addiction—from an all-time high of 195,000 in 1915, to 70,000 twenty years ago, to its present low level of 46,000. But where the addict of twenty years ago was bordering on middle age, he is today "probably a male in his middle 20's who has been addicted to heroin since he was about 20." Compared to this, "this typical patient at U. S. Public Health Service Hospitals twenty years ago was a male, 38 years old, who had become addicted to morphine at 27," *Patterns* states.

The "Tired" Patient

By Hugh O. Thompson, M.D.
Detroit, Michigan

In a general type of practice today we are constantly faced with the problem of the "tired" patient. This isn't a new problem, but it has many new facets occasioned by the *modus operandi* of the present social system peculiar to the United States. I think that most of us who deal daily with these "tired" patients, have come to realize more and more that restful sleep and its subsequent refreshed feeling and peace of mind, has two prerequisites: There must first be a bodily fatigue occasioned by adequate use of our muscles daily. Then this muscular fatigue must be accompanied by a mental fatigue, which is accomplished in many ways such as the job requiring concentration, reading, or the constant decisions on the part of the housewife in running a home. Without a combination of these two factors, sleep, if accomplished at all, does not produce the refreshed, rejuvenated feeling it should.

As a result of the imbalance between physical and mental fatigue, we have two general complaints: On the one hand, we have the patient who states that he or she is just as tired in the morning as before going to bed. On the other hand, we have the patient who is tired because of the inability to get to sleep.

Twenty years ago when I started practice at the tail-end of the depression, once or twice a week I would hear the complaint, "Doctor, I'm tired all the time." The history and physical examination of the patient were usually suggestive of the underlying pathology. This started a sequence of blood examination, urinalysis, x-rays, et cetera, and, as a rule, I was able to come up with a definite diagnosis of one of the debilitating diseases.

At that time there were very few women engaged in industry. Men, in general, were working forty-eight hours a week. Since there were more men than jobs available, men really worked all of the forty-eight hours. Holding their job was of paramount importance, so each saw to it that he produced as much per hour as his fellow workers. In addition there were many more tasks confronting the workingman at home twenty years ago. Since there was no television requiring both visual and audio attention, most of these tasks could be accomplished while listening to the radio. In such an atmosphere both prerequisites for refreshing sleep were fulfilled.

Women, at that time, were more concerned with trying the almost impossible task of keeping up with the housework. Washday, without our present automation, was an all-day really menial job. The drying and preparing of the laundry for ironing, extended well into the next day. All other household duties were equally more difficult and time-consuming than they are today. I think that another fact worthy of note is that at that time one could count on one hand the number of magazines in the drug store magazine rack, aimed at feminine interest. Women had neither the time nor the money to invest in the trivia to be found in today's magazine rack.

Those women who did work in industry or offices were faced with the same problems as the men. They found it necessary to work eight hours for eight hours' pay, and had certain household tasks to do in the evening. When and if they finished, both mental and physical fatigue were present, and sleep, which did not have to be induced, was very refreshing.

My practice was, twenty years ago and is today, composed primarily of people who are in the lower echelon or less skilled groups of workers. The transformation of the philosophy of this group concerning work has been tremendous, and reflects the thinking of both political and labor leaders. I will not go into the pros and cons of this change of philosophy since I am only interested here in the results of this transformation as it affects one small but important facet of the daily living of these people, and in turn has a marked impact on my daily care of them. Suffice it to say, that in essence this change has been one from "I'm entitled to as much as I earn," to "I'm entitled to as much as I can get for as little as I can get away with."

With this change effectively accomplished, let's

consider the "tired" patient of today. In my office I see from forty to sixty patients daily. Probably a conservative estimate would be that 50 per cent of the adults at some time during their office visit, make the remark that they are tired all the time. Perhaps I was more acutely aware of this change because my practice had been interrupted for four years during the war, so I was not present during the transition. On my return, I soon found that I was spending so much time on histories, physicals and work-ups on "tired" people, that I could not see enough patients to make a living. The really sad part of the whole thing was the frustration I began to feel at my inability to come up with the underlying cause in terms of pathology. My files soon bulged with normal laboratory and x-ray reports and the time had come to re-evaluate the meaning of persistent fatigue in the form which I was encountering.

In this re-evaluation it seemed that the fatigue had to be due to one of two causes: Disease on the one hand, and overwork or worry on the other. The physical examination, laboratory and x-ray departments had ruled out disease in nearly all cases, so it apparently was not a disease entity with which I was dealing. The only significant physical finding was that I was seeing more and more people with systolic pressures well below 100 mm. of mercury. This, however, was a finding in patients in general, and seemed to have no relation to the peculiar fatigue with which I was dealing. There were just as many patients with hypotension who claimed no feeling of tiredness as there were who felt tired.

The answer then must be overwork, worry, or both, since I found in reviewing the histories, that in more than 50 per cent of my families both the man and wife worked, it became necessary to separate the patients into the following categories: (1) Men, (2) Women who work and keep house, and (3) Women who keep house only.

In reviewing the work history of the men, each had been asked, "Is your work too hard for you?" Most frequently the answer to this question was, "I don't work three out of the eight hours." The next most frequent answer was, "My job is very easy." In some cases, the answer was that the work was very heavy or very hard. On inquiring further, I found that some of these men who claimed overwork were in the same job classification as the men who only worked three out of the eight hours or whose jobs were very easy. I had to conclude that any type of work would be difficult for these men. Eliminating these as overworked men, I was left with a group of men whose work was difficult or heavy and who warranted further investigation of their tiredness from the standpoint of overwork or actual disease.

Worry as a factor in producing this peculiar lassitude, presented a much more difficult problem to analyze. There are so many things people worry about—some personal, some real, some imagined. By far the largest group of these people are those with phobias occasioned by all the lay advertising to promote funds for the disease of the month. These people are difficult to deal with. Even after repeated Papanicolaou smears, electrocardiographic examinations and consultations with specialists, they can still find one or more of the eight or ten symptoms stated by the advertising as indications of cancer, heart disease, or others, and their cancerphobias, cardiophobias, et cetera, go on and on. In the occasional case when the phobia is sufficiently deep-seated to cause persistent loss of sleep, fatigue is produced. This fatigue, however, is easily recognized as something more real than that of the "tired" patient.

One would naturally think that economic worries would be of paramount importance to the man raising a family. Actually this worry is far down the list. These men feel that the Union guarantees their job no matter how poor their work, and the government guarantees almost as much pay and sometimes more if they are out of work. They all have cars, televisions and a multiplicity of automatic gadgets in their homes. It does not worry them in the least that the car they bought on a thirty-six-month plan will be worn out in twenty-four months and with depreciation and balance due they will have just enough equity to make the down payment on another one, so that they really never own a car. With car payments, house payments or rent, payments due on the constantly increasing number of mechanical work-savers, their pay is spent before it is received. Occasionally when I see one of these patients on Thursday and he says, "I'll pay you after I'm paid tomorrow," I ask if this does not worry him that with both he and his wife working, he is broke the day before pay day. They always say, "Oh, we will have enough to pay all of our bills tomorrow." When asked what would happen if his Union called a long strike or there might be a recession with no work, the standard answer is, "Well, then every-

body would be in the same boat." No, economics is not much of a source of worry to my people.

It was evident that in the vast majority of cases of "tired men," disease, work and worry were eliminated as the primary causes of their excessive tiredness.

The "tired woman" presents a slightly different problem. As already stated, they must be divided into women who work and keep house, and women who keep house only. There is, of course, a third group of women who work only, but these are for the most part the younger unmarried women whose extracurricular activities supply both physical and mental fatigue sufficient to assure restful sleep.

When a woman in the work-plus-housekeeping group complains of tiredness, it is usually fatigue from overwork. It is impossible for them to get more than four or five hours of sleep, which is insufficient rest for both mind and body. When this deficiency is compounded night after night it has a cumulative effect and true fatigue results. These women require further study to determine whether a disease process has developed, or if they simply need a leave of absence from work to recuperate.

Here again, however, it is necessary to inquire into the work classification of the woman. This was forcibly brought to mind not long ago when I entered the hospital elevator. There were two strange nurses already in the elevator and one was saying to the other, "this is the funniest place I have ever worked in. Between morning and afternoon coffee breaks, and lunch, there is no time to do any work." It would seem that too many of our non-production jobs follow a similar pattern.

The most difficult of the "tired" women to handle is the "tired" housewife. We seldom find the woman with more than two children in this category, because they have enough work, excitement, and so forth, to produce a natural healthy fatigue, and with most of the real drudgery of housework eliminated by work-savers and automation, these family women are, on the whole, a well adjusted lot.

The "tired" housewife who is really hard to convince that what she needs is to expend a little more energy, is the one with all the work-savers and automation and not more than one child to care for. She will glibly bandy the houswife's first line of defense—that "man works from sun to sun, but woman's work is never done." Ask this woman how much time she spends each day on the 'phone, watching programs on television, reading the sex, romance, movie and the rest of the ever-increasing number of worthless magazines in today's magazine racks, and the tirade starts. I have yet to find one of these women who will admit to excesses in any of these inactive pursuits. We know, however, that if the women's television programs are watched by too few, they soon lose their sponsors, and the corner druggist doesn't handle the magazines unless they sell.

By bedtime, these women are completely fatigued mentally, but their bodies are crying out for activity. When they sleep, they toss and turn all night, which is nature's way of attempting to obtain enough activity to keep the muscles and joints functional. As a result, sleep fails in its purpose of producing concommitant mental and physical relaxation.

If this woman is married to one of our "tired" men, there is real trouble brewing. She has been sensually aroused a great part of the day by the television and magazine heros and her man comes home too "tired" to go out and too "tired" to do anything at home.

These "tired" men and women have been too lightly treated by the technical and research-minded medical profession, but not so by the enterprising dispensers of pseudo-scientific patent medicines. A simple slogan like "tired blood" has made so much money selling one of these potions, that the company cannot give the money away fast enough in their television advertising. The sixty-four dollar question has become the $128,000 question. There are now dozens of sleep-producing, fatigue-allaying elixirs on the market.

Ethical pharmaceutical houses have also been quick to recognize the demand for sedation and tranquilizing agents thought to be required by this large "tired" segment of our population. In answer to my query concerning the yearly consumption of barbiturates and tranquilizing drugs, one of the largest drug manufacturers replied, "We are unable to furnish total industry data involving physical measurements of this sort, but perhaps you will find an estimate of annual prescription volume somewhat helpful. We are referring to new prescriptions (refills excluded) for specialty or trade-marked products in these respective fields. In other words, for example, prescriptions written by the generic term 'Phenobarbital' would not be included.

"On this basis, around 17,000,000 prescriptions are written annually for barbiturate specialty items, and approximately 18,000,000 for tranquilizer items. Of course in computing total patient consumption, you will have to know the amount of non-specialty products used along with the annual prescription refill rate and those quantities dispensed by physicians without prescriptions."

When you combine all this with the non-prescription items and attempt to arrive at a per-capita consumption figure, the imagination is at first staggered, then it becomes alarming.

It is time, then, that we as physicians give these "tired" patients a little more consideration instead of fluffing them off with a script for the latest sedative, tranquilizer or mood elevator. I find that a very simple and short routine categorizes these patients very well.

First, a short history to bring out any symptoms of actual debilitating disease. Second, ascertain the job classification. Third, inquire into the regular activities engaged in other than work. Fourth, any family troubles, financial or unusual worries. Fifth, in the case of working women, how many children, and how much of the housework does she actually do. Sixth, a routine checkup of the heart, blood pressure, urine and hemoglobin and an occasional chest x-ray.

In less than ten minutes the patient is classified as "tired" or booked for further workups. Actually these people are not tired at all, they are just bored.

The handling of the case after diagnosis varies with the individual. Some of these people become very belligerent when some form of exercise, preferably outdoor, is suggested. The usual response is "why man, you're crazy. I'm so tired now I hardly have enough energy to take my shoes off when I get home."

If the patient is at all co-operative, his interest is stimulated by telling him he has "Americanitis." After a brief explanation of the term, he may be convinced to try the treatment. The prescription must be very definite—a brisk walk from his home to a pre-determined point about a mile away, and return, every day regardless of weather, with no window-shopping or visiting along the way. This is usually all that is necessary and in one week the tired feeling is gone, sleep comes easily and is refreshing.

A case in point as to how well this really works was a patient who came to me recently. His story was the usual one of extreme "tiredness" so much so that he had to drink a glass of wine to get up enough energy to come to my office. He had been hospitalized twice in three months for work-ups at insurance carrier's expense, and each time he had been told to see a psychiatrist.

After running through my routine history and physical, I was aware that I was dealing with a man who for years was a three-out-of-eight-hours worker, who had no outside activities, and who, with his wife's income had no economic worries. This man seemed to me to personify the end-result of a system of which he was a victim. He had just enough energy to pull the cork and pour himself a glass of wine. Soon someone would have to pull the cork and pour for him.

I decided in his case to reverse my usual procedure and become belligerent myself. I told him he was becoming a worthless bum, and that I was going to give him some advice, and that if he did not take the advice, I did not want to see him again. On a prescription blank I simply wrote "Brisk walk to Boulevard dock every day." I handed him the prescription and told him that was all the medicine he needed. He left the office in a huff. One week later his wife called and thanked me. She stated her husband was out every day, was easier to live with, and was even talking of going back to work. Two weeks later he was in my office seeking advice on what he should do after returning to work to prevent a recurrence of the "tired" feeling. We talked over all the possibilities and he decided to continue his walks after work each day.

These people represent the transitional period in which we find ourselves. A time when labor leaders shout the age-old fear of automation decreasing the number of jobs, and politicians, through one means or another, are forced to go along to get the labor vote, and the confused worker sits idly by with the false notion that the world is his without the taking.

As physicians, we must be patient with the resultant "tired" worker. We must be sure that his fatigue is not the result of pathology, and guide him into a more satisfying and healthy way of life. To do so we must learn how best to counteract such thoughtless advice as is given each morning by one Union commentator, who signs off by saying, "Take it easy pals—but take it."

Megacolon

James P. Muldoon, M.D.,
and Lynn A. Ferguson, M.D.

Grand Rapids, Michigan

AT SOME point in each medical practice, the physician is confronted with the diagnosis of megacolon rendered him by the radiologist. Immediately the practitioner asks himself: what does this imply, what are the causes of such an entity and what is to be done for such a patient? It is the purpose of this article to define more clearly megacolon and its many ramifications and briefly outline acceptable management of such cases.

Megacolon can be defined as an abnormally large size of the colon due to dilatation and hypertrophy. It is more prevalent in childhood and pre-adolescent periods. It can be classified under two major groups: (1) *Functional* and (2) *Organic*—(a) true Hirschsprung's disease, and (b) obstructive lesions of anus or colon other than Hirschsprung's disease.

Functional Megacolon

In this category, the enlargement of the colon results from chronic or intermittent fecal impactions, causing degrees of large bowel obstruction with resulting elongation and hypertrophy of the bowel wall. Many children, as well as adults, with fissures or other inflammatory lesions of the anal canal, and because of the pain associated with defacation, resist the urge to stool. This sets the stage for chronic constipation with fecal impactions becoming commonplace. Faulty handling of bowel behavior during childhood with the overuse of catharsis by the parents is often the cause. It should be clearly understood that the megacolon is compensatory. Anatomically and histologically, the colon is without defect.

In this group, patients usually present themselves with the complaint of chronic constipation. In almost every instance the symptoms of constipation began some time after birth. A close look into the personality of this type of patient discloses a strong bowel fixation. Relatives, especially the parents, further emphasize to the doctor the difficulties the patient experienced in bowel behavior during the pre-adolescent, adolescent and adult periods. Most are cathartic addicts. They have used numerous and various laxatives in an effort to establish the eagerly-sought-after bowel regularity. Impactions are frequent and severe, necessitating at times general anesthesia for removal. In the long established cases, extra harsh bowel irritants are resorted to with little results and enemata become less and less effective. The gamut of non-constipating diets, along with popular food fads, are hopefully employed, resulting in many of these people becoming "diet cripples." They complain of headache, fatigue, or sense of fullness or bloating and feeling generally run down. Actually these people make a career out of having a bowel movement. Barium enema studies show greatly enlarged, redundant colons, especially in the sigmoid and descending limbs of the large bowel. Peristalsis may seem sluggish but it does expel the contrast medium well. There are no areas of constriction as seen in true Hirschsprung's disease. Diagnosis is confirmed by the presence of ganglion cells in a biopsy of the lower rectal wall.[3] In all cases of doubt this procedure shoud be employed.

Organic Megacolon

True Hirschsprung's Disease.—The pathology in this type of megacolon is due to the absence of parasympathetic ganglion cells in part or all of the large bowel or rectum. The lower portions of the sigmoid and the rectum are nearly always the segments involved. Actually, as far as a diagnosis is concerned, this may be considered extremely fortunate. Mass movement and contraction of this aganglionic segment does and can exist. Nevertheless, the movement is unorderly and propulsion of the fecal matter through this area is prohibited.[4] Obstruction results with dilation and enlargement of the colon proximal to the aganglionic area. Clinically, the digital and proctoscopic examinations disclose a normal, nondilated anus and rectum. There may be small particles of firm feces present. In contradistinction, the rectum of a person suffering from functional megacolon is dilated,

From the Active Staff, Ferguson-Droste-Ferguson Clinic, Grand Rapids, Michigan.

capacious and contains large amounts of impacted fecal matter. The history of constipation goes back to birth in all cases of true Hirschsprung's disease. In the well advanced cases of Hirschsprung's disease, dilation of the colon seldom goes to the anus, but rather terminates at the sigmoid or upper rectum with a normal appearing segment of bowel below it.[1]

X-ray is of definite help in the diagnosis of this disease. Typically there is a narrowed rectal segment with proximal dilation of colon. Proof that the disease exists can only be made by the absence of ganglion cells in biopsies taken of the muscular wall of the lower rectum.

Megacolon Due to Organic, Obstructing Lesions of the Anus and Colon.—By far the most common lesion producing this type of megacolon is stenosis or stricture of the anal canal. Stricture following surgical correction of an imperforate or ectopic anus, is the most common etiology of this kind of megacolon in the child. Many times the surgical procedure is complicated because of the lack of proper mechanical dilatation in the postoperative period. Certainly scarring and stenosis of the anal canal following hemorrhoidectomy or other anorectal operations contribute to great difficulty in bowel passage with various degrees of obstruction. Congenital malformations of the colon or rectum that decrease the luminal size of the bowel promote these changes in the colon. Tumors of all types, intrinsic and extrinsic, and inflammatory diseases of the anus, rectum or colon may be contributing factors.

Therapy

Functional Megacolon.—The anus should be thoroughly inspected and all disease should be corrected. Barium enema should be done for completion of the examination. This procedure also induces a sense of security in the patient's mind as thoroughness is reassuring. In cases where the diagnosis between functional megacolon and true Hirschsprung's disease is not clear-cut, a rectal biopsy should be done and a search for the presence or absence of ganglion cells made.

Treatment must be considered long-ranged, requiring a persistent patient and a persistent doctor. The doctor must spend time to gain insight into the personality and behavior pattern of the patient. It is important to impress the patient that his difficulty is not based on organic disease and in such a way dispel what bowel fixation is present. These people should be placed on a routine that promotes understanding of their condition, fortified with confidence within themselves.

The diet, although not strict, should be such as to increase bulk and ballast. This can be done by avoiding the common, constipating foods and increasing the intake of fresh fruits and vegetables. The water intake should be increased to six or seven glasses per day. A daily enema should be taken for the first two weeks. This removes all impactions present and allows the bowel to regain normal size with enhancement of its contractile ability. Hydrophilous agents can also be employed during this period in order to increase bulk and soften the fecal mass. During the first part of the training period, Mecholyl Bromide, 100 mg. per day for children and 200 mg. per day for adults, may be used in the very refractory cases.[2]

True Hirschsprung's Disease.—Therapy in this instance is operative in nature and directed toward surgical removal of the aganglionic segment of bowel. Sympathectomy or removal of the large, dilated segments of bowel, as proposed in the past, are not considered effective and should not be done. Swenson's operation, as outlined for this anomaly, is entirely satisfactory and is the treatment of choice. This procedure can be completed in one stage and, if dissection is carried out close to the bowel, leaves the patient with satisfactory anal sphincter and urinary bladder control with no sexual dysfunction in later life. In cases where a proximal colostomy has been performed at a time prior to corrective operation it may become extremely difficult for the surgeon to identify the diseased segment. In all cases the presence of ganglion cells in the proximal bowel end must be proven microscopically before anastomosis is done.

A word of warning should be injected at this point concerning enemas given people with megacolon. There are many reports in the literature concerning fatalities resulting from the giving of enemas. It is felt that the large, absorbitive surface of the much dilated colon transmits large quantities of water to the vascular space, which may in turn lower the electrolytes, especially sodium, to a critical level. It has been postulated that the enemas given should be an isotonic saline solution. Needless to say, enemas should be given cautiously to patients with heart disease.

(Continued on Page 1847)

Intestinal Obstruction After Colon Surgery

By Meyer O. Cantor, M.D., F.A.C.S.
Detroit, Michigan

SURGERY of the colon has become common in the last ten years. This has resulted in a sharp increase in intestinal obstruction from this source. An incidence of from 3 to 10 per cent has been estimated to occur specifically as a result of such colonic surgery. From this, the importance of this subject is apparent.

Many and varied types of bowel obstruction may follow colon surgery, in addition to the non-specific small bowel obstruction which may occur as a result of any abdominal procedure. Colon surgery, when associated with colostomy, carries with it an incidence of almost 25 per cent of complications and more than one complication may occur. Again, the increasing numbers of colostomies being performed is reflected in an increasing number of small bowel obstructions.

The more common mechanisms causing small bowel obstruction after surgery of the colon are: (1) the new floor in the peritoneal cavity with extensive suturing, (2) the gutter lateral to the colostomy on the left, (3) the gutter beneath the transverse limb if the colostomy is brought out in the midline, (5) the abdominal incision, in itself, and finally, (6) the trauma of surgery may predispose to the development of obstruction. In addition to these, one may find small bowel obstruction as a result of leakage at the suture line.

Types of Obstruction

The types of obstruction following colon surgery may be divided into large groups. These are:

1. *Not Specifically Related to Nature of Surgical Procedure.*—These obstructions are due to adhesions between loops of small bowel or the anterior abdominal wall. All such obstructions are non-specific to the colon surgery *per se.* Obstructions of this type may follow any abdominal surgical procedure.

2. *Arising in Connection with Pelvic Floor.*—Adhesions between the small bowel and the pelvic peritoneal floor may be a source of intestinal obstruction. Such adhesions to the pelvic peritoneal floor may be the result of long "tails" of suture used. A rent may be left in the pelvic floor which permits bowel to slip through and become obstructed. Obstruction produced in this fashion may be of Richter's type in which a small portion of the anti-mesenteric surface of the small bowel may become strangulated. Obstructions of this type are often difficult to diagnose because the continuity of the small bowel is not interrupted. One of the first indications of its presence may be the development of a perforation and pelvic abscess.

The extensive suturing of the pelvic floor and the presence of loops of terminal ileum lying upon it presents favorable conditions for adhesion formation and the possible development of small bowel obstruction.

Obstruction of the terminal ileum may occur. In this, angulation and obstruction of the terminal ileum is produced by tight pull on a flap of pelvic peritoneal floor to which the terminal ileum may be attached. Stretch on this flap may cause a kinking and obstruction of the terminal ileum. To prevent this, the terminal ileum must be freed from its point of attachment before the pelvic peritoneal floor is repaired.

3. *Originating in Vicinity of Colostomy.*—Obstruction of the small bowel may occur by adherence to the peritoneal aspect of the colostomy wound or to the edge of the mesocolon. This is responsible for a small percentage of such small bowel obstructions.

Intestinal obstruction may occur by herniation of a loop of small bowel through the colostomy wound. It may then become strangulated there. This is by no means rare. The small bowel may emerge through the opening in the abdominal wall through which the colostomy passes. The small bowel may pass between the lateral abdominal wall and the colostomy spur undergoing volvulus. On the other hand, the small bowel may become obstructed by angulation of the limb which passes

From the Grace and Sinai Hospitals, Detroit, Michigan.

between the colostomy spur and the lateral abdominal wall.

If the colostomy opening is made in the midline, the small bowel may herniate beneath the transverse portion of the colon passing from left to right to reach the midline. In addition, a loop of small bowel may become adherent to the colon at the point at which it emerges through the peritoneum.

A rather rare type of small bowel obstruction may occur in which the bowel herniates between the peritoneal leaves of the iliac mesocolon.

4. *Originating in Vicinity of Colonic Anastomosis.*—Obstruction of the colon may occur at the site of anastomosis. If the colonic edges are turned in and too large a cuff is made, obstruction of the colon may occur. Infection in the suture line may produce a sufficient degree of stomal edema to effectively obstruct the bowel. This type of colonic obstruction subsides with subsidence of the edema. Infection around the suture line, of the anastomosis, or leakage at the suture line results in local peritonitis. As a result, ileus sets in. Leakage at the suture line may become walled off and form an abscess. This may cause intestinal obstruction of several types: (1) paralytic ileus usually develops, (2) an abscess may result in adherence of a loop of small bowel to it with resultant angulation and mechanical small bowel obstruction, (3) the edematous changes in the small bowel wall may cause obstruction, and (4) the abscess may reach a size so large as to compress the colon or mechanically obstruct the small bowel by compression.

Drainage of an abscess due to a leak at the suture line may result in the formation of a fistula. This may be responsible for the development of mechanical intestinal obstruction by a loop of small bowel becoming adherent to it or being involved in the inflammatory process which results from the fistulous tract. All these acute inflammatory types of mechanical small bowel obstruction are best treated conservatively by means of intestinal decompression tube. Some may require surgery if the obstruction does not relent upon the subsidence of the inflammatory process.

5. *Obstructions of the Colostomy.*—Stricture or stenosis about the emerging loop of colostomy is the most common complication. The narrowing in most cases occurs at the skin level and may be noted several weeks postoperatively. This is more likely to occur in a single loop than in a double loop colostomy although it may occasionally occur with a double loop colostomy. Many surgeons believe that the stab wound alone is a responsible factor in this type of obstruction because of an inadequate opening through the abdominal wall fascial layer. It may be difficult to decide at the time of surgery between an opening in the abdominal wall that may be snug and one that is too large permitting herniation of bowel. In many cases, the development of a wound infection predisposes to stenosis as a result of the fibrosis associated with healing. This may obstruct the colostomy. Ideally, the colostomy should be flush with the skin and readily admit the index finger. In addition, a circle of skin and fascia should be excised as a channel for the emerging colostomy loop. This prevents too tight closure of the deeper layers of the abdominal wall. As an additional safeguard, the colostomy loop should be brought out straight through the abdominal wall and brought out loosely to avoid tension on the loop. Necrosis of the colostomy loop may occur in those cases in which there is impairment of the blood supply due to undue tension on the mesentery or by compression from the abdominal wall. In these cases, the mesocolonic vessels may become compressed and thrombosed. Such necrosis may occur as a result of tension, tight closure, or improper division of the mesocolonic vessels.

As a result of the present widespread use of steroids, a rather unusual complication of colostomy may occur. This consists in the exteriorized loop of bowel falling back into the peritoneal cavity because of failure of tissue reaction to fix it. A similar accident may occur as a result of undue tension of the colostomy loop with inadequate mobilization. In some instances, the bowel may simply retract into the abdominal wall. In such cases, extensive wound infection occurs whereas peritonitis with resultant paralytic ileus results if the loop falls back into the peritoneal cavity. Immediate surgical removal of the retracted loop usually results in a successful outcome unless the accident is not recognized early enough to avoid widespread peritoneal contamination. In this latter event, death may occur.

One of the most common complications associated with colostomy is prolapse of the colonic mucosa. This is usually not associated with mechanical intestinal obstruction. A large segment of mucosa may protrude, however, resulting in severe edematous changes and obstruction. Gen-

erally, this complication is troublesome to the patient but is not of serious consequences. Revision of the colostomy may be required however.

6. *Following Abdomino-Perineal Resection.*—Generally, abdomino-perineal resection carries approximately three times the incidence of small bowel obstruction as compared with anterior resection. This is less the result of handling of the bowel than of the artificially created conditions associated with the operative procedure itself. Since handling of the small bowel in the course of anterior resection differs little from that in abdomino-perineal resection, other factors must be responsible. The three sources of small bowel obstruction to account for the differences are: (1) the cut edge of the mesocolon, (2) the suture line of the pelvic floor, and (3) the aperture between the left pericolic gutter and the terminal colon as it ascends through the abdominal wall.

7. *Ileostomy Syndrome.*—In addition to acute intestinal obstruction produced by colon surgery, the "ileostomy syndrome" has been considered as being due to a partial obstruction of the ileum. This is prone to occur after total colectomy with ileostomy. Although the cause of this syndrome is still speculative, the consensus appears to suggest that it is a potential complication inherent in the establishment of any ileostomy and may be due to an interference with the neuromuscular co-ordination of the bowel as it passes through the abdominal wall. This results in a functional type of intestinal obstruction. Turnbull[2] has suggested that the ileostomy dysfunction producing this type of obstruction may be due to edema of the presenting limb. This is suggested by the prompt improvement that often occurs when a catheter is inserted into the ileostomy and suction applied. It seems that the small bowel is not tolerant to exteriorization over long periods of time unless the serosa is covered in some fashion. This may require skin graft or suture of the mucosa to the skin edge thus protecting the serosal surface and thus maturating the ileostomy.

8. *Rare Obstructions After Colon Surgery.*—An unusual and rather rare type of small bowel obstruction was that reported by Mackenzie.[1] This patient had a perineal excision of the rectum. At operation for acute intestinal obstruction nine years later, it was found that the colon distal to the colostomy, which had been made, was gangrenous. The gangrenous bowel proved to be the blind efferent loop of large bowel leading from the colostomy. Apparently this bowel had been permitted to hang freely in the peritoneal cavity as a pendulous sac. At operation for obstruction, the blind end of colon was resected leaving a 1.5 inch stump at the colostomy. Recovery was uneventful.

Obstruction of resected colon has been found rarely as a result of an air-filled balloon of an intestinal decompression tube which has been lost. This cannot occur if such tubes are properly used. When this accident does occur, however, the management depends upon whether the obstruction is complete or incomplete. If incomplete, a waiting policy should be adopted with the patient breathing pure oxygen at frequent intervals. By so doing, the intestinal gas within the balloon often diffuses out. If the air-filled balloon comes to lie near the colostomy stoma, it may be fished out with a long hemostat. An occasional case may require reoperation. At this time the balloon may simply be broken by compression between the palms of the surgeon's hands and the empty balloon permitted to be excreted. Colotomy is not indicated.

Diagnosis

A diagnosis of small bowel obstruction may be very difficult to make in association with or following surgery of the colon. This is especially true of those cases in which the obstructing process develops within the first four or five days after surgery. At this time, symptoms complained of may be ascribed to "gas pains" or the ileus which follows any cutting operation upon the bowel. From the point of view of diagnosis, obstructions after colon surgery fall into three groups: (1) cases in which an exact diagnosis can be made clinically and radiologically, (2) cases in which the diagnosis may be considered as probable but not certain, and (3) cases in which the diagnosis not only cannot be made but is not even suspected. This last group fortunately constitutes a small percentage of cases but accounts for most of the deaths. Even in this last group, however, a careful review of the problem from time to time throughout the first forty-eight hours from onset of symptoms often permits a correct diagnosis. Even when an exact diagnosis is not certain, the indications may be sufficient to justify surgical exploration.

In reviewing small bowel obstruction after colon surgery, the obstruction was found to occur in most cases between the sixth to the eighth day. This

appeared to be the most critical time. The understanding reluctance of the surgeon to believe that his patient has developed small bowel obstruction within the first week of surgery is responsible for much delay in making a correct diagnosis. However, in those cases in which a diagnosis is made and when prompt surgical intervention is instituted recovery is usually prompt.

The management of obstruction following major colon surgery must in no wise differ from the treatment of intestinal obstruction as a primary disease. The only possible exception to this being those cases of obstruction caused by a plastic exudate. In cases of this type, the management should be the same as for small bowel obstructions in the inflammatory distention group in which peritoneal exudate or pelvic abscess is the causative agent. In such instances, intubation by a long tube, intestinal decompression, the liberal use of antibiotics and adequate hydration with correction of electrolyte or protein deficiencies may satisfactorily carry the patient over the period of obstruction caused by the inflammatory process. As a result, many of these cases will not require surgical intervention.

Constant vigilance must be exercised when this course of action is decided upon because such obstructing processes may require surgical intervention at any time during the course of the conservative management.

In many cases, exploratory operation may be indicated even when a suspicion of intestinal obstruction is present and when intestinal intubation does not result in a prompt relief of all symptoms within the first twenty-four to thirty-six hours.

Partial wound dehiscence is a common cause of small bowel obstruction. In many cases, the wound separation involves only the deeper layers and the sutured skin remains intact. A sero-sanguinous drainage from the incision should be presumptive evidence that such a separation has occurred. It is not infrequent that a loop of small bowel becomes herniated through an opening in the peritoneum and becomes obstructed. The prevention of this source of obstruction requires that all suspected wound dehiscence cases have the wound re-opened and examined for herniated bowel. If found, a secondary closure of the incision should be performed. This cause of small bowel obstruction is little mentioned but it is nonetheless an important one. Many surgeons, who would adequately and promptly deal with a complete wound dehiscence, fail to recognize the fact that moderate degrees of wound separation are far more dangerous because they are often not recognized. It is the hidden wound separation that causes most of the small bowel obstructions that result fatally.

In the final analysis, the surgeon must be eternally vigilant following colon surgery and must constantly be on the look-out for signs of small bowel obstruction. He must be prepared to deal with this complication promptly in accordance with the dictates of good surgical judgment and common sense.

References

1. Mackenzie, K. G. F.: An unusual case of large bowel obstruction. Brit. M. J., 1:933, 1948.
2. Turnbull, R. B.: Management of the ileostomy. Am. J. Surg., 86:617, 1953.

666 Maccabees Building
Detroit 2, Michigan

MEGACOLON

(Continued from Page 1843)

Obstructive Megacolon other than Hirschsprung's Disease.—In these cases, the therapy is operative and should be directed toward the correction of the obstruction present. Anal stenosis, no matter what the cause, must be alleviated. Obstructive tumor, intrinsic or extrinsic, and narrowed inflammatory stricture of the bowel after proper preparation should be resected, employing the essentials of good surgical technique.

Summary

1. Megacolon is briefly defined and classified.

2. Biopsy of the wall of the lower rectum is stressed as a means of differentiating between *true Hirschsprung's disease* and *functional megacolon.*

3. Conservative and surgical management of the different types of megacolon is discussed and briefly outlined.

References

1. Hiatt, R. B.: The pathologic physiology of congenital megacolon. Ann. Surg., 133:321-329. 1951.
2. Lee, C. M., and Bebb, K. C.: The pathogenesis and clinical management of megacolon with emphasis on the fallacy of the term "idiopathic." Surgery, 30: 1026-1047 (Dec.) 1951.
3. Swenson, O.: Rectal biopsy as an aid in the diagnosis of Hirschsprung's disease. New England J. Med., 253:632-635 (Oct.) 1955.
4. Whitehouse, F. R., and Kernohan, J. W.: Myenteric plexus in congenital megacolon. Arch. Int. Med., 82:75-111, 1948.

President's Page



Milton A. Darling

President
Michigan State Medical Society

A new year in the history of the Michigan State Medical Society has begun, and we are entering it with a firm resolve to serve the Society to the very best of our ability.

However, it is far more than a one-man job. Even the unfailing devotion of your Council, your Committee Chairmen and members will succeed only as you cooperate.

November is perhaps the most beautiful month of the year. Nature has fulfilled its annual obligations and the harvest has been gathered. Let us also count the accomplishments of this past year, burn any remaining leaves of dissension, and approach the new and old problems confronting us as good doctors and good citizens. (Never must we overlook our voting privileges.)

One important duty is attending the medical meetings which are carefully arranged for your benefit. Their diversified programs should reflect your interests and they deserve your support.

Your officers, too, are desirous of sharing these interests. Communications and suggestions will be greatly appreciated and given every consideration.

Let this be a record year of achievement in the annals of our Society!

Editorial

THE TUBERCULOSIS SUSPECT

Modern methods of tuberculosis case finding have isolated a terrified group of persons labeld "suspicious tuberculosis." The stigma associated with this diagnosis is not of an abstract moral, ethical or even pestilent nature, but is manifested in the stark realities of economic insecurity and threats to dissolutions of family ties.

The treatment of proven tuberculosis should begin in a sanatorium. Here physical facilities, experienced personnel and comprehension of the disease in all its ramifications are most apt to result in its arrest, as well as in a happy solution to the ancillary social problems which inevitably accompany isolation and prolonged hospitalization. Should all tuberculosis suspects, however, be advised to enter the sanatorium for diagnosis?

The sanatorium patient must reorganize his life and remodel plans for the security of his family. He must give up a job and the income upon which his living has been predicated. Inevitably, extensive debts, time payments, insurance obligations, mortgages and the like are involved. Many Americans today live beyond their means. This appears true regardless of economic status. Under ordinary circumstances obligations are met, but if income stops for even short periods, disaster may result. Moreover, a job may not exist when the patient is discharged.

Responsibilities of raising a family may be left to a spouse incapable of assuming such an added load. A child may be forced to leave school in order to add to the family income. Young married children may be compelled to assume financial responsibilities for parents at a time when they themselves are struggling. A wife may be obliged to leave children inadequately supervised while she is at work. Sanatoria may be great distances from the home so that visits from family and friends are infrequent and unsatisfactory.

Some persons are stable enough to solve these and other complex problems, but to many no solutions are readily available.

Should all tuberculosis suspects be forced into a position where such socio-economic complications can arise or can this be avoided without endangering the health of the patient or those with whom he comes into contact?

It is essential first to recognize certain pitfalls in the diagnosis of pulmonary tuberculosis:

(1) Chest x-rays: Roentgenology points the way in the diagnosis of pulmonary tuberculosis, but the microscope settles the question. No one realizes his limitations more than an experienced roentgenologist. He reports suspicions, possibilities or probabilities, but seldom makes a forthright diagnosis of active tuberculosis. His suspicions, therefore, must be evaluated by a clinician. His impressions are less accurate when he is interpreting miniature films and especially so when these are being reported by the scores or more.

(2) Tuberculin Skin Test: A positive skin reaction supports or suggests the diagnosis of tuberculous disease. It is not definitive. Sensitivity may decrease or disappear in the course of high fever, exanthematous disease, miliary tuberculosis and terminal pulmonary tuberculosis. The tuberculin skin reaction is frequently abolished or reduced in intensity during ACTH or cortisone administration. A very small percentage of persons may fail to react to tuberculin after a natural tuberculous infection. The test itself may be improperly administered, the material inert or the syringe contaminated with other diagnostic materials such as coccidioidin or histoplasmin.

(3) Bacteriology: Although the demonstration of virulent tubercle bacilli in pulmonary secretions or gastric contents is the one inescapable criterion of active pulmonary tuberculosis, bacteriological examinations are not infallible. Glassware used in the examination may be contaminated and false positives result. Saliva or postnasal discharges may be collected and examined, although only secretions from the tracheo-bronchial tree are significant. While acid fast bacteria may be reported in sputum smears, the presence of tubercle bacilli can be substantiated only after cultural procedures or animal inoculation. Finally, as in all laboratory procedures, results are only as good as is the technician who reports them.

(4) Animal Inoculation: This is sometimes

necessary to differentiate between pathogenic and nonpathogenic acid fast bacilli, and may be helpful when dealing with specimens repeatedly contaminated on culture. It should be emphasized that the guinea pig may have pre-existing spontaneous tuberculosis and results are not dependable unless the animal has been skin tested prior to inoculation.

For these and other reasons, it is often difficult to establish a diagnosis of pulmonary tuberculosis. When facilities are available the private physician often refers the patient to a sanatorium in the belief that there early diagnosis can be made most readily. This is not always true. At least four factors tend to delay the proceedings:

(1) Because of the nature of tuberculosis, sanatoria physicians tend to think in terms of months and years rather than days and weeks. Treatment in the sanatorium proceeds leisurely and the urgent atmosphere of a general hospital or private practice is notably absent.

(2) Decisions may be affected by the current shortage of patients and resultant superfluity of beds. This in no way implies a conspiracy to keep patients who do not require hospitalization, but the maintenance of census and state subsidies might unconsciously influence some judgments.

(3) Because of their highly specialized interest in one disease—tuberculosis—sanatorium physicians are sometimes overzealous in eliminating this diagnosis and slow to establish the diagnosis of non-tuberculous diseases.

(4) Sanatorium physicians often recommend hospitalization instead of assuming the responsibility for outpatient diagnosis.

As a consequence the tuberculosis suspect may be hospitalized for a long time before the diagnosis of bronchogenic carcinoma, for example, is established, or active tuberculosis eliminated. By the time he is referred back to his private physician or to a specialist in diseases of the chest, antagonisms may have developed and the patient might turn instead to one of the fringe type healing arts for treatment.

In such situations the private physician is the instigator and the sanatorium director the accomplice in what must be considered at best poor management.

There is no doubt that a certain grace must be allowed in decisions reached because of the communicability of the disease. It is certainly preferable to hospitalize a patient unnecessarily than to expose his family and community to the risk of contracting his disease. Errors must be made on the cautious side.

It is my earnest contention, however, that the family physician should be reasonably certain that his patient has active tuberculosis before advising admission to a sanatorium. The temptation to transfer the responsibility of diagnosis to the sanatorium must be great. Indeed, the practitioner may believe this course of action to be proper.

The generalist should be reminded, however, that there are many simple things which he can do to settle the diagnosis. The following are suggested as procedures which may all be done on an outpatient basis:

(1) Take an adequate history and perform a physical examination. Although it should be unnecessary to mention this, patients are sometimes to be referred to the sanatorium unquestioned and unexamined.

(2) Refer the patient who has a suspicious miniature x-ray for a 14 x 17 film. This should preferably be interpreted by a radiologist.

(3) Make a conscientious effort to obtain previous chest x-rays. The value of comparative films cannot be overemphasized. These alone may establish the diagnosis of inactive tuberculosis or non-tuberculous disease.

(4) Obtain special views of the chest. Laterals, obliques, apical lordotics or laminograms should be ordered in many instances. Different projections alone may offer a simple solution to what may originally appear to be a complex problem.

(5) Skin test all patients. Routine tuberculin and histoplasmin skin testing should be done on all patients with diseases of the chest. Coccidioidin and blastomycin should be added in special instances. If the limitations and significance of skin testing is comprehended, the diagnosis may be established earlier, or at least certain diagnoses eliminated.

(6) Obtain sputum smears and cultures for tubercle bacilli, fungi and other organisms as indicated. If sputum is not available, gastric smears and cultures should be ordered. Guinea pig inoculations can confirm pathogenicity.

(7) All intimate contacts should be skin tested and/or x-rayed.

(8) In doubtful cases consultation can be obtained from a competent specialist in diseases of the chest.

(9) All diagnostic procedures up to, and including thoractomy should be done as early as possible.

If the sputum or gastric smears are negative there is usually no need to separate the suspect from his environment while awaiting the results of cultures. This is especially true if the patient is asymptomatic. The family physician should keep in close contact with his patient during this waiting period and follow his subsequent clinical course. Interval x-rays are indicated until a definite diagnosis is established or activity of the lesion ascertained.

Historically, the *care* of tuberculosis has been a governmental responsibility. Because of the nature of the disease this seems reasonable. *Diagnosis* of diseases of the chest, on the other hand, should be made in the office of the private practitioner.

Richard L. Rapport, M.D.
Chairman, Tuberculosis Control Committee, MSMS

NATIONAL LEGISLATION

This year's session of Congress passed only one bill of major significance to the medical profession. Senate Bill S.2162 was passed in the last few hours. This establishes contributory medical care insurance for about two million Federal workers and nearly three million dependents. The medical profession, Blue Cross and Blue Shield have been advocating this action for a number of years, believing that Federal employees should enjoy the same health benefits as employees of other organizations. The official who will supervise this program is to be appointed by the Civil Service Commission.

The international medical research bill (S.J. Res. 41) passed the Senate but is still in the House. The Congress did appropriate over $400 million to subsidize medical research. The Keogh Bill (HR 10), which would allow professional persons to establish retirement funds before income tax, is still in the Senate. The controversial Forand Bill (HR 4700) is still in the hopper ready to be considered at next year's session.

WE LOST THREE

During the summer just past, the medical profession in Michigan lost three outstanding workers.

L. Fernald Foster, M.D., died May 27, 1959, of leukemia. Dr. Foster had served the Michigan State Medical Society as Secretary for twenty-three years, able and willing to visit any part of the State where he could serve his profession best. He was one of the founders and ever present members of the Board of Directors of Michigan Medical Service, serving as its President for approximately three years. He understood doctors and their problems and always attempted to help solve them.

Ralph W. Shook, M.D., was stricken at his summer cottage near Traverse City. He died soon afterwards in the hospital on August 9, 1959. Dr. Shook was Councillor from the Fourth District and Chairman of the Finance Committee. He was a member of the Board of Trustees of Michigan Hospital Service and the Board of Directors of Michigan Medical Service. He was an alternate delegate to the American Medical Association. An enthusiastic worker, he never missed a meeting of any group, committee, board or The Council if it were at all possible to get there. He watched after the finances of the State Society and his advice on other matters was always well considered and well thought out before being offered. His death was completely unexpected by himself, his family, or his friends. He had had some difficulty but had tempered his work, taken more rest, and devoted more time to the administrative problems of the medical profession.

Grover C. Penberthy, M.D., died in his sleep on September 2, 1959. Dr. Penberthy had been President of the Michigan State Medical Society after having served on The Council and in many other capacities. He was head of the surgical department at Children's Hospital in Detroit for thirty years. He was delegate from the Section on Surgery (Abdominal) of the American Medical Association in its House of Delegates. He was active in the administration of Michigan Medical Service serving on the Board for about ten years. At the time of his death he was M.S.M.S. Chairman of the Permanent Advisory Committee on Fees to set up the fee schedule for Michigan Medical Service. Dr. Penberthy served with great distinction during both wars and in various capacities. He was surgical consultant to a corps area. In World War I he was in the personnel section of the Surgeon General. His death was completely unanticipated.

The State Medical Society and the medical pro-

fession in Michigan have lost three indefatigable, tireless workers, each of whom gave to the extent of his ability to improve the conditions of work, the ideals of the profession, and to make its services to the public always better.

NINETY-FOURTH ANNUAL SESSION

The Ninety-fourth Annual Session of the Michigan State Medical Society was held in Grand Rapids, September 27 to October 2, 1959, and included meetings of the House of Delegates, The Council, Blue Shield, and the scientific meeting.

The Council met in Lansing at 10 A.M. Sunday to conduct its regular meeting, to consider and pass upon final information, committee reports, and the supplementary report to be made to the House of Delegates. In the afternoon they adjourned to the site of the new home of Michigan State Medical Society and had an impressive ceremony of cornerstone laying, including the placing of materials in a box to be sealed in the wall. After that ceremony they drove to Grand Rapids to be ready for the House of Delegates meeting called for 8 P.M. that evening.

On Friday morning the Council met for breakfast, completed the unfinished business, heard more reports and then, as had been done for over twenty-five years, proceded to the election and re-election of certain officers. Two new members were introduced: William A. Scott, M.D., Kalamazoo, to take the place of Ralph W. Shook, M.D., deceased, and Robert J. Mason, M.D., of Birmingham, to replace D. Bruce Wiley, M.D., who had resigned earlier to accept the Secretaryship upon the death of L. Fernald Foster, M.D. Other changes in the membership were James J. Lightbody, M.D., Detroit, who advanced from Vice Speaker to Speaker, and Harold F. Falls, M.D., Ann Arbor, who became Vice Speaker. Kenneth H. Johnson, M.D., Lansing, was chosen by the House of Delegates as President-Elect. The Council re-elected A. E. Schiller, M.D., Detroit, as Chairman, and T. P. Wickliffe, M.D., Calumet, as Vice Chairman of The Council.

Because of the increased volume of business to be conducted by The Council and to facilitate more rapid reporting and dissemination, a resolution was passed that for the next 12 months, the whole Council conduct monthly meetings, but a call also is to go out to the Executive Committee. Fifty per cent of The Council is to be considered a quorum but in case that number is not present, that a quorum of the Executive Committee be considered a quorum for the conduct of business.

House of Delegates

The House of Delegates met in regular session on Sunday, Monday, Tuesday, Wednesday, September 27 to 30, heard and acted upon reports of the officers, of The Council and of committees, acted upon fifty-three resolutions, elected a foremost family physician, and elected new officers. At its special meeting on Wednesday morning it heard the report of the reference committee on medical service and pre-payment insurance. So much material had been referred to this committee and their hearings had occupied so many hours, that this special session was necessary. The actions of this committee will be reported with the other committee reports and transactions as soon as they are compiled.

Elections

William A. Scott, M.D., Kalamazoo, was elected as Councilor of the 4th District to replace Ralph W. Shook, M.D., deceased. B. M. Harris, M.D., Ypsilanti, was re-elected as Councilor of the 14th District. In the 15th District, D. Bruce Wiley, M.D., Utica, had resigned to become Secretary and Robert J. Mason, M.D., Birmingham, was elected to fill his vacancy. William Bromme, M.D., Detroit, was re-elected as Councilor of the 18th District.

Delegates to the American Medical Association, John S. DeTar, M.D., Milan; William A. Hyland, M.D., Grand Rapids; and Clarence I. Owen, M.D., Detroit, were re-elected. Orlen J. Johnson, M.D., Bay City, was elected as the new 7th delegate. John Wellman, M.D., Lansing; Gilbert Saltonstall, M.D., Charlevoix; W. W. Babcock, M.D., Detroit; B. M. Harris, M.D., Ypsilanti; and John R. Heidenreich, M.D., Daggett, were elected as alternate delegates to replace vacancies and give us the increased number of seven. Kenneth H. Johnson, M.D., Lansing, was made President-Elect; James J. Lightbody, M.D., Detroit, was selected as Speaker of the House of Delegates, and Harold F. Falls, M.D., Ann Arbor, was made Vice Speaker.

Michigan Medical Service

On Tuesday afternoon, September 29, 1959, members of the House of Delegates and others met as the corporate body of Michigan Medical Service. Reports were received covering the transactions for the year from G. Thomas McKean, M.D., Presi-

dent, who was selected at the June meeting to replace L. Fernald Foster, M.D., deceased. There were also reports from L. G. Goodrich, Vice-President and General Administrator, from Waldo I. Stoddard, Treasurer, and from John N. Lord, President of Michigan Hospital Service. All of this was presented in a 28-page bound volume. The election of directors resulted as follows: James B. Blodgett, M.D., Detroit, re-elected; Allan K. Cameron, M.D., Saginaw, new member; Ralph R. Cooper, M.D., Detroit, new member; John S. DeTar, M.D., Milan, a former member; James M. Gillen, public representative, Detroit, re-elected; Albert C. Kerlikowske, M.D., Ann Arbor, hospital representative, re-elected; R. L. Novy, M.D., Detroit, re-elected; John W. Rice, M.D., Jackson, new member; A. Kent Schafer, Traverse City, hospital representative, re-elected; Donald N. Sweeny, Jr., M.D., Detroit, new member; Donald W. Thorup, M.D., Benton Harbor, re-elected; and Michael C. Kozonis, M.D., Pontiac, new member. The Blue Shield Commission, through a committee, has been studying problems of Blue Shield, its organization and administration, by invitation in Michigan as it has in several other states. Three members of that study group attended the meeting of the corporation and gave a preliminary report with talks and questions. The visitors included Donald Stubbs, M.D., Washington, D. C., National President; Russell Carson, M.D., from the Florida Board; and John Castalucci, Chicago, Executive Vice-President.

Foremost Family Physician

Archer A. Claytor, M.D., Saginaw, was selected as Michigan's Foremost Family Physician. He is sixty-five years old and has practiced in Saginaw since 1936. He has been extremely active in all matters involving his profession and his community. He received many telegrams from AMA officers, President Eisenhower, and others.

General Summary

Fifteen Resolutions dealt with the MSMS and the prepayment plan concept, or more particularly, Michigan Medical Service.

After exhaustive hearings, in which ample opportunity was provided for all who wished to express themselves, the Reference Committee on Medical Service and Prepayment Insurance made its report, and its recommendations, which with minor exceptions and few amendments from the floor, were concurred in by large majority votes, indicating a general spirit of unity.

The House approved the issuance of "income not certified" policies to all who wish to buy them; the continued sponsorship of prepaid medical care coverage by MSMS; commended the work of the MCIC; declared that the basis for service contracts should be the family income, not subscriber income and recommended lowering the present $7,500 ceiling to $6,500 as soon as feasible; endorsed a maximum continuous term of office for MMS Board of Directors members of six years; recommended changes in nominating procedures to MMS's Board of Directors; asked that an assignment blank be incorporated on the Doctor's Service Report form; and urged a wider dissemination of information by MMS differentiating between hospital and medical costs.

It also, at the suggestion of the Reference Committee, authorized the appointment of a House committee to work in co-operation with the advisors from the National Blue Shield Committee for Review of Michigan Medical Service Problems, and referred the 1957 Statement of Principles to that new group for review and revision.

Twenty Resolutions pertained to Administrative Changes and Statements of Policy. In approving thirteen of them the MSMS recognized the centennial celebration of the Kalamazoo State Hospital; urged that legislation be prepared that would deny subpoena power on hospital medical staff committee reports; authorized appointment of a House Committee to review the Constitution and Bylaws and report its recommendations next year; recommended improvements in adoptions procedures; urged County Medical Societies to set up civil defense training programs; advocated establishment of geriatrics chairs in the state's medical schools; approved naming of a House of Delegates Committee to study the entire problem of malpractice; and encouraged support for Michigan Health Council and other community medical career enlistment programs.

It also directed the MSMS Secretary to furnish minutes of the MSMS Council and its Executive Committee to the secretaries of the county societies, and to Delegates on their request.

In concurring in a recommendation of The Council, it provided that, upon request, a county medical society may obtain a review of its organizational and administrative practices, as well as recommendations regarding services which

might be offered to increase local public relations potential. The evaluating team would consist of experienced county and state society officers, plus lay experts.

The problem of aging was invited to the attention of the Michigan Association of the Professions and the Michigan Hospital Council by a Resolution recommending discussions leading to the lowering of professional fees for services rendered to the "over-65" persons.

Eighteen Resolutions were introduced which proposed changes in the MSMS Constitution and By-laws. Nearly half of them were of such a nature that the House directed their referral to study committees from which it hoped to obtain more information before taking action.

The House did approve some changes. The delinquency date for dues was changed from April 1 to May 15, and there was set up a reduced schedule of dues for new physicians, who would be liable for one-third of the MSMS dues in their first year and one-half in the second.

Also, the MSMS Cancer Control Committee was eliminated and the name of the MSMS Legislative Committee was changed to the Legal Affairs Committee. Incorrect references in the by-laws to the terms "meeting" and "session" were eliminated and the phrase "disciplinary measures" was changed to "investigative procedures" in Chapters 6 and 7. In view of the fact that MSMS is now entitled to seven Delegates to the AMA, instead of six, provision was made so that four Delegates could be elected in one year, instead of the present limit of three. Membership on the Ethics Committee was reduced from eight to five.

Referred to special Committees for study were proposals for election by the House of the MSMS Secretary, Treasurer and Editor, rather than by The Council as at present.

BLUE SHIELD—THE "PATIENT'S PLAN"

We often refer to our medically-sponsored Blue Shield Plan as the "Doctors' Plan." And this is entirely meet and proper if we think of ourselves, not as the owners or principal beneficiaries of Blue Shield, but as its trustee—responsible for providing its promised benefits to our patients.

For just as our profession achieves its power and its glory through service to humanity, so, too, the one and only mission of Blue Shield is to serve the economic needs of our patients. It's the subscriber who "pays the piper"—and it's he, ultimately, who "calls the tune."

We American physicians are uniquely privileged by the tremendous acceptance that the people have accorded our doctor-sponsored prepayment program. In supporting Blue Shield, more than forty million of our fellow-citizens have cast their lot with us, endorsing our traditional pattern of medical practice, and rejecting—at least *pro tem*—the alien forms under which most of our colleagues abroad are compelled to serve.

But the people have not only *accepted* Blue Shield; they are *demanding* an ever better and broader prepayment program. We have not only "sold" them Blue Shield, but we've sold them a confident expectation that we can and will eventually provide *all* the benefits of modern medicine through a prepayment program.

Whether the people of the U.S.A. achieve this ultimate goal through a prepayment program shaped and guided by our profession is a question that challenges the leadership of American medicine today and tomorrow.

PULMONARY DISEASE

(Continued from Page 1831)

atypical irregular hyperchromatic cells (Fig. 18, Case 6). There was evidence of ulceration and necrosis. The lymph nodes were not involved.

This case emphasizes the value of the established practice of bronchoscopic as well as bronchographic examination of patients suspected of having bronchiectasis.

The above representative cases clearly demonstrate that a patient may be subjected to x-ray examination, skin testing, bronchoscopic examination, bronchographic examination, scalene node biopsy, and bacterological and cytological examination in order to diagnose a thoracic lesion and yet no definite diagnosis is established. An exploratory thoracotomy as a diagnostic procedure is then indicated. An increasing number of patients are now subjected to this procedure. With the increased use of mass radiography, more chest lesions are being brought to the attention of the thoracic surgeon. The risk of a thoracotomy is far less than the risk of leaving undiagnosed a lesion in the chest which may be resected with a good prognosis. Therefore, this procedure should not be denied any patient if every other attempt at diagnosis has been exhausted and no definite diagnosis established.



Saginaw delegates and county medical society president admire Doctor Claytor's Foremost Family Physician Award following the formal presentation by the House of Delegates in Grand Rapids. Around Dr. Claytor are Joseph P. Markey, M.D., seated left; Donald Sargeant, M.D., county president, seated right; A. C. Stander, M.D., standing left, and Vernon V. Bass, M.D., standing right.

Honor Saginaw Man "Foremost Family Physician"

"I didn't think it could happen to a member of my group, and since it did happen, it would only be in America."

That observation was made by Archer A. Claytor, M.D., of Saginaw, as he received the scroll as "Michigan's Foremost Family Physician" at the MSMS 1959 annual session at Grand Rapids.

Dr. Claytor, a family physician at Saginaw for the past twenty-three years and a community leader, received the scroll from Kenneth H. Johnson, M.D., Lansing, speaker of the Michigan State Medical Society House of Delegates.

The delegates had elected Dr. Claytor to the honor. After many county medical societies nominated members for the honor and a state committee narrowed the field to three. Dr. Claytor was nominated by the Saginaw County Medical Society.

In receiving the honor for 1959-1960, Dr. Claytor admitted that it was a surprise to him—and that it could have happened "only in America."

Born of slave parents in Virginia, Dr. Claytor was the eleventh of thirteen children. All thirteen children were graduated from high school and taught public school. One brother, now dead, went on to become a dentist.

Present to watch the ceremonies were his wife Marie, and a brother, Robert W. Claytor, M.D., who practices in Grand Rapids. The Claytors have two daughters, Elinor, eighteen, a freshman art student at Michigan State University, and Carol Ann, sixteen.

Dr. Claytor is a recognized leader at Saginaw—as a past president of the Saginaw First Ward Community Center, a member of the Saginaw Housing Commission, director of the Saginaw Community Chest, and the recipient of a citation from the American Legion.

Last year, he was appointed by President Eisenhower to a six-year term as a member of the governing board of the Virgin Islands.

He has been nominated now by MSMS for the AMA. "Practitioner of the Year" award.

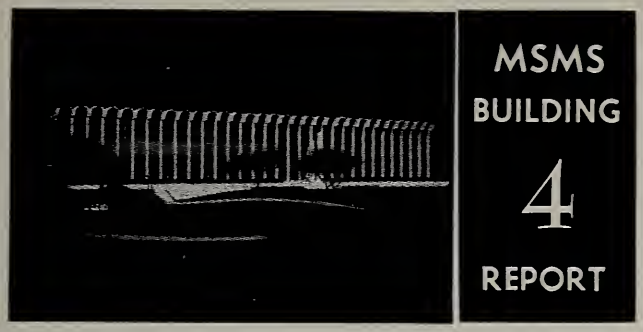




MSMS memorabilia is sealed into the cornerstone by President Saltonstall assisted by President-elect Darling (left) and Council Chairman Schiller.



Principal speaker at the MSMS cornerstone-laying event was Minoru Yamasaki, the architect for the new headquarters. Shown seated from left to right are program participants, Secretary D. Bruce Wiley, M.D.; R. W. Teed, M.D.; Council Chairman A. E. Schiller, M.D.; President-elect Milton A. Darling, M.D.; and President G. B. Saltonstall, M.D.



Monthly Building Report Features Ground Breaking Ceremony . . .



"A Doctor's Prayer" was read during the cornerstone ceremony by its author, R. Wallace Teed, M.D., Ann Arbor, as MSMS officers seal the marble slab into place.

In formal ceremonies on a sunny Autumn day, the cornerstone of the new MSMS headquarters in East Lansing was installed by officers and councilors.

Presiding at the ceremony was Council Chairman A. E. Schiller, M.D. The event, Sunday, September 27, was attended by more than 150 doctors and their wives.

Principal speaker during the brief ceremony was the building's architect, Minoru Yamasaki, of Birmingham, who discussed his philosophy of architecture.

In the cornerstone cavity was placed historical and contemporary documents of the Michigan State Medical Society. In addition many prominent citizens of Michigan had been invited to make their predictions as to the state of health and medicine in the year 2,000 A.D. The prognostications were sealed in the cornerstone to be opened forty years hence.

The cornerstone memorabilia were placed in a lead container by President G. B. Saltonstall, M.D., President-Elect M. A. Darling, M.D., and Secretary D. Bruce Wiley. M.D. The container was then sealed into a cavity behind a slab of white marble inscribed with the numerals, 1959.

Concluding the ceremony was the reading of "A Doctor's Prayer" written especially for the occasion by R. Wallace Teed, M.D., of Ann Arbor: "Loving Father of all, we thank Thee for the gift of Thy Son, Jesus Christ, who came to this Earth to give Himself a ransom for many, and to demonstrate Thy love in His life and in His healing ministry, and for the example that He gave to physicians in caring for those who have been afflicted by disease or injury.

"Grant that as physicians we may dedicate our lives to the ideal of service to others, as He did, allowing nothing to demean that ideal.

"Give us love for Thee and for our fellowman, so that our service will be motivated by Thee, and come from the heart.

"Give us knowledge of our world, and of Thee, the source of all Truth, and lead us into that wisdom which comes from Thee alone. Keep us mindful of our deficiencies, and of our need of daily guidance by Thine unerring Hand.

"Guide our steps in the way of Truth, and bring us at last into Thine eternal Home. Amen."

Place Predictions for 2,000 A.D. in Cornerstone

What will be the health of the nation in year 2,000 A.D.?

An insight into the possibilities was given at the cornerstone ceremonies for the new Michigan State Medical Society headquarters in East Lansing.

At the ceremonies of "Predictions about medicine and health in 2,000 A.D." were placed in the cornerstone. The prognostications will be opened in 40 years.

The predictions concerned such subjects as the older age group, major diseases of today, changes in hospital care, mental health and others.

"In the year 2,000, the birth-bulge of the 1940's will just be moving into the older-age group to present a critical health problem," predicted W. N. Hubbard, Jr., Dean, University of Michigan Medical School.

Dean Hubbard also commented that "I would predict that the complexities of accurate diagnosis and specific therapy in the year 2,000 will have resulted in an ever-increasing specialization in Medicine."

The president of the Michigan State Medical Society, G. B. Saltonstall, M.D., of Charlevoix, prophesied that "by the year 2,000, the average life span will have increased to 85 years for men and 90 years for women." He also suggested that "rheumatic fever and rheumatic heart disease will be prevented by an anti-toxin pill given as part of the antibiotic therapy of streptococcic infections."

Many improvements in public health and medicine are foreseen by A. E. Heustis, M.D., State Health Commissioner. He said, "Synthetic foods will have helped quiet the cry of hungry babies in half the world, sanitation will have rolled back the fevers of environmental disease, fluoridation of all public water supplies will have reduced tooth decay by two-thirds, and new medicines will have been found to prevent or cure one-time major ailments such as tuberculosis and cancer."

"Hospitals will be automated," wrote A. Kent Schafer, of Traverse City, president of the Michigan Hospital Association. He said, "For example, hospital central kitchens will be eliminated. All dietary requirements will be radiologically preserved and will be reconstituted at the bedside, electronically, and on demand."

"Cancer, as a dreaded disease, will have been eliminated." That contention was made by William M. LeFevre, M.D., Muskegon physician who is president of the Michigan Association of the Professions. He also predicted that the human race will be menaced by several diseases which at present are unknown.

Governor G. Mennen Williams, in his predictions, wrote, "In the year 2,000 there will be no reason, indeed no excuse, for substandard living and health conditions." He also commented that "We will be training hundreds of additional doctors, specialists, nurses and technicians each year and will undoubtedly be considering the establishment of a fourth Michigan medical school long before the year 2000."

In the predictions of John A. Hannah, president of Michigan State University, he noted that "We will have made so much progress in eliminating bad housing and unsanitary living conditions that these will no longer be influential health factors."

Robert D. Swanson, president of Alma College, wrote, "If we continue at our present rate, the chief problem which the medical profession will face in 2,000 will be that of sustaining human health in the face of a heavily-saturated radioactive world."

Raymond H. Dresser, of Sturgis, president of the State Bar of Michigan, sees ahead—"Large community health centers will be created, with clinic-type medicine in conjunction with such hospital medical centers."

Concern about the women was voiced by Audrey K. Wilder, of Albion, president of the Michigan division of the American Association of University Women. "Even now, the life pattern of women is changing, early marriage and child-bearing plus the increasing needs of society will put women back into the labor field in their late thirties and forties, with an accompanying improvement in their physical and mental health."

Fear is expressed about future problems by Don R. Pears, of Buchanan, Speaker of the Michigan House of Representatives. "An ever-expanding industrialized civilization will result in an increase in respiratory diseases, and the disposal of atomic wastes also will present an acute medical problem."

Obstetrical Brevits

The Antepartum and Intrapartum Use of Pituitary-like Preparations

The use of Pituitrin, or one of its substitutes with similar oxytoxic action, before the end of the second stage of labor, has become so widespread that the propriety of its utilization under such circumstances has been questioned. To induce labor at a time which is convenient to the patient and unlikely to interfere with the physician's routine, and to accelerate a slow, indolent labor are so attractive that it is not surprising that its use for such purposes has become more and more prevalent.

In the Michigan Maternal Mortality Study there have been found a number of maternal deaths that occurred after the use of pituitary-like substances to either induce or stimulate uterine contractions. In these cases, death was caused by rupture of the uterus, by uncontrollable postpartum hemorrhage, or premature separation of the placenta. The effects of such practices on the infant are less tangible and involve such factors as perinatal mortality, cerebral palsy and mental retardation. In a recent review of 6,860 electively induced labors Keettel, Randall and Donnelly concluded that one in every two hundred perinatal deaths could be traced directly to the induction; the principal factors being: (a) prematurity 3.1 per cent; (b) prolonged latent period 5.0 per cent; (c) malpresentation 0.9 per cent; and (d) prolapsed cord 0.3 per cent. In their series there were thirty-five breech presentations and twenty-nine twin pregnancies which were unrecognized. Many authorities feel that labor should be induced only for medical or obstetrical indications.

Even the more avid enthusiasts for the antepartum and intrapartum use of these oxytoxics emphasize the importance of rigid observance of certain contraindications, namely:

1. Prematurity.
2. Dilatation of the cervix less than 2 cms.
3. Effacement of the cervix less than 50 per cent.
4. Dysproportion.
5. Malposition, including breech presentation.
6. Engagement incomplete.
7. Four or more previous pregnancies.
8. Previous cesarean section.
9. Deep cervical lacerations.
10. Hydrocephalus or fetal tumors.

They also insist on continuous observation by a physician with a general anesthetic, narcotic and oxygen in readiness.

These criteria can be complied with in a relatively few large urban hospitals, staffed by obstetrical specialists. In the average smaller hospital without internes or residents the practice must usually be considered ill advised.

BABIES BORN IN HOSPITALS

Twenty years ago less than 40 per cent of all babies born in this country were delivered in hospitals. Now, with infant and maternal mortality at all-time lows, the figure is about 95 per cent. Obstetrical cases had little effect on the increase in total days of care, though, since average length of stay per patient dropped from 10.1 to 4.4 days.

Michigan's Department of Health

Albert E. Heustis, M.D., State Health Commissioner

GAMMA GLOBULIN SUPPLIES INCREASED

The enlarged blood fractionation program of the Michigan Department of Health is now operating at full capacity in the new facility. As a result, larger supplies of immune serum globulin are now available to physicians, health officers, and hospitals. Immune serum globulin is available through full-time health departments, the Michigan Department of Health at Lansing or the branch laboratories of the department at Grand Rapids, Powers, and Houghton, for the following purposes:

A. Measles

(1) Immune serum globulin is available for the modification or passive prevention of measles in children who are contacts of known cases of measles. Generally modification is to be preferred to passive prevention.

(2) The dose for modification is 0.02 cc. per pound body weight five to six days after exposure.

(3) The dose for prevention is 0.1 cc. per pound body weight as soon after exposure as possible.

(4) Immune serum globulin is not available for treatment.

B. Infectious Hepatitis

(1) Immune serum globulin is available only for household contacts of cases of infectious hepatitis.

(2) The prophylactic dose is 0.02 cc. per pound body weight and should be given to all household contacts as soon as possible after a case occurs in a household.

(3) Immune serum globulin is not available for treatment.

C. Rubella—Pregnant Women

(1) Immune serum globulin is available for pregnant women exposed to rubella only if the exposure occurs during the first four months of pregnancy.

(2) The dose is 20 cc. as soon after exposure as possible.

D. Hypogammaglobulinemia

(1) Immune serum globulin is available for cases of hypogammaglobulinemia only if the diagnosis has been confirmed by electrophoretic analysis.

(2) The maintenance dose varies according to the extent of the deficiency and must be determined for each individual.

E. Poliomyelitis

(1) Immune serum globulin is of no value in and, therefore, is not available for contacts of poliomyelitis.

It is still necessary to obtain a report of a case of infectious hepatitis before releasing immune serum globulin for the household contacts. It is no longer necessary to keep a record of the contacts either to cases of infectious hepatitis or measles.

TPCF OUT: RPCF IN

Beginning on October 1, the Michigan Department of Health discontinued Treponema Pallidum Complement Fixation testing and began routinely making Reiter Protein Complement Fixation tests on all reactive Kahn specimens. Formerly, the TPCF tests were made only at the request of the private physician.

"The RPCF test is a comparatively recent development in the serodiagnosis of syphilis. Evaluations by reference laboratories as well as the department laboratories, indicate that it has a far greater degree of specificity than standard reagin serologic tests. The RPCF test uses the protein fraction of Reiter's organism and presumably is free of the lipid antigen which reacts with reagin. With the better tools now available, it is easier to separate those who are true biologic false positives from those who are actually syphilitic.

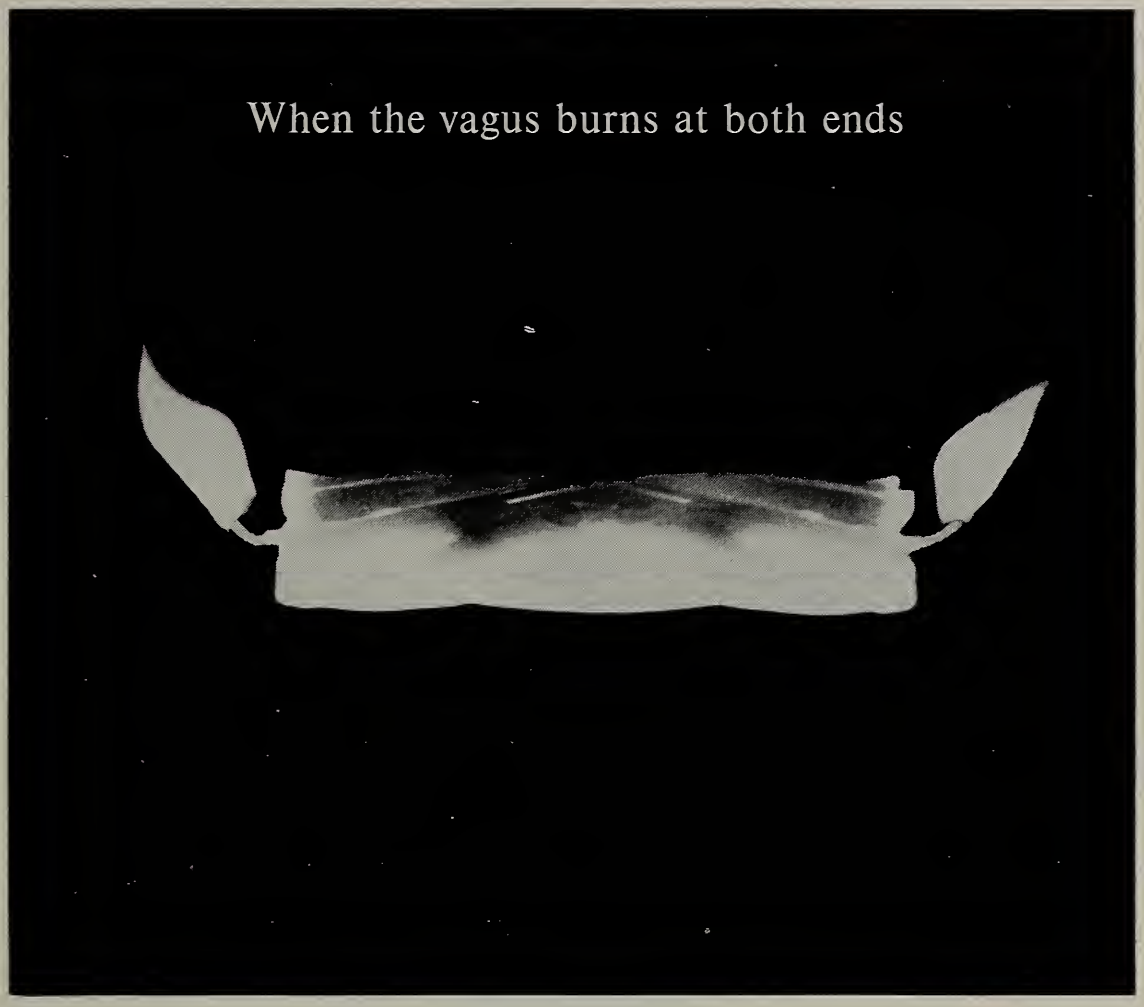
The change to routine RPCF testing of all reactive Kahns will mean (1) that results will be available sooner because specimens will not be accumulated until a large number can be run at once, as with TPCF; (2) that a better diagnosis will be made, since the RPCF is more specific than the TPCF; and (3) that this service will be less costly to the state.

In conjunction with this change, the State Health Commissioner declared on September 23, 1959, that in accordince with Acts 207, P.A. 1937, and 106, P.A. 1939, the Reiter Protein Complement Fixation test be added to the approved standard serologic tests for syphilis. This test is in addition to the Hinton, Kahn, Kline, Kolmer, Mazzini, Treponema Pallidum Complement Fixation, and the VDRL, as standard serologic tests for syphilis.

The RPCF tests, for the present at least, will be made only at the Lansing and Grand Rapids Laboratories of the Michigan Department of Health.

DOES RIGID CONTROL OF THE BLOOD SUGAR PREVENT THE CARDIOVASCULAR COMPLICATIONS OF DIABETES?

To determine the effect on vascular disease of good or poor control of diabetes, it is necessary that a large number of patients be studied by the same observers. Dr. Ricketts cites the results reported by the Joslin group on 189 patients wherein 76 per cent of the cases under good control exhibited no or slight retinopathy, and 67 per cent of the patients under poor control showed moderate, marked, or extreme retinopathy.—Henry T. Ricketts, M.D., *Illinois Medical Journal*, May, 1959.



Pro-Banthīne® with Dartal® moderates both mood and gastrointestinal spasm

The slow simmer of anxiety frequently causes kindred gastrointestinal overactivity. The spasticity and the accompanying distress of excess acid lead to loss of efficiency. Patients subject to such psychoenteric upsets require therapy to calm both ends of the vagus.

Pro-Banthīne with Dartal contains two agents required for such dual therapy: Pro-Banthīne to control and curtail the flare-ups of spasm, excess acidity and excess motility, and Dartal to smother simmering anxiety and tension.

Pro-Banthīne with Dartal contains 15 mg. of Pro-Banthīne (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride) in each tablet.

Dosage: One tablet three times a day.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

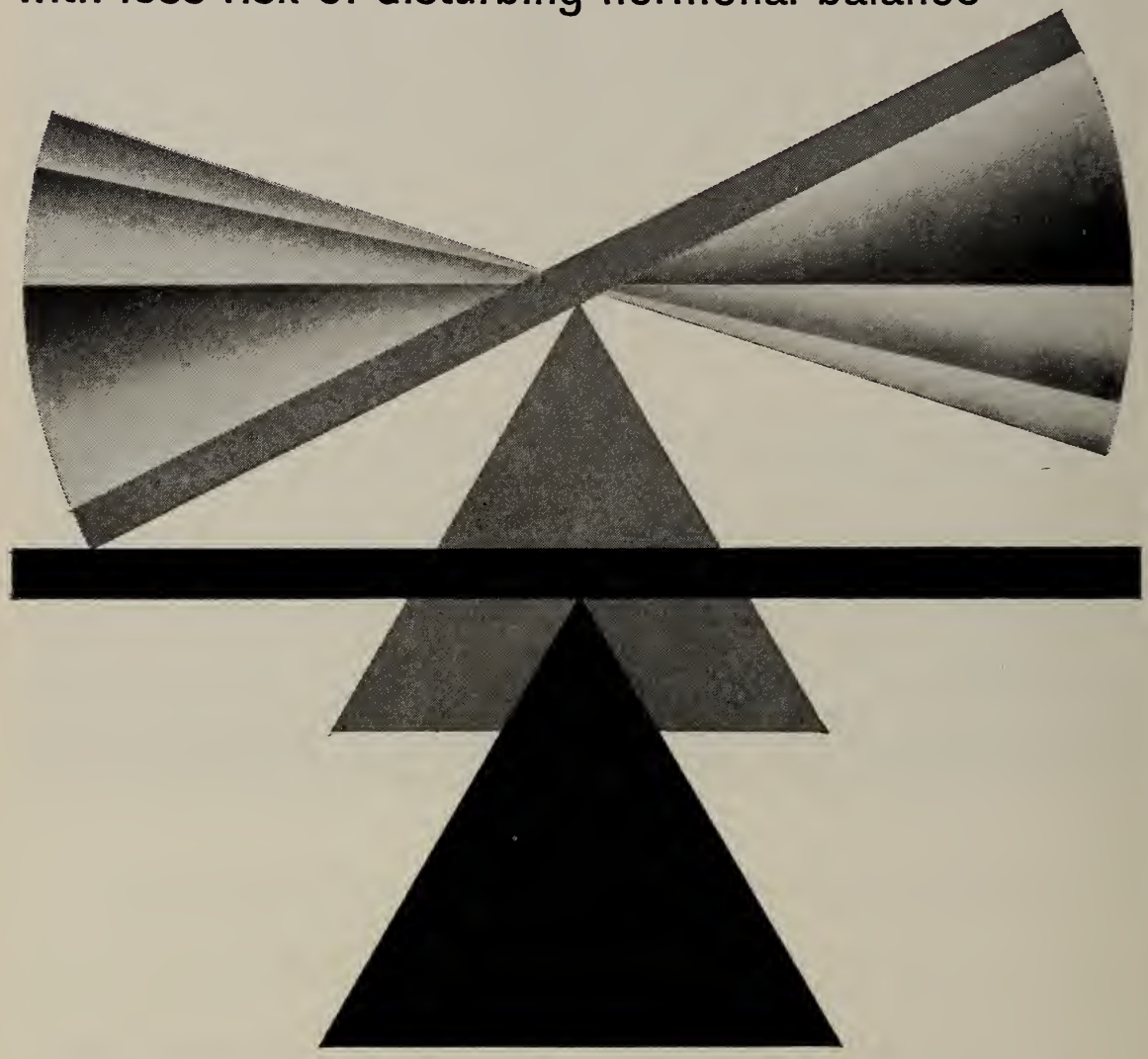
Effective relief in rheumatic disorders

Sterazolidin® capsules

prednisone-phenylbutazone Geigy

Geigy

with less risk of disturbing hormonal balance



In the treatment of the rheumatic disorders new Sterazolidin provides a method of limiting the gravest danger inherent in steroid therapy... hypercortisonism arising from excessive dosage.

Repeatedly it has been shown that the addition of low dosage of Butazolidin sharply reduces hormone requirement.[1-4] Sterazolidin is a combination of prednisone (1.25 mg.) and Butazolidin (50 mg.) which provides, in the majority of cases, consistent relief at a stable uniform maintenance dosage significantly below the level at which serious hormonal imbalance is likely to occur.

Sterazolidin® (prednisone-phenylbutazone Geigy). Each capsule contains prednisone 1.25 mg.; phenylbutazone 50 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg. and homatropine methylbromide 1.25 mg.

1. Kuzell, W. C., and others.: Arch. Int. Med. 92:646, 1953. 2. Wolfson, W. Q.: J. Michigan M. Soc. 54:323, 1955. 3. Strandberg, B.: Brit. J. Phys. Med. 19:9, 1956. 4. Platt, W. D., Jr., and Steinberg, I. H.: New England J. Med. 256:823 (May 2) 1957.

Geigy, Ardsley, New York

03869

...Pathibamate®

meprobamate with PATHILON® tridihexethyl chloride Lederle

for relieving tension and curbing hypermotility and excessive secretion in G. I. disorders

PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

meprobamate (400 mg. or 200 mg.)—a tranquilizer and muscle-relaxant widely accepted for the effective management of tension and anxiety

PATHILON (25 mg.)—an anticholinergic long noted for producing prompt symptomatic relief through peripheral, atropine-like action, yet with few side effects

now available...

PATHIBAMATE-200 Tablets

200 mg. meprobamate • 25 mg. PATHILON

for more flexible control of G. I. trauma and tension smooth, sugar-coated, easy-to-swallow

PATHIBAMATE-400 and PATHIBAMATE-200 are indicated for duodenal ulcer; gastric ulcer; intestinal colic; spastic and irritable colon; ileitis; esophageal spasm; anxiety neurosis with gastrointestinal symptoms and gastric hypermotility.

Supplied: PATHIBAMATE-400—Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride 25 mg.

PATHIBAMATE-200—Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: PATHIBAMATE-400—1 tablet three times a day at mealtime and 2 tablets at bedtime.

PATHIBAMATE-200—1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.

Adjust dosage to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

In Memoriam

SYDNEY K. BEIGLER, M.D., fifty-eight, Detroit surgeon, died September 5, 1959. Doctor Beigler, a native of Detroit, was a graduate of the University of Michigan Medical School and served his internship at the University of Wisconsin Hospital. He was on the surgical staff of Harper and Sinai hospitals.

WILLIAM L. BETTISON, M.D., sixty-three, Grand Rapids practitioner of internal medicine, died September 19, 1959. Born at Ishpeming, Doctor Bettison received his medical degree in 1922, at the University of Michigan and then specialized in internal medicine in four years of post-graduate work there and later at Harvard medical school. He was a staff member of Blodgett and St. Mary's hospitals. Doctor Bettison was a member of Fountain Street Baptist Church, the Grand Rapids Rotary and the York Lodge No. 410, F & AM.



MAX R. BURNELL, M.D., sixty-five, Flint, retired Medical Director of General Motors, died September 20, 1959. Born at Metamora, Doctor Burnell's family moved to Flint when he was a child. After attending Flint high school and Albion college, he graduated in 1918 from the University of Michigan School of Medicine. He taught at the Long Island College Hospital, returning to Flint in 1921 to enter private practice in Obstetrics and Gynecology. Doctor Burnell was guided into industrial medicine by his friend, Harlow W. Curtice, who in 1931, as general manager of the A. C. Spark Plug Division, hired Doctor Burnell to organize a medical department for that division. In 1949, Doctor Burnell was appointed G.M.'s medical director, succeeding Dr. Clarence D. Selby, Port Huron. Doctor Burnell retired in 1958, after twenty-eight years of service to G.M.

He was the last of the three original members of the medical advisory committee of the Clara Elizabeth Fund for Maternal Health. In 1952, he received the William S. Knudson award for outstanding contributions to Industrial Medicine.

Doctor Burnell had served on the Executive Committee of the Medical Staff of Hurley Hospital and was a past chief of the medical staff of McLaren General Hospital. He was a member of Sigma Chi and Nu Sigma Nu Fraternities, Flint City Club, Flint Golf Club, Flint Rotary Club, Detroit Club and the Recess Club of Detroit. Doctor Burnell was a long time chairman of the MSMS committee on Occupational Health.

MILTON DOUGLAS COMFORT, M.D., fifty-four, Flat Rock doctor for thirty years, died in Wyandotte General Hospital, the morning of September 8 from in-

(Continued on Page 1872)

Say you saw it in the Journal of the Michigan State Medical Society

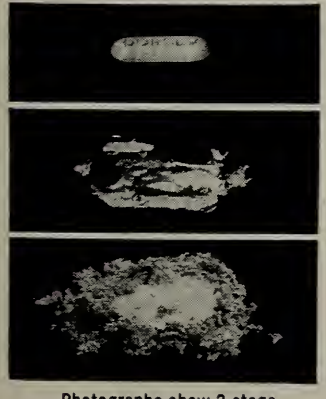
MAINTENANCE THERAPY WITHOUT STEROIDS IS FUNDAMENTAL

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid.

In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.



Photographs show 2-stage Tandem Release disintegration.

Each tablet contains:

Acetylsalicylic acid (5 gr.).....300 mg.
Para-aminobenzoic acid (5 gr.)....300 mg.
Ascorbic acid ..... 50 mg.
Dried aluminum hydroxide gel....100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. 257:278 (Aug.) 1957.

Buffered **Pabirin®** *Tablets*

SMITH-DORSEY · a division of The Wander Company · Lincoln, Nebraska · Peterborough, Canada

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

MEDICAL ARTS

SUPPLY COMPANY
311 State Street, S.E. Phone GL 9-9413

PHARMACY
20-24 Sheldon, S.E. Phone GL 6-9661

DRIVE-UP PHARMACY
311 State Street, S.E. Phone GL 9-8294

Grand Rapids, Michigan

MILTON DOUGLAS COMFORT

(Continued from Page 1866)

juries received in a car-truck crash on U.S. 24. Born in Middlesex County, Ontario, he attended Canadian schools and was graduated from the University of Ontario, London, in 1928. His internship was at Harper Hospital, Detroit. Doctor Comfort was a member of the Flat Rock Rotary Club, the Elks, the Masonic Lodge, the Alpha Kappa Medical Fraternity and the Flat Rock Methodist Church.

BERNARD HAMLIN GLENN, M.D., seventy-seven, Fowlerville physician, died September 21, 1959.

A lifetime resident of Livingston County, Doctor Glenn attended Pinckney High School. In 1908, he received his medical degree from the University of Michigan and served his internship at Pinckney Sanatorium. A residency was taken at the Michigan State Tuberculosis Sanatorium at Howell after which, in 1909, Doctor Glenn began his fifty years of active practice in Fowlerville.

Active in Livingston County Medical Society affairs, he was president in 1936. In 1958 Doctor Glenn received the Fifty Year Award from the Michigan State Medical Society. Doctor Glenn was a life member of Fowlerville F. & A.M., and the Detroit Sovereign Consistory, a member of the Fowlerville Commercial Club and the Presbyterian Church of Howell.

WILLIAM BOYD HORNSBY, M.D., seventy-four, Clinton physician, died September 9, 1959.

Doctor Hornsby was born at Laurel Creek, Kentucky, the son of a doctor. He attended rural schools at Burning Springs, Kentucky, graduating from Oneita Baptist Inst. in 1901. He attended Berea College, before entering the University of Louisville, where he graduated in 1911, as a doctor of medicine. He had practiced in Clinton for thirty-six years and was on the medical staff at Herrick Hospital, Tecumseh, Michigan.

M. S. MARTZOWKA, M.D., fifty-six, Roscommon, died September 5, 1959. Born and raised in Saginaw, Doctor Martzowka was graduated in 1931 from the University of Michigan Medical School. He moved to Roscommon in 1932, after completing his internship at Mercy Hospital in Bay City. He was a former chief of staff of the Grayling Mercy Hospital.

Doctor Martzowka was active in community affairs, had been a member of Gerrish-Higgins high school board of education for twelve years, and was president of the board at the time of his death. He was a charter member and past president of the Rotary Club of Roscommon, a member of the Masonic Lodge 579 at Houghton Lake and a member of the Congregational Church in Roscommon.

EMIL V. MAYER, M.D., seventy-two, Detroit physician, died September 16, 1959. Formerly a Chicagoan, Doctor Mayer was graduated from Loyola University of

(Continued on Page 1874)

Say you saw it in the Journal of the Michigan State Medical Society

Now —All cold symptoms can be controlled



Tussagesic

timed-release tablets

Controls congestion
with Triaminic,[1,2,3] the leading oral nasal decongestant.

Controls aches and fever
with well-tolerated APAP, non-addictive analgetic[4] and excellent antipyretic.[5]

Each TUSSAGESIC Tablet provides:

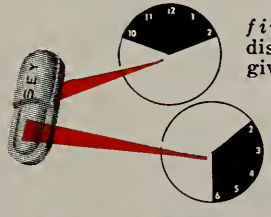
TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

References: 1. Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958. 4. Bonica, J. J.: in Drugs of Choice, Mosby, St. Louis, 1958, p. 272. 5. Dascomb, H. E.: in Current Therapy, Saunders, Phila., 1958, p.78. 6. Bickerman, H. A.: in Drugs of Choice, Mosby, St. Louis, 1958, p.547.

Controls cough centrally
with non-narcotic Dormethan, possessing "amply demonstrated" antitussive activity,[6] as effective as codeine.

Liquefies tenacious mucus
with terpin hydrate, classic expectorant.

Prompt and prolonged relief because of this special "timed release" design:



first — the outer layer dissolves within minutes to give 3 to 4 hours of relief

then — the inner core releases its ingredients to sustain relief for 3 to 4 more hours

Dosage: One tablet in the morning, midafternoon and at bedtime. Pediatric dosage chart for Tussagesic Suspension available on request.

TUSSAGESIC SUSPENSION provides palatability and convenience which make it especially attractive to children and other patients who prefer liquid medication.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska



. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

T. B. Patton, M.D., Champ Lyons, M.D., Birmingham, Alabama, **C. G. Johnston, M.D.,** and **Prescott Jordan, Jr., M.D.,** Detroit, are the authors of an article entitled, "Lateral Portacaval Anastomosis For Portal Hypertension," presented before the Course in Postgraduate Gastroenterology of the American College of Gastroenterology, New Orleans, Louisiana, October, 1958, and published in *The American Journal of Gastroenterology,* September, 1959.

Bernard E. Levine, M.D., and **John M. Weller, M.D.,** Ann Arbor, are the authors of an article entitled, "A Comparison of Three Oral Diuretic Agents," published in the *University of Michigan Medical Bulletin,* July, 1959.

Ralph A. Straffon, M.D., and **Antonio M. Garcia, M.D.,** Ann Arbor, are the authors of an article entitled, "A Clinical Evaluation of the Radioactive Diodrast Renogram as a Screening Test in Hypertension," presented at the Southeastern Section of the American Urological Association, Louisville, Kentucky, March 20 to April 2, 1959, and published in *The University of Michigan Medical Bulletin,* July, 1959.

William W. Coon, M.D., and **Frederick A. Coller, M.D., F.A.C.S.,** Ann Arbor, are the authors of an article entitled, "Clinicopathologic Correlation In Thromboembolism," published in *Surgery, Gynecology and Obstetrics,* September, 1959.

Ralph A. Straffon, M.D., and **Alton J. Coppridge, M.D.,** Ann Arbor, are the authors of an article entitled, "Respiratory Paralysis and Severe Potassium Depletion After Ureterosigmoidostomy," read before the Section on Urology at the 108th Annual Meeting of the American Medical Association, Atlantic City, June, 1959, and published in *The Journal of the American Medical Association,* September 12, 1959.

Gilbert B. Saltonstall, M.D., Charlevoix, and **Max Lichter, M.D.,** Detroit, are the authors of two articles which were published in the June, 1959, *Journal of the Michigan State Medical Society,* and reprinted in *Connecticut Medicine,* September, 1959. The titles are "The Norm is Shocking," and "The Physician Views Financing of Hospital and Medical Care," respectively.

Ronald C. Bishop, M.D., and **Frank H. Bethell, M.D.,** Ann Arbor, are the authors of an article entitled, "Hereditary Hypochromic Anemia With Transfusion Hemosiderosis Treated With Pyridoxine," reported in part at the Seventh Congress of the International Society of Hematology, Rome, Italy, September, 1958, and published in *The New England Journal of Medicine,* September 3, 1959.

H. Rosenbaum, M.D., Robert Black, M.D., and **D. W. Visscher, M.D.,** Detroit, are the authors of an article entitled, "Highlights—1959 Meeting—American College of Physicians," published in *Harper Hospital Bulletin,* July-August, 1959.

James B. Raymer, M.D., Dick A. Tarpinian, M.D., and **Solomon G. Meyers, M.D.,** Detroit, are the authors of an article entitled, "Recurrent Symptoms After Cholecystectomy," published in *Harper Hospital Bulletin,* July-August, 1959.

Jan Nyboer, D.Sc., M.D., Detroit, is the author of an article entitled, "Regional Pulse Volume and Perfusion Flow Measurement: Electrical Impedance Plethysmography," published in *Harper Hospital Bulletin,* July-August, 1959.

Giovanni Chiappe, M.D., and **J. H. Hertzler, M.D.,** Detroit, are the authors of an article entitled, "Pectus Excavatum," published in *Harper Hospital Bulletin,* July-August, 1959.

Louis A. Schwartz, M.D., Detroit, is the author of an article entitled, "Harper Hospital Profiles IV. Dr. Arnold Leon Jacoby," published in *Harper Hospital Bulletin,* July-August, 1959.

Philippe Lauwers, M.D., Ann Arbor, is the author of an article entitled, "Mechanisms of Action and Use of Chlorothiazide as an Antihypertensive Agent," published in the *International Record of Medicine,* September, 1959.

Joseph L. Ponka, M.D., J. DeWitt Fox, M.D., and **Brock E. Brush, M.D.,** Detroit, are the authors of an article entitled, "Coexisting Carcinoma and Diverticula of the Colon," read at the 16th Annual Meeting of the Central Surgical Association, Montreal, February 20, 1959, and published in *AMA Archives of Surgery,* September, 1959.

Max E. Dodds, M.D., Flint, is the author of an article entitled, "Squamous-Cell Carcinoma of the Tonsil," read at the 16th Annual Meeting of the Central Surgical Association, Montreal, February 21, 1959, and published in *AMA Archives of Surgery,* September, 1959.

William J. Fry, M.D., Darrell A. Campbell, M.D., and **Frederick A. Coller, M.D.,** Ann Arbor, are the authors of an article entitled, "Lymphangiosarcoma in Postmastectomy Lymphedematous Arm," read at the 16th Annual Meeting of the Central Surgical Association, February 21, 1959, Montreal, and published in *AMA Archives of Surgery,* September, 1959.

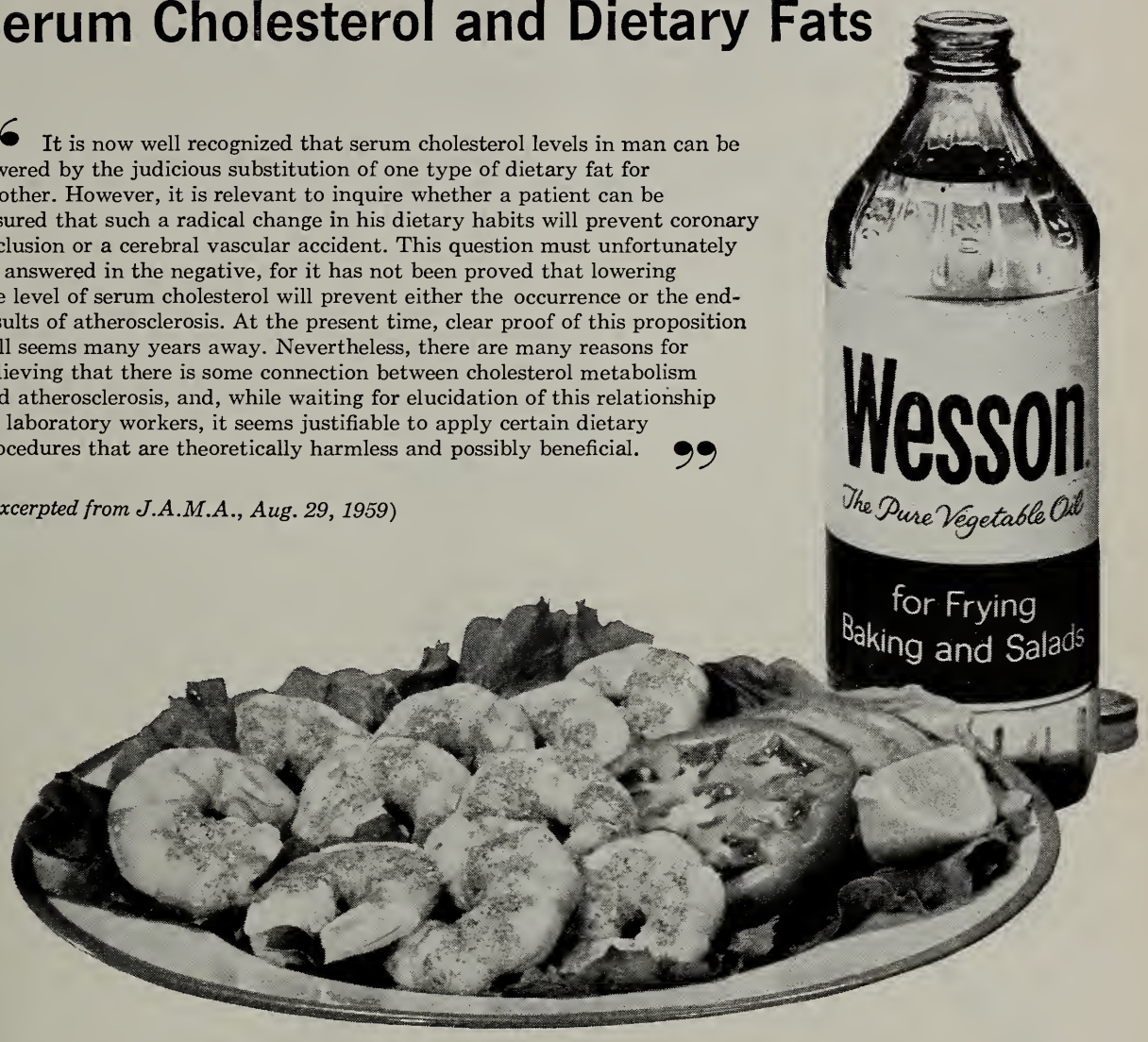
William H. Rattner, M.D., Detroit, is the author of an article entitled, "The Rare Prostatic Neoplasms," pub-

(Continued on Page 1886)

A Significant Statement about Serum Cholesterol and Dietary Fats

"It is now well recognized that serum cholesterol levels in man can be lowered by the judicious substitution of one type of dietary fat for another. However, it is relevant to inquire whether a patient can be assured that such a radical change in his dietary habits will prevent coronary occlusion or a cerebral vascular accident. This question must unfortunately be answered in the negative, for it has not been proved that lowering the level of serum cholesterol will prevent either the occurrence or the end-results of atherosclerosis. At the present time, clear proof of this proposition still seems many years away. Nevertheless, there are many reasons for believing that there is some connection between cholesterol metabolism and atherosclerosis, and, while waiting for elucidation of this relationship by laboratory workers, it seems justifiable to apply certain dietary procedures that are theoretically harmless and possibly beneficial."

(*Excerpted from J.A.M.A., Aug. 29, 1959*)



Where a poly-unsaturated oil is called for in the diet, Wesson satisfies the most exacting requirements (and the most exacting appetites).

To be effective, a diet must be *eaten* by the patient. The majority of housewives prefer Wesson,* particularly by the criteria of odor, flavor (blandness) and lightness of color.

Uniformity you can depend on. Wesson has a *poly*-unsaturated content better than 50%. Only the lightest cottonseed oils of highest iodine number are selected for Wesson, and no significant variations in standards are permitted in the 22 exacting specifications required before bottling.

Each pint contains 437—524 Int. Units of Vitamin E.

Wesson's Important Ingredients:

Linoleic acid glycerides	50% to 55%
Phytosterol (predominantly beta sitosterol)	0.4% to 0.7%
Total tocopherols	0.09% to 0.12%

Never hydrogenated—completely salt free

*Reconfirmed by recent tests against the next leading brand with brand identifications removed, among a national probability sample.

(Continued from Page 1884)

lished in *American Practitioner and Digest of Treatment*, September, 1959.

Peter A. Martin, M.D., and **H. Waldo Bird, M.D.,** Detroit and Ann Arbor, are the authors of an article entitled, "A Marriage Pattern: The 'Lovesick' Wife And The 'Cold, Sick' Husband," published in *Psychiatry: Journal for the Study of Interpersonal Processes,* August, 1959.

* * *

The Legislative Committee of MAP reports that the 1959 Michigan Legislature has made three significant changes in the Business Activities Tax (BAT) law, applicable to all professions and businesses:

1. The tax rate is increased from 6½ mills to 7¾ mills.
2. The $10,000 general exemption is increased to $12,500.
3. Taxes on those professional practices and businesses experiencing a low-profit or non-profit year may be substantially reduced with the incorporation of a new "tax credit formula."

For professional practices and businesses grossing $100,000 or less the tax credit formula is of little importance.

The significant result of these changes is that professional persons and businessmen grossing up to $51,000 will pay the same or a lesser tax than at present. Professional practices or businesses grossing from $51,000 to $100,000 will pay up to a maximum of $30.63 more than under the old schedule.

* * *

Lecturer from Delhi.—Doctor B. K. Anand (M.D.), chairman of the department of physiology at the All-India Institute of Medical Sciences in Delhi, gave a public lecture September 11 at the University of Michigan Medical Center under the sponsorship of the U-M departments of psychology and psychiatry.

A specialist in changes in bodily activities caused by stimulation of the deep parts of the brain, Dr. Anand is visiting research laboratories in the United States and Canada under a Rockefeller Foundation fellowship.

* * *

Clean Work Space.—Speaking before the Institute of Sanitation Management, Howard F. Wolf, building service superintendent of the 1,050-bed University Hospital, said a trained and specialized group should have primary responsibility for keeping production work-space clean.

* * *

New Appointment.—Bruce D. Graham, M.D., professor of pediatrics at the University of Michigan Medical Center, has been appointed Chairman of the Department of Pediatrics at the University of British Columbia in Vancouver, Canada.

He will assume his new position in November.

Dr. Graham joined the Medical Center staff after receiving his M.D. degree from Vanderbilt University in

(Continued on Page 1888)

2 year guarantee

FULL SIZE

superior AC rejection

19 other engineering achievements

SPEEDS: 25 / 50 mm/sec.

Of course, the Birtcher has and always did have: Both 25 and 50mm paper speeds; A 2 year guarantee; Automatic continuous timing; Automatic blanking between leads; The fastest, simplest paper loading yet conceived; Full width paper; Full size trace; Linearity of base line at any point on the trace; Higher AC rejection; Accuracy beyond question, and now . . .

The new LEVELTEMP® styli

only the new

BIRTCHER Model 300 ELECTROCARDIOGRAPH

has all these features

One hand operation

NOBLE-BLACKMER, INC.

267 W. Michigan Ave. Jackson, Mich.

UNIQUE VITAMIN SUPPLEMENT

NEW VIGRAN CHEWABLES

SQUIBB MULTIPLE VITAMIN SOFT TABLETS

fruit-punch flavored tablets that will actually "melt in the mouth"



can be chewed like candy



can be crushed and sprinkled on cereal or other food



can be dissolved in water, juice or milk



can be sucked and will dissolve like a lozenge



can be easily swallowed (small tablet size)

VIGRAN CHEWABLES *taste like candy*, but contain *no ingredients harmful to teeth.* Important, too, is that VIGRAN CHEWABLES *dissolve easily* in the mouth and *smell good.* These advantages will also appeal to your elderly patients. And VIGRAN CHEWABLES provide at least 125% of the minimum daily requirements for vitamins A, D, B_1, B_2, niacinamide and C, and significant amounts of other essential vitamins.

Each VIGRAN CHEWABLE tablet contains:

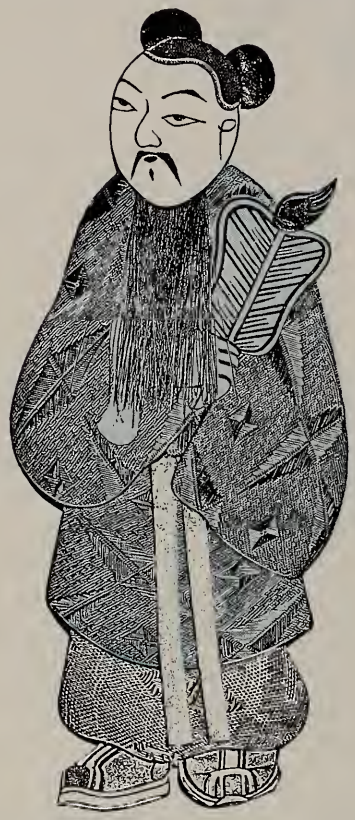
Vitamin A	5,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Vitamin C	75 mg.
Vitamin B_1	3 mg.
Vitamin B_2	3 mg.
Vitamin B_6	2 mg.
Niacinamide	25 mg.
Calcium Pantothenate	3 mg.
Vitamin B_{12}	5 mcg.

Available in Rx-size bottles of 30 and 90.

SQUIBB *Squibb Quality— the Priceless Ingredient*

'Vigran'® is a Squibb trademark

immortals of chinese mythology:



Chung-li Chu'an

This powerful magician revived the souls of the dead with a wave of his fan and gained a lasting place in Taoist legend

...this pioneer corticosteroid has proved invaluable in treating *millions* of living patients

METICORTEN

METICORTEN,® brand of prednisone, 5 mg. tablets

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

You will soon receive in your mail a full-color, handmade, three-dimensional figure of this Chinese Immortal, mounted and suitable for framing.

5-318

Schering

(Continued from Page 1886)

1942. He is a Diplomate of the American Academy of Pediatrics and a member of the Society of Pediatric Research. His research interests lie in the study of the metabolism of premature and newborn infants.

* * *

Medical Students.—Researchers at the University of Michigan predict that expansion of college enrollment will double the number of Michigan applicants to medical schools by 1967. The future supply of medical school applicants will be adequate for any contemplated expansion of medical training facilities in Michigan.

Studies have been under way for several years looking toward the possible creation of a third medical school in the state. The two existing medical schools at Wayne State University and the University of Michigan have space for only 325 future doctors each year.

Each year over half the freshman medical students from Michigan come from metropolitan Detroit. An additional 34 per cent come from the state's populous southern counties. All the rest of Michigan provides only 13 per cent of each entering class.

The researchers also learned that students from different pre-medical colleges have varied success when applying to medical schools.

Sixty-nine per cent of applicants who take pre-med training at the "big" universities—Wayne, MSU and the U-M—are accepted. This compares with 57 per cent accepted who had their training in smaller colleges.

A controversial aspect of medical school placement concerns the out-of-state student. Here the investigators found "Michigan is a debtor state." For 1957 (when the last complete data were analyzed), forty-eight Michigan students entered out-of-state medical schools, while only 25 out-of-state students were admitted to Michigan medical schools.—S. J. Axelrod and W. R. Mills in *Journal of Medical Education,* September.

* * *

Staphylococcal Infections.—The National Library of Medicine has just issued a supplement to the bibliography on Staphylococcal infections. Copies may be obtained at no cost by applying to the Acquisition Division, National Library of Medicine, Washington, 25, D. C.

* * *

Tuberculosis and Adult Health—C. J. Tupper, M.D., Assistant Dean, University of Michigan Medical School, and Frank Reynolds, M.D., Associate Professor, School of Public Health, University of Michigan, will be the speakers at the Seventh Annual In-Service Training Program in Chronic Disease of the Michigan Department of Health to be held December 14 and 15.

Doctor Tupper and Doctor Reynolds will speak at a dinner meeting in the Porter Hotel at 6:30 P.M. on Monday, December 14. Doctor Tupper's subject is "Periodic Health Appraisal." Doctor Reynolds will speak on "Community Health Implications." All interested physicians are invited to attend. Reservations for the dinner meeting should be made through the Division of Tuberculosis and Adult Health, Michigan Department of Health, IV 4-1491, Ext. 232 and ask for Mrs. Marcella Pierce.

(Continued on Page 1890)


it started
as a
"cold"...
to prevent
the sequelae
of u.r.i. ...
and relieve the
symptom complex
ACHROCIDIN®
Tetracycline-Antihistamine-Analgesic Compound Lederle
Sinusitis, otitis, tonsillitis, adenitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.(1) To protect and relieve the "cold" patient... ACHROCIDIN.
Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline HCl (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP, caffeine-free.
(1) Estimate based on epidemiologic study by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122, Jan. 1933.
Lederle
LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 1888)

Honored by A.M.W.A.—Jacques Pierce Gray, B.A., M.D., M.P.H., Detroit, Mich., educator, investigator, scientist, medical leader and Visiting Lecturer of the American Medical Writers' Association, has been honored as recipient of its Distinguished Service Award for 1959. In his association with the special services of Parke, Davis & Company, Dr. Gray has traveled widely throughout the United States and Canada, giving lectures on medical writing to students in medical schools and training hospitals in an endeavor to improve communication in medicine and its allied fields.

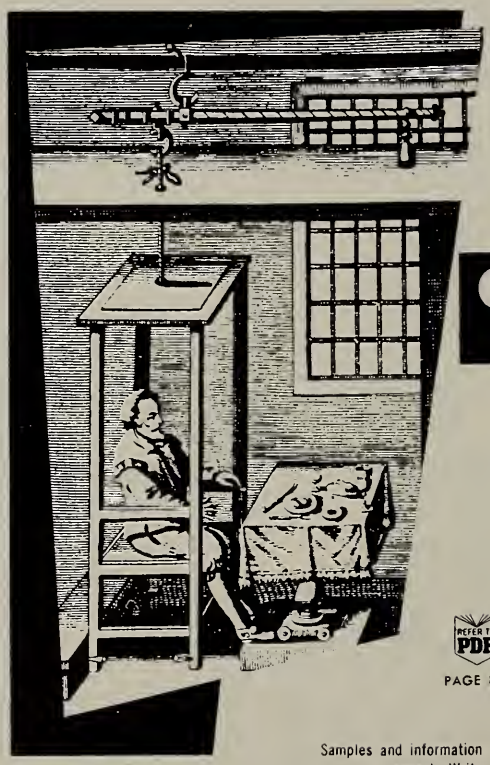
The Distinguished Service Award is given annually to a fellow of the Association "who has made distinguished contributions to medical literature or rendered unusual and distinguished services to the medical profession." The citation given in connection with the award reads in part: "Through your indefatigable participation in educating young men in medical writing and medical communication, you have greatly advanced the motives of the American Medical Writers' Association. Your work as a member of the United States Public Health Service, as an epidemiologist in the State of California and your teaching in Stanford University School of Medicine, did much to prepare you for this contribution. Your subsequent activities as a director of public health projects for the Kellogg Foundation and as dean of the School of Medicine and Professor of public health in Virginia and as dean of the School of Medicine in the University of Oklahoma gave you practice and prestige in medical education."

Gifts and Research Grants.—The University of Michigan Board of Regents at its meeting on September 25, 1959 accepted gifts, grants and bequests totalling $444,152.44. Among those with a medical significance were:

From the estate of Floyd Fletcher Wooton, Waterford Township, *Oakland County,* the Regents accepted $38,100 representing the first partial distribution of a bequest to the U-M for "support of research investigation of paralysis and mental and nervous disorders associated with disorders of the blood vessels of the central nerves." The Sarah Pegg Wooton and Jeannette Amanda Wooton Memorial Fund has been established for this purpose. The fund is named in memory of Wooton's mother, Sarah Pegg Wooton, and of his wife, Jeannette Amanda Wooton; $31,622 from the W. K. Kellogg Foundation, *Battle Creek,* with $23,622 representing the first payment on a five-year commitment of $158,800 to establish the Kellogg Foundation Hospital Administration Program Development Fund. There was a second grant of $8,000 representing the third payment on a five-year commitment to the Medical School for training of teachers in the area of genetics under the direction of Dr. James V. Neel.

From the estate of Miss Margaret R. Lynds, *Moncton, New Brunswick, Canada,* the Regents accepted a bequest of $25,000 to establish the Dr. James Lynds Fellowship, in memory of her brother. The net annual income from this fund is to be awarded annually to enable a Medical

(Continued on Page 1896)



Sanctorius on his steelyard chair in the act of weighing himself for o metobolism experiment

in obesity

bring the . . . MOOD UP

. . . WEIGHT DOWN

keep BLOOD PRESSURE LEVEL with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR PAGE 826

Samples and information on request. Write or ask your TUTAG representative

TUTAG S. J. TUTAG & COMPANY DETROIT 34, MICHIGAN



when upper respiratory congestion is complicated by bacterial invaders

TRISULFAMINIC provides logical therapy

- for the patient ill with congestion and infection of the upper respiratory tract, as in purulent rhinitis, sinusitis, tonsillitis and otitis media, when caused by sulfa-susceptible bacteria;
- because secondary invasion by such bacteria so frequently follows the common cold.[1]

the reasons for combining Triaminic with triple sulfas

Triaminic and triple sulfas are not only pharmacologically *compatible,* they are a therapeutically *logical* combination for upper respiratory infections: Triaminic for effective decongestant relief from rhinitis, rhinorrhea and sinusitis;[2] triple sulfas for well-established antibacterial action.

The advantages of Trisulfaminic in upper respiratory infections include: proved effectiveness; safety; economy; ease of administration; less likelihood of sensitivity reactions;[3] compatibility with antibiotics and other antibacterial therapy. Provided also as Suspension for additional convenience.

Trisulfaminic®

TRIAMINIC WITH TRIPLE SULFAS

Available as TABLETS and SUSPENSION

Each easy-to-swallow Trisulfaminic Tablet or 5 ml. teaspoonful of Suspension provides:

Triaminic® .....25 mg.
(phenylpropanolamine HCl 12.5 mg.
pheniramine maleate ..... 6.25 mg.
pyrilamine maleate ..... 6.25 mg.)
Trisulfapyrimidines, U.S.P. .....0.5 Gm.

Dosage:

Adults—2 to 4 tablets or tsp. initially, followed by 2 tablets or tsp. every 4 to 6 hours until the patient has been afebrile 3 days. *Children 8 to 12* – 2 tablets or tsp. initially, followed by 1 tablet or tsp. every 6 hours. *Children under 8*—dosage according to weight.

The palatability, convenience and effectiveness of the Suspension make it especially suitable for children and for those older patients who prefer liquid medication.

References: 1. Cecil, R. L., et al.: J.A.M.A. 124:8 (Jan. 1) 1944. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Beckman, H.: Drugs, Their Nature, Action & Use, Saunders, Philadelphia, 1958, p. 527.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

(Continued from Page 1890)

School graduate in further study or research in surgery.

A total of $13,480 was accepted from the Mott Foundation, *Flint,* with $8,740 to be used for two dentistry fellowships and $4,740 for medical scholarships.

W. K. Kellogg Company, *Battle Creek,* has given a total of $12,400 in two grants with $10,000 for research by Dr. H. Marvin Pollard dealing with gluten in the absorption of fat, carbohydrate and protein in wheat sensitive patients. A grant of $2,400 is to establish a fund for a study of concentrate acceptability, also under the direction of Dr. Pollard.

There were two grants in a total amount of $6,250 from Parke, Davis and Company, *Detroit 32.* One of $5,000 is for the Edgar A. Kahn Neurosurgery Fund and there was one of $1,250 for surgical research.

U.M. Research Grants.—The Aaron Mendelson Memorial Trust, 1900 National Bank Bldg., *Detroit,* has made a grant of $5,000 representing the first annual installment on a $15,000 grant for the Edgar A. Kahn Neurosurgery Fund.

The Michigan Heart Association, 3919 John R., *Detroit 1,* has made a quarterly payment on the Dean's Fund amounting to $3,814.

Clyde W. Clark, Dearborn Tool & Die Co., 10200 Ford Road, *Dearborn,* has given $3,205 for intestinal research by Dr. H. Marvin Pollard.

The Department of Biological Chemistry will receive $3,000 as an unrestricted grant from the Upjohn Company, *Kalamazoo.*

A grant-in-aid of $2,000 for chemical study of anti-inflammatory agents under the direction of Dr. John M. Sheldon has been provided by William S. Merrell Company, *Cincinnati 15, O.*

* * *

Midwinter Seminar.—The Fourteenth Annual Florida Midwinter Seminar in Ophthalmology and Otolaryngology will be held in January, 1960, convening January 24 and continuing through January 30. The Americana at 9701 Collins Avenue, Miami Beach, has again been chosen for this year's meeting.

The lectures on Ophthalmology will be presented on January 25, 26 and 27. The lecturers for these courses will be the distinguished Ophthalmologists, Bernard Becker, M.D., St. Louis, Missouri; David C. Cogan, M.D., Boston, Massachusetts; Robert N. Shaffer, M.D., San Francisco, California; Joseph A. C. Wadsworth, M.D., New York City, New York; and Frank B. Walsh, M.D., Baltimore, Maryland.

The outstanding speakers, who will lecture on Otolaryngology on January 28, 29 and 30 are Lawrence R. Boies, M.D., Minneapolis, Minnesota; Maurice H. Cottle, M.D., Chicago, Illinois; Howard P. House, M.D., Los Angeles, California; Merle Lawrence, Ph.D., Ann Arbor,

(Continued on Page 1898)



Athemol FOR ARTERIOSCLEROSIS

Athemol (R), Meyer brand of Magnesium 3-7-dimethyl xanthine oleate, is a new compound for the treatment of arteriosclerosis and atherosclerosis.

Athemol tablets are available in bottles of 100 and 500

MEYER AND COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE • ST. CLAIR SHORES, MICH.



Of course, women like "Premarin"®

THERAPY for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

The patient isn't alone in her devotion to this natural estrogen. Doctors, husbands, and family all like what it does for the patient, the wife, and the homemaker.

When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

Ayerst Laboratories • New York 16, N. Y. • Montreal, Canada

Ayerst®

5854

(Continued from Page 1896)

Michigan; and Joseph H. Ogura, M.D., St. Louis, Missouri.

The complete program with a schedule of lectures and the titles of all papers will be sent about November 15.

On Wednesday afternoon, January 27, at 6:30 P.M., all registrants and their wives will be guests at a cocktail party at the Americana. At 8 P.M. Wednesday evening, there will be an informal dinner for all registrants and their wives, with dancing and an outstanding floor show. Tickets at $10.00 each (which include gratuities) must be obtained in advance. The price of the dinner tickets can be included in your check for your Seminar deposit. This will be refunded if you cannot attend, provided forty-eight (48) hours notice is given. Apply at the Registration Desk for your tickets on arrival.

* * *

Poliomyelitis Rehabilitation Research.—Problems of returning severely disabled polio patients to worthwhile living will continue to be studied during the coming year at the Poliomyelitis and Rehabilitation Center of the University of Michigan Hospital in Ann Arbor, supported by a $93,929 March of Dimes grant.

The award was made public jointly by Dr. A. C. Kerlikowske, director of the University Hospital, and Basil O'Connor, president of The National Foundation.

Medical director of the Poliomyelitis and Rehabilitation Center is David G. Dickinson, M.D. His group had to expand its operation to care for respiratory patients who were stricken during the worst polio epidemic in Detroit's history last year.

One of sixteen polio demonstration and evacuation centers supported by the March of Dimes across the nation, the Ann Arbor center carries on a three-fold program of (1) giving comprehensive care to severely paralyzed polio patients; (2) teaching modern rehabilitation techniques to medical professional personnel, including physicians, nurses, physical therapists, medical social workers and others; and (3) conducting clinical research in polio problems to improve procedures for restoring the handicapped to as nearly a normal life as possible.

* * *

Congenital Esophageal Atresia.—The earliest known report of esophageal atresia was made by a physician named William Durston 300 years ago. However, the first successful operation which completely corrected the condition and saved a child was done at the U-M Medical Center.

Surgeons at The University of Michigan Medical Center have successfully carried out more than 200 operations.

There are several varieties of the abnormality. Most commonly, the upper portion of the esophagus ends in a blind sack, and the lower portion (leading to the stomach) grows out of the windpipe.

(Continued on Page 1900)



BRIGHTON HOSPITAL

A non-profit foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
One block south of U. S. 16 at Kensington Road
Brighton, Michigan
ACademy 7-1211



Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 1898)

Since food cannot reach the stomach, the infant will die of starvation if the disorder goes uncorrected.

Correction of the disorder requires a three-hour operation by a team of six, including doctors, nurses and anesthetists.

If there is too great a gap in the natural esophagus to permit joining its ends together, the surgeon must form the connection by transplanting a portion of the patient's own intestine. This requires a second operation when the child is two or three years old.

* * *

American Academy of Pediatrics.—Three U.M. Professors attended the Annual Session in Chicago, October 5-7, 1959. Dr. Harry A. Towsley, professor of pediatrics and communicable diseases and associate director of the Department of Postgraduate Medicine; Dr. Arthur C. Curtis, chairman of the Department of Dermatology; and H. Harlan Bloomer, director of the Speech Clinic.

Professor Bloomer was chairman of a roundtable discussion on hearing and speech problems of children.

* * *

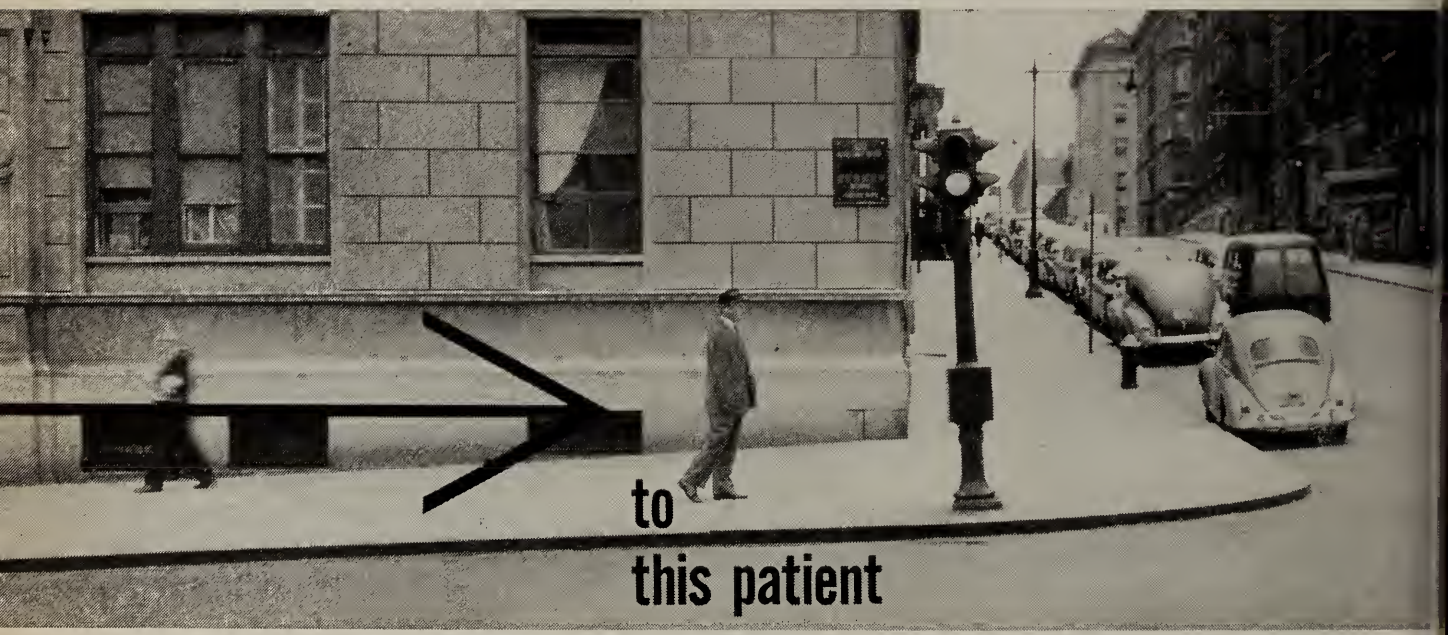
The annual Wayne State University Symposium on Blood regularly held during the third week in January will be dropped this year. Thus the ninth one will be scheduled for 1961. Detroit will, however, be the host city for an International Symposium on Platelets sponsored by the Henry Ford Hospital. The dates for this event are March 17, 18, and 19 in 1960. Inquiries may be addressed to Shirley A. Johnson, at Henry Ford Hospital, Detroit. She is serving as chairman of the local committee. Walter H. Seegers is chairman of the National Advisory Committee.

* * *

Michigan Tuberculosis Association.—Dr. C. J. Stringer, medical director of the Ingham Chest Hospital, was re-elected president of the M.T.A. at the 52nd annual meeting. Others re-elected were Charles H. Baker of Jackson, first vice president; Lloyd Humbarger of Battle Creek, second vice president; Mrs. Cecil O. Creal of Ann Arbor, secretary; and Harry D. Bennett of Lansing, treasurer. Named to the M.T.A. Executive Committee were Owen Baughman of Kalamazoo, Dr. Henry J. Klos of St. Joseph, Dr. Arthur W. Strom of Hillsdale, Theo V. Eddy of St. Clair, F. R. Phillips of Alma, William E. Shane of Detroit, and Dr. Oscar D. Stryker of Mt. Clemens.

* * *

The Vaughan Award.—Dr. Henry F. Vaughan, recently retired dean of the University of Michigan School of Public Health, was honored at the 52nd annual meeting of the M.T.A. Theodore J. Werle, former M.T.A. executive, presented a silver tray to Dr. Vaughan on behalf of the Christmas Seal organization. Werle said that during Vaughan's twenty-two years of service as health commissioner of Detroit, he developed a tuberculosis control system second to none in the nation. . . . "Although Dr. Henry Vaughan has been an active



with intermittent claudication every block was a mile long

now... **arlidin**

makes the blocks so much shorter...
he can walk many more of them in comfort

u. s. vitamin & pharmaceutical corporation
Arlington-Funk Laboratories, division
250 East 43rd Street, New York 17, N. Y.

leader in numerous phases of public health," Werle said, "his work in tuberculosis alone is enough to make him one of Michigan's great sons."

* * *

American Board of Obstetrics and Gynecology.—The Part I Examinations of the American Board of Obstetrics and Gynecology are to be held in various parts of the United States and Canada, on Friday, January 15, 1960, at 2:00 P.M.

Candidates notified of their eligibility to participate in Part I must submit their case abstracts within thirty days of notification of eligibility. No candidate may take the Written Examination unless the case abstracts have been received in the office of the Secretary.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

Student American Medical Association.—Austin E. Smith, M.D., President of the Pharmaceutical Manufacturers Association of Washington, D. C., has accepted appointment to the National Advisory Council of the Student American Medical Association, world's largest independent association of resident physicians, interns and medical students. Dr. Smith's acceptance fills the vacancy caused by the death of Dr. Warren E. Furey, Chicago.

Serving with Doctor Smith, former editor of *The Journal of the American Medical Association,* on the Council are: David Buchanan, M.D., Past National President of SAMA, Huron, South Dakota; Ward Darley, M.D., Executive Director, Association of American Medical Colleges, Evanston, Illinois; Mark R. Everett, Ph.D., Dean, University of Oklahoma School of Medicine, Oklahoma City; Hugh H. Hussey, Jr., M.D., Dean, Georgetown University School of Medicine, Washington, D. C., and Edward L. Turner, M.D., Director, Division of Scientific Activities, American Medical Association, Chicago, Illinois.

* * *

The American Academy of Physical Medicine and Rehabilitation announce the election of the following officers for 1959-60:

President, Clarence W. Dail, M.D., Los Angeles
President-Elect, Ray Piaskoski, M.D., Milwaukee
Vice-President, Robert W. Boyle, M.D., Milwaukee
Secretary, Harriet E. Gillette, M.D., Gainesville, Fla.
Treasurer, James W. Rae, Jr., M.D., Ann Arbor, Mich.
Executive Secretary, Dorothea C. Augustin, Chicago

Also elected to serve on the Board of Governors of the American Academy of Physical Medicine and Rehabilitation for a three-year term is Herman L. Rudolph, M.D., of Reading, Pennsylvania.

* * *

Frederick G. Germuth, M.D., pathologist at the Charlotte Memorial Hospital, Charlotte, North Carolina, ad-



arlidin®

brand of nylidrin hydrochloride N.N.D.

safely increases local blood supply and oxygen where needed most... in distressed "walking" muscles for sustained, gratifying relief of pain and spasm in

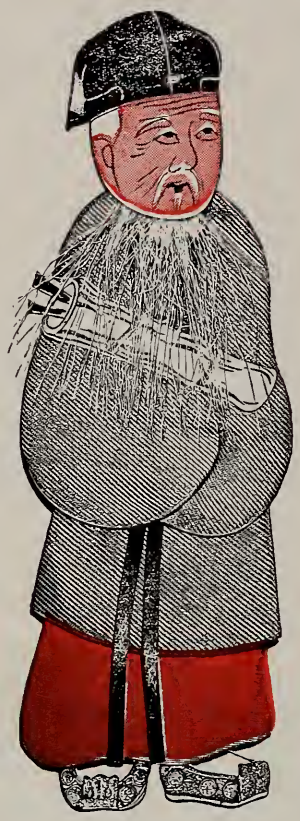
intermittent claudication of
arteriosclerosis obliterans
thromboangiitis obliterans
diabetic atheromatosis

night leg cramps
ischemic ulcers
Raynaud's syndrome
cold feet, legs and hands

Arlidin is available in 6 mg. scored tablets, and 5 mg. per cc. parenteral solution. See PDR for dosage and packaging.

Protected by U. S. Patent Numbers: 2,661,372 and 2,661,373

immortals of chinese mythology:



Chang Kuo-lao

This itinerant sage impressed the court of the Emperor by growing a new set of teeth

...this potent corticosteroid has impressed the medical profession with its repeated success in countless steroid-responsive indications

METICORTEN

METICORTEN,® brand of prednisone, 5 mg. tablets.

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

You will soon receive in your mail a full-color, handmade, three-dimensional figure of this Chinese Immortal, mounted and suitable for framing.

5-320

Schering

dressed the annual meeting of the Michigan Pathological Society on October 10 in Grand Rapids on the subject, "Hypersensitivity Diseases." Dr. Germuth, formerly associate professor of pathology at Johns Hopkins University Medical School, also conducted a seminar on problem slides of diseases related to the antigen-antibody reaction for the assembled pathologists. The meeting was held at the Pantlind Hotel.

* * *

American College of Surgeons.—At its annual session, Atlantic City, October 2, 1959, 1,015 surgeons were inducted formally as new Fellows of the American College of Surgeons in cap-and-gown ceremonies closing the annual five-day Clinical Congress of the world's largest organization of surgeons. The F.A.C.S. group, founded in 1913 to establish standards of competency and character for specialists in surgery, has grown in forty-six years' time from a founding group of 450 to a total membership of more than 23,250.

Fellowship, entitling the recipient to the designation, "F.A.C.S.," following his name, is awarded to doctors who fulfill comprehensive requirements for acceptable medical education and advanced training as specialists in one or another of the branches of surgery, and who give evidence of good moral character and ethical practice.

Those receiving this distinction from the State of Michigan at the 1959 Convocation are as follows:

Ann Arbor
Gerhard H. Bauer
William W. Coon
Louis P. Kivi
George W. Morley
Ian M. Thompson

Birmingham
John O. Esslinger
John H. McLaughlin

Coldwater
Charles R. Bacon

Dearborn
Vincent J. Marecki

Detroit
Frederick J. Fischer
Thomas M. Flake
Garnet T. Ice
John L. Kitzmiller
Sherwin J. Lutz
Donald F. Percy
Albert D. Ruedemann, Jr.
Richard E. Straith
John J. Turner
Irvin A. Wilner

Eloise
Alfred H. F. Lui

Flint
Burt A. Parliament

Grand Rapids
Samuel M. Oates
Ernest L. Overbeek
Robert N. Whittenberger

Grosse Pointe
Roger F. McNeill

Iron Mountain
David C. Peters

Kalamazoo
Frederick L. Clement
Robert H. Hume

Lansing
Thomas C. Baker
D. Bonta Hiscoe

Lincoln Park
Herbert A. Davis

Marquette
Marvin H. Schultz

Monroe
Dale W. Douglas

Owosso
James S. McGeehan

Pontiac
James W. Gell
Robert L. Segula
John R. Ylvisaker

Port Huron
Alvin N. Morris

Royal Oak
John L. Barrett

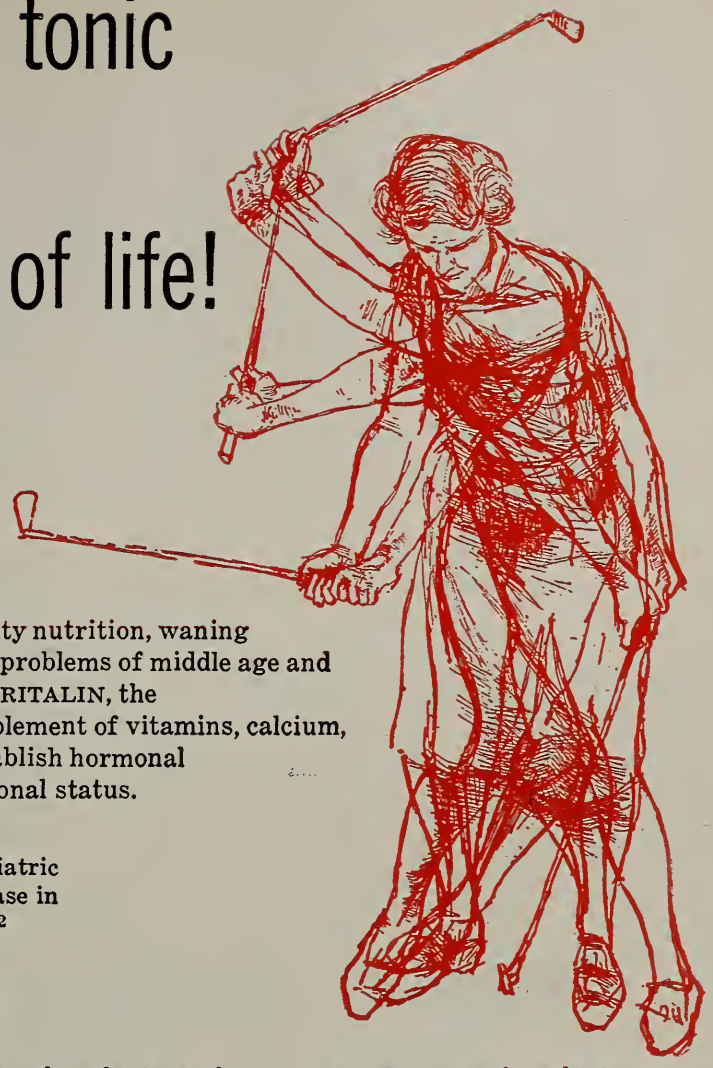
Saginaw
Edward F. Kickham
Thomas V. Kretschmer
Perry E. Prather

Traverse City
Theodore N. Cline

Ypsilanti
George S. Sayre

(Continued on Page 1906)

New revitalizing tonic brightens the second half of life!



Ritonic™

A sense of frustration and inadequacy, faulty nutrition, waning gonadal function—RITONIC meets all these problems of middle age and senile let-down. The unique combination of RITALIN, the *safe* central stimulant, with a balanced complement of vitamins, calcium, and hormones acts to renew vitality, re-establish hormonal and anabolic benefits, and improve nutritional status.

"We found Ritonic to be a safe, effective geriatric supplement . . ."[1] "Patients reported an increase in alertness, vitality and sense of well being."[2]

PRESCRIBE RITONIC

for your geriatric patients, your middle-aged patients and your postmenopausal patients.

Each Ritonic Capsule contains:

Ritalin® hydrochloride	5 mg.
methyltestosterone	1.25 mg.
ethinyl estradiol	5 micrograms
thiamin (vitamin B_1)	5 mg.
riboflavin (vitamin B_2)	1 mg.
pyridoxin (vitamin B_6)	2 mg.
vitamin B_{12} activity	2 micrograms
nicotinamide	25 mg.
dicalcium phosphate	250 mg.

Remember
SERPASIL®
(reserpine CIBA)
for the anxious hypertensive with or without tachycardia

Dosage: One Ritonic Capsule in mid-morning and one in mid-afternoon.
Supplied: Ritonic CAPSULES; bottles of 100.
References: 1. Natenshon, A. L.: J. Am. Geriatrics Soc. *6*:534 (July) 1958.
2. Bachrach, S.: To be published.
RITALIN® hydrochloride (methylphenidate hydrochloride CIBA)

CIBA SUMMIT, N. J.

3/3055MK

Say you saw it in the Journal of the Michigan State Medical Society

(Continued from Page 1902)

Professor Ferdinand E. Greifenstein, M.D., of Wayne State University College of Medicine, has accepted an invitation by the China Medical Board to become visiting professor at two Japanese medical colleges from October through December. Dr. Greifenstein, who is chairman of the department of anesthesiology at Wayne, will teach at the medical schools of Keio University and Kyushu University. On October 14, he spoke to the Japan Society of Anesthesiologists.

* * *

AMWA Fellowship Awards.—The annual awarding of fellowships in the American Medical Writers' Association was made at St. Louis on October 2, "in recognition of high qualifications, personal and professional, and of established standing as a medical writer, journalist or publisher." The Michigan recipient was Wallace H. Steffensen, M.D., of Grand Rapids.

* * *

The Detroit Dermatological Society, at its annual meeting elected the following to office for the year 1959-60:

President, Alice E. Palmer, M.D.
President-Elect, Clarence Livingood, M.D.
Secretary-Treasurer, John N. Grekin, M.D.
Recorder, Robert E. Burns, M.D.

* * *

The American College of Obstetricians and Gynecologists, District VIII (Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Alberta, British Columbia, and Hawaii) held its sixth annual meeting at the Royal Hawaiian Hotel, Honolulu, Hawaii, November 15 to 22, 1959.

The scientific program was held over four days and consisted of fifteen formal papers, twenty round tables and forty-five breakfast conferences. Two days were devoted to visits to hospitals and clinics in Honolulu.

* * *

The following lectures have been presented recently by M. K. Newman, M.D., Detroit:

1. The Problem of Whiplash Injury in Its Diagnosis and Pathogenesis and Treatment. Presented at the American Academy of Law-Science on July 12, 1959, at the Sheraton-Cadillac Hotel.
2. Rehabilitation in Pulmonary Tuberculosis. Presented at the Veterans Administration Hospital, Brecksville, Ohio, on August 24, 1959.
3. Orientation and Establishment of a Department of Physical Medicine and Rehabilitation. Presented at the Receiving Hospital at General Staff Meeting in Detroit, August 28, 1959.
4. Diagnostic Problems in Muscular Atrophy of Infants and Children. Presented by M. K. Newman, M.D., John MacHenry, M.D., and L. Olivares, at the meeting of the American Association of Alectomyography and Electrodiagnosis on August 30, 1959, at the Mayo Clinic, Rochester, Minnesota.
5. Sterilization of Electromyographic Needles, Betaprone Cold Method. Presented at the meeting of the American Association of Electromyography and Electro-

(Continued on Page 1908)

Annual Clinical Conference

CHICAGO MEDICAL SOCIETY

March 1, 2, 3 and 4, 1960

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics — Teaching Demonstrations

Medical Color Telecasts — Instructional Courses

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

"But, Doctor, I just can't swallow a lot of tablets"

"Little mother, just

ONE

BONADOXIN®

tablet stops morning sickness (you take it at bedtime)"



The formula tells why BONADOXIN quickly stops nausea and vomiting of pregnancy in 9 out of 10 cases.* Each tiny BONADOXIN tablet contains:
Meclizine HCl (25 mg.) for antinauseant action / Pyridoxine HCl (50 mg.) for metabolic replacement

More than 60,000,000 tablets prescribed and taken. Toxicity low, tolerance excellent. In bottles of 25 and 100. Usual dose: one tablet at bedtime; severe cases may require another on arising. See PDR, p. 779.

BONADOXIN also effectively relieves nausea and vomiting associated with: anesthesia, radiation sickness, Meniere's syndrome, labyrinthitis, cerebral arteriosclerosis and motion sickness.

After Baby Comes

For infant colic, try antispasmodic BONADOXIN Drops... stop colic in 7 out of 8 cases.*

Each cc. contains:
Meclizine 8.33 mg. / Pyridoxine 16.67 mg.

See PDR, p. 779.

*Bibliography available on request.

New York 17, New York • Division, Chas. Pfizer & Co., Inc. • Science for the World's Well-Being

(Continued from Page 1906)

diagnosis on August 30, 1959, at the Mayo Clinic, Rochester, Minnesota.

6. Rhythmic Centripetal Compression in the Management of Chronic Lymphedema of the Upper Extremity. Presented at the meeting of the American Congress of Physical Medicine and Rehabilitation, September 2, 1959, at the Leamington Hotel, Minneapolis, Minnesota.

* * *

The Michigan Association of Blood Banks held its fifth annual meeting at the David Whitney House, Headquarters of the Wayne County Medical Society, 1010 Antietam St., Detroit, on October 10, 1959. A number of presentations were made by Michigan People and also those from California, Massachusetts, Pennsylvania and Minnesota. A Round Table Discussion was held in the afternoon, and the meeting adjourned following a Business Meeting in the late afternoon.

* * *

Resumes Practice.—As of October 12, 1959, R. E. Nobel, M.D., 607 S. Capitol, Lansing, has resumed his practice of Psychiatry and Neurology following several months' absence due to vacation and illness.

* * *

The Second Bahamas Surgical Conference will be held December 28 to January 16 at the British Colonial Hotel, Nassau, Bahamas; and the Ninth Bahamas Medical Conference is slated for April 1 to 14, 1960, at the same Hotel.

* * *

AMA Headquarters Building in Chicago is fast taking on a new look. Extensive remodeling, redecorating and refurnishing will provide modern facilities for carrying on the activities of the AMA. All Michigan doctors are cordially invited to inspect the building whenever they are in Chicago.

* * *

In its research in connection with the Forand bill, the Indiana State Medical Association staff members visited all the nursing homes in the Hoosier state. The study revealed that private funds are financing the majority of people over 65 in Indiana's nursing homes.

* * *

The testimony made by Frederick C. Swartz, M.D., Lansing, chairman of the American Medical Association's Committee on Aging, before the United States Senate Labor and Public Welfare Committee, is printed in full in the September 26 issue of the *JAMA*, pages 431-434.

* * *

Nate S. Shapero, chairman of the board of Cunningham Drug Stores, was given a "Distinguished Service

(Continued on Page 1910)

Tested . . . and proved . . .

ORAL therapy in diaper rash!



Effective therapy! Thousands of pediatricians and general practitioners prescribe Pedameth for ammonia dermatitis—and they continue to prescribe it. Clinical tests have proved its effectiveness. Pedameth is safe because it contains only dl-methionine (0.2 Gm.) one of the essential amino acids. When Pedameth is administered, the pH of the urine is lowered and an as-yet-unknown antibacterial agent appears in the urine. Pedameth works . . . it's the safe, effective, convenient answer to ammoniacal diaper rash.

Convenient . . . simply open a capsule and add the contents to the baby's daily formula, or to fruit juice or water. No lotions . . . no rinses . . . no ointments . . . just oral therapy.

Send for samples and literature.

S. F. DURST & CO., INC.
Philadelphia 20, Pa.

Prescribe

PEDAMETH®

(dl-methionine DURST)

For the treatment of infant colic SKOPYL quickly and effectively relieves and prevents abdominal pain and distention always identified with infant colic.
Easy Administration: Just one or two drops of SKOPYL under the tongue, 20—30 minutes before each feeding — or 3 drops for an acute attack of colic.
Fast Action: The rapid absorption of SKOPYL into the blood stream via the sublingual or oral route often gives immediate and dramatic relief of acute abdominal pain characteristic of infant colic.
Effective: SKOPYL is more effective because of its selective peripheral action without influence on the central nervous system. Even when there is regurgitation and vomiting, SKOPYL is effective when administered orally or sublingually. During administration of SKOPYL, frequent, loose, and mucoid stools will become firm — often within 24 – 48 hours.
Action and Safety: The main effect of SKOPYL is peripheral. It has a particularly depressant effect on the tonus and motility of smooth musculature of the gastrointestinal tract. Because of SKOPYL's high degree of selective action and favorable therapeutic index, the recommended small volume dose can generally be given with a minimum incidence of side effects.
Indications: Colic (paroxysmal fussing, infantile dyspepsia, irritable crying), infantile vomiting, infantile diarrhea, pyloric spasm. **Precautions:** Fluid balance should be restored in dehydrated infants or those with oliguria before beginning treatment with SKOPYL. **Available:** 5 cc. dropper bottle.
One drop = 0.6 mg.; 40 drops = 1 cc.



Pharmacia Laboratories Inc., 501 Fifth Avenue, N. Y. 17, N. Y.



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX®

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

(Continued from Page 1908)

Award" by Wayne State University this fall. Wayne State President Clarence Hilberry, in making the award, announced that a new Shapero Hall of Pharmacy is on the planning board to recognize service given by Mr. Shapero in the area of health.

* * *

New York Medical College will sponsor a fifteen-day postgraduate cruise to the Caribbean, February 25 to March 10, 1960. The thirty-hour course is designed to cover both office and bedside problems of the general practitioner.

* * *

The International College of Angiology will hold its first regional meeting in Mexico City, December 29 to 30. The scientific sessions will cover arterial occlusive disease and thrombo-embolic phenomena.

* * *

Senior medical students at the University of Michigan heard Lester P. Dodd, MSMS legal counsel, speak October 14 on "Ten Easy Lessons on How to Land in Court."

* * *

In the past five years the insurance business has developed some thirty new approaches that provide more permanent health insurance protection for virtually all segments of the American public.

James R. Williams, vice-president of the Health Insurance Institute, made that statement at the fall meeting of the Accident and Health Club of New York.

Recent significant advances appear in the field of group insurance, said the speaker, with the introduction of long-term disability programs, the extension of coverage to employe groups of ten persons or less, and the expansion of health insurance plans to include retired persons.

* * *

The dean of a Canadian medical school believes that one of the major hazards threatening the quality of medical care on the North American continent today is a "preoccupation with the financial aspects of medicine."

Speaking at the Second World Congress on Medical Education, Dr. J. Wendell Macleod, dean of medicine, University of Saskatchewan, Saskatoon, Canada, observed that "even in respectable medical circles there is a preoccupation with the financial aspects of medicine." He said that one of the contributing factors to this trend is "our postwar economic prosperity with emphasis on dollar success."

* * *

Seven Michigan residents participated on the program at the AMA Midwest Regional Conference on Aging at Cleveland, Ohio, October 28 to 29. The sessions were held at Hotel Cleveland.

John S. DeTar, M.D., Milan, former speaker of the MSMS House of Delegates and past president of the American Academy of General Practice, gave the keynote address on the opening day. His speech was entitled "Medicine's Blueprint for the New Era of Aging."

Here's to your good health Always...



YOU KNOW IT'S BEST WHEN YOU GET

Sealtest
MILK AND ICE CREAM

Both CENTRAL and PERIPHERAL control of cough





SYNEPHRICOL® cough syrup

ANTITUSSIVE • DECONGESTANT • ANTIHISTAMINIC

Combines:
Central Antitussive Effect — mild, dependable
Topical Decongestion — prompt, prolonged
plus Antihistaminic and Expectorant Action

Winthrop LABORATORIES
NEW YORK 18, N. Y.

Each teaspoonful (4 cc.) contains:

Neo-Synephrine® hydrochloride	5.0 mg.
Thenfadil® hydrochloride	4.0 mg.
Dihydrocodeinone bitartrate	1.33 mg.
Potassium guaiacol sulfonate	70.0 mg.
Ammonium chloride	70.0 mg.
Menthol	1.0 mg.
Chloroform	0.02 cc.
Alcohol	8%

Bottles of 16 fl. oz.

EXEMPT NARCOTIC

Laboratory Examinations
Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY

Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE
124 West Gates Street
Romeo, Michigan

(Continued from Page 1910)

Two panels were held the first day. A. H. Hirschfield, M.D., Detroit, member of the MSMS Committee on Aging, was a member of the panel on "Status of the Senior: The Pattern Today"; while John B. Martin, Grand Rapids, chairman of the Michigan Legislative Advisory Council on Aging, was a member of the panel on "Areas for Action: Meeting Group Responsibilities."

Two Michigan doctors spoke at the afternoon session. Milton A. Darling, M.D., Detroit, MSMS president, presided over "Preparation for Living," and Frederick C. Swartz, M.D., Lansing, chairman of the AMA Committee on Aging, spoke about "Our Personal Challenge: A Realistic Approach to Aging."

Suggestions were presented the second day for improving aging programs by Miss Emilie G. Sargent, R.N., Detroit, executive director, Visiting Nurses Association.

The review of what the various midwest medical societies are doing was given the second day. The Michigan report was made by A. Hazen Price, M.D., Detroit, chairman of the MSMS Committee on Aging.

* * *

The first Congress of the Professions (the annual meeting of the Michigan Association of the Professions) will be held at the Sheraton-Cadillac Hotel, Detroit, January 22 and 23. Name speakers, leaders in professional fields and lay persons with special knowledge in fields related to the professions will highlight the programs. Plans include election of officers, unique seminars, entertainment, sociality and good fellowship. All MAP members are eligible to attend and are urged to do so.

* * *

MEDICAL TELEVISION SHOWS
Produced by Michigan Health Council

September 6, 1959—Subject: "Mental Health"—(Film—"We—The Mentally Ill")

September 13, 1959—Subject: "Safety"—(Films—"Dick Wakes Up" & "Your Safety First")

September 20, 1959—Subject: "Hearing"—(Film—"The Wall of Glass")

September 27, 1959—Subject: "MSMS Annual Session" Guests: A. E. Schiller, M.D., and James J. Lightbody, M.D., both of Detroit.

* * *

M.D. LOCATIONS—
Through September 30, 1959
Assisted by Michigan Health Council

William J. Alt, M.D.	Muskegon
A. S. Lussos, M.D.	Rochester
Henry T. Forsyth, M.D.	Chesaning

C. A. Conshus, M.D., Says . . .



A happy young lady named
Dinah

Had troubles she thought
were but minor.

Her doctor soon spied,

When he looked up inside,

A tumor upon her vagina.

Maybe you need
Hysterectomy,

Or some other sort of
Correctomy.

Let "C. A." see it quick

For you may miss a trick

If you don't get a careful
Detectomy.



POINT - Cervix - Uterus
DANGER SIGNAL - Unusual bleeding or discharge.

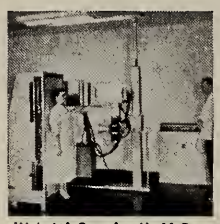
Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York


"Multi-Service" X-Ray
Unit. 300, 200, 100 Ma.

More for Your Money
in This Remarkable
Full-Wave X-Ray Unit

200-MA. UNIT FOR NO MORE THAN THE PRICE
OF COMPARABLE 100-MA. UNITS

Full Wave Rectified (4 X-Ray Valve Tubes)
Double-Focus Rotating Anode Tube
100 KVP Available at ALL Ma Settings
Fully Automatic Control
Fluoroscope-Mounted Hand-Tilt Table
Full-size 12" x 16" Fluoroscopic Screen
Choice of Floor-Rail-Mounted or Floor-to-Ceiling-Mounted Tubestand
9-Position Motor-Driven Spot Film Device Available
Motor Drive for Table Available
Two-Tube Operation if Desired
UNMATCHED in HIGH QUALITY of Design, Efficiency, Workmanship and Materials

By Comparison this Fischer Unit is the Greatest Value in the X-Ray Industry

H. G. FISCHER & CO.
OF DETROIT

21406 Fenkell Ave., Detroit 23, Michigan
Phone: KE. 7-4140

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

ELEMENTARY STATISTICS WITH APPLICATIONS IN MEDICINE AND THE BIOLOGICAL SCIENCES. By Frederick E. Croxton, Ph.D., Professor of Statistics, Columbia University. 400 pages. New York: Dover Publications, Inc., 1959. Price, $1.95.

The term, "statistics", as used in this book is very exact and specific. It refers to the methods which have been developed for working with numerical data. That actually tells the story. Frequently, the word statistics is improperly used to refer to data. Studying the book, one is impressed with the exact use of term, methods of study, the exact making of records, development of data. Various symbols are used for expressing things or working problems. A fair knowledge of mathematics is also necessary.

This book is divided into twelve chapters discussing rates, ratios, percentages, tabular and graphic presentation of data, frequency distribution, measures of central tendency, and then we get into very technical words and symbols. There are fourteen appendices covering fifty pages, ranging from the ordinates of the normal curve; areas under the normal curve; to squares, square roots, and reciprocals and logarithims and numbers.

This book is printed and designed for years of use, paper chemically treated, binding sewn in signatures, paper board binding, and prepared to receive a cloth binding. It would be extremely useful to a person interested in research and research reporting.

SYNOPSIS OF TREATMENT OF ANORECTAL DISEASES. By Stuart T. Ross, M.D., F.A.C.S., F.I.C.S., Diplomate of the American Board of Proctology; Secretary of the American Board of Proctology; Fellow and Past President of the American Proctologic Society; Fellow of the New York Proctologic Society; Fellow of the Pennsylvania Proctologic Society; Honorary Fellow of the New Jersey Proctologic Society; Corresponding Member of Sociedad Brasileira de Proctologia. Illustrated. St. Louis: The C. V. Mosby Company, 1959. Price, $6.50.

The above book is a small, compact, concise ready reference book which I feel should be of particular value for the medical student, intern, resident, and general practitioner. The principles of practices in proctology are nicely outlined, and well illustrated to guide the doctor in his diagnosis and care of the patient.

D.J.P.

THE LAW OF MEDICAL PRACTICE. By Burke Shartel, Professor of Law, University of Michigan, and Marcus L. Plant, Professor of Law, University of Michigan. Charles C Thomas, Publisher. Springfield, Illinois. U.S.A. Price $12.50.

This book presents, in understandable but scholarly terms, the basic outlines of the law as applied to the

Say you saw it in the Journal of the Michigan State Medical Society

practice of medicine. The doctor's legal relationships with patients, hospitals and other doctors and his obligations to the state, are outlined and discussed. The book also contains a primer on the legal system and a guide to the prudent doctor as witness and litigant. Well indexed and footnoted.

D.O.H.

ANESTHESIA FOR INFANTS AND CHILDREN. Robert M. Smith, M.D. Anesthesiologist, The Children's Medical Center, Boston, Massachusetts; Assistant Clinical Professor of Anesthesia, Harvard Medical School; Consultant in Anesthesia, United States Naval Hospital, Chelsea, Massachusetts; and Lemuel Shattuck Hospital, Jamaica Plain, Massachusetts. Foreword by Robert E. Gross, M.D. With 182 illustrations. The C. V. Mosby Co. 1959, St. Louis. Price $12.00.

This book presents the most complete treatise on the subject that this reviewer has found to date. If ever a book was written to cover a subject well in all its entirety, this book certainly does the job in excellent fashion. As a matter of fact, this would well be a good text for those students who might be interested in Pediatric Anesthesia. The subject matter is begun by a short discussion on the basic requirements in pediatric anesthesia followed by a good discussion of the factors determining the child's response to anesthesia and of Respiratory physiology as discussed by Dr. Charles D. Cook. The book then develops a complete story of anesthesia from the preoperative medication, choice of anesthesia, techniques, equipment used, maintenance of anesthesia, anesthesia in the various specialties, etc., to fluid therapy, complications, hypothermia, special problems and even the legal aspects. This is indeed an asset for those doing pediatric surgery, the pediatrician and the anesthetist.

J.L.

A WAY OF LIFE AND SELECTED WRITINGS OF SIR WILLIAM OSLER. July 12, 1849, to December 29, 1919 (formerly titled Selected Writings of Sir William Osler). With an introduction by G. L. Keynes, M.D., F.R.C.S. Dover Publications, Inc., New York, New York. Price $1.50.

This is a paper bound edition of the writings of Sir William Osler, stressing in this volume the interdependence of science and the humanities, and among other papers some fascinating sketches of some of the great physicians.

The price makes it within the budget of the average student.

R.W.B.

HYPERTENSIVE DISEASE, DIAGNOSIS AND TREATMENT. By Sibley W. Hoobler, M.D. Associate Professor of Internal Medicine, University of Michigan Medical School; Director of Hypertension Unit, University of Michigan Hospital. A Hoeber-Harper Book. Price $7.50.

This book deals primarily with the treatment of hypertension and the recognition of the various types to which specific regimens of therapy apply. The programs of patient management have grown largely from the author's ten years experience as Director of the Hyperten-

immortals of chinese mythology:



Lu Tung-pin

This scholarly but fierce mystic earned his place in the Taoist pantheon by slaying dragons with a magic sword

...this experience-tested steroid has earned its place in twentieth-century medicine by its unsurpassed results in acute and chronic steroid-responsive disorders

METICORTEN

METICORTEN,® brand of prednisone, 5 mg. tablets.

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

You will soon receive in your mail a full-color, handmade, three-dimensional figure of this Chinese Immortal, mounted and suitable for framing.

1-022

Schering

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

sion Unit of the University of Michigan Hospital. Methods of treatment applicable to home, office, and to hospital use are carefully detailed.

The mode of action, advantages and shortcomings of various therapeutic agents are considered. The role of surgery in the treatment of hypertension is discussed.

An outstanding feature of this practical text is the inclusion of twelve appendixes with carefully detailed instructions for clinical and laboratory tests and treatment regimens, including a section on the management of hypertensive emergencies. This is a ready source of such practical information for quick reference.

The text is well indexed and cross referenced. Short illustrative case histories add considerable interest and are incorporated throughout.

I recommend the book heartily to the practicing physician who deals with such problems. The author succeeds admirably in bringing out the essentials of a complicated subject. The book is readable and interesting.

R.W.B.

501 QUESTIONS AND ANSWERS IN ANATOMY. By Stanley D. Miroyiannis, B.S., M.A., Ph.D., F.A.A.A.S., F.I.A.S., Professor of Anatomy and Chairman of the Department, Still College. Formerly: Lecturer in Comparative History, Boston University; Professor of Vertebrate Anatomy and Chairman of the Department of Biology, Northeastern University; Professorial Lecturer in Mammalian Anatomy, Graduate School, Massachusetts College of Pharmacy; Professor of Gross Anatomy and Chairman of the Department, The New England Institute of Anatomy; Major, The Medical Service corps, Staff and faculty, 373rd General Hospital Unit; Lt. Colonel, Staff and Faculty 5904th Medical Department. 5904 School, USAR. Presently: Lt. Colonel, The Medical Service Corps, USAR; Professor of Human Gross Anatomy and Chairman of the Department, Still College, Des Moines, Iowa. With an introduction by: Ernest V. Enzmann, Ph.D., Associate Professor of Histology and Embryology, Still College. Vantage Press, New York, Washington, Hollywood. Price $5.00.

This book is published as an aid to students in their studies of Anatomy for board licensure, and Basic Science Examinations. The questions are not arranged in any systematic order and they are followed by the answer in brief outline form sufficient for the intended purpose. Standard medical texts are used for the source material.

R.W.B.

DIABETIC MANUAL. By Elliott P. Joslin, M.D., Sc.D. Clinical Professor of Medicine, Emeritus, Harvard Medical School; Formerly Medical Director, George F. Baker Clinic at New England Deaconess Hospital; Consulting Physician, Boston City Hospital; Honorary President, International Diabetes Federation; Honorary President, American Diabetes Association. President, Diabetes Foundation, Inc., 10th Ed. Illustrated. For the Patient. Lea & Febiger, Philadelphia, 1959. Price $3.75.

Dedicated to aggressive and continuous treatment with strict control of diabetes, Dr. Joslin has brought out the

(Continued on Page 1920)

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
Gordon C. Dieterich, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571



Vernor's

GINGER ALE



Developed by Michigan's First Registered Pharmacist

•

Recommended by Eminent Michigan Physicians

•

FLAVOR MELLOWED 4 YEARS IN WOOD

•

A PREFERRED BEVERAGE FOR HOME AND HOSPITAL

The Medical Supply Corp.

NOW IN THEIR NEW

ENLARGED OFFICES AND SHOWROOMS

INCREASED FACILITIES

INCREASED SERVICE

3632 Woodward Avenue

Detroit 1, Michigan

TEmple 1-4588 TEmple 1-4589



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED ®

KYNEX

Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Malpractice Prophylaxis

REASSURE—BUT DON'T
PROMISE A CURE

Specialized Service
makes our doctor safer

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively
since 1899

DETROIT Office
George A. Triplett and Richard K. Wind
Representatives
2405 West McNichols Road
Telephone University 2-8064

(Continued from Page 1918)

tenth edition of his manual for the diabetic patient. Supporting his belief that education of the patient is the most important factor in successful diabetic control, this revision brings the famous manual up to date with a discussion of current advances in the various phases of the subject. Oral hypoglycemic agents are discussed and Dr. Joslin's comments on them are presented.

This 304-page well-bound and well-illustrated manual is a "must" for the well informed diabetic patient at a nominal price.

R.W.B.

A COOKBOOK FOR DIABETICS. Recipes from the ADA Forecast. By Deaconess Maude Behrman, published by the American Diabetes Association, edited by Leonard Louis Levinson. Copyright 1959 by The American Diabetes Association, Inc., 1 East 45th Street, New York 17, N. Y. Price $1.00.

This cook book is quite elaborate. It is spirally bound so that the pages lay flat. It contains unit values of various foods with the substitutes which can be used for them, also expressed in units so that many variations can be made. There are some tables and lists of things that can be exchanged one for the other showing the values and the weights and the amounts to be used for each unit. The doctor is to prescribe the number of units of various foods which will make up the patient's diet. There is a section on sugar substitutes, on calories and vitamins and minerals, flavoring. Several pages of detailed breakfasts in which the foods to be used are listed above the amount and the weight and then detailed methods of preparation. The same sort of a section is there for luncheons and supper, one dish meals, meals on salads, preparation of cheeses, chicken and everything else—about 160 pages with a very complete index. A very handy book for the person who is cooking for a diabetic or for the diabetic who is cooking for himself. This book is produced by the American Diabetes Association. There is a reduction in price if purchased in numbers. This is a very handy little book, pocket size, well printed, extremely well illustrated and clear discussions of the conditions mentioned. It is quite complete and up to date.

SYNOPSIS OF EAR, NOSE AND THROAT DISEASES. Robert E. Ryan, B.S., M.D., M.S. (ALR), F.A.C.S. Department of Otolaryngology, St. Louis University School of Medicine; Associate Otolaryngologist, St. John's Hospital, St. Louis; Assistant Otolaryngologist, Cardinal Glennon Hospital for Children and St. Louis University Group of Hospitals, St. Louis; Diplomate, American Board of Otolaryngology; Former Fellow of Mayo Clinic, Rochester, Minnesota. William C. Thornell, A.B., B.M., M.D., M.S. (ALR), F.A.C.S. Assistant Professor, Department of Otolaryngology, Cincinnati College of Medicine, University of Cincinnati; Staff Member, Cincinnati General Hospital, Good Samaritan Hospital, Deaconess Hospital, St. Francis Hospital, and St. Mary's Hospital, Cincinnati; Diplomate, American Board of Otolaryngology; Former Fellow and Member of the Staff of Mayo Clinic, Rochester, Minnesota. Hans von Leden, M.D., F.A.C.S., F.I.C.S., Assistant Professor of Otolaryngology, Northwestern University Medical School, Chicago;



Cough Control

. . . combined with Phagocytic stimulation

USE AQUEOUS GUAIAFAGE

rapidly effective in all upper-respiratory infections where ventilation by expectoration is necessary available only in 30 cc vials.

MEYER & COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE . ST. CLAIR SHORES, MICH.

Associate Professor of Otolaryngology, Cook County Graduate School of Medicine, Chicago; Medical Director, The William and Harriet Gould Foundation, Chicago; Attending Otolaryngologist, Chicago Wesley Memorial Hospital and Cook County Hospital, Chicago, and St. Francis Hospital, Evanston, Ill.; Consultant in Otolaryngology, United States Naval Hospital, Great Lakes, Ill.; Diplomate, American Board of Otolaryngology; Former Fellow of Mayo Clinic, Rochester, Minn. St. Louis, Illustrated, The C. V. Mosby Co. 1959. Price $6.75.

Most of the common ailments covered by the specialty of ear, nose and throat are quite clearly described and outlined.

ANATOMY OF THE HUMAN BODY. By Henry Gray, F.R.S., Late Fellow of the Royal College of Surgeons; Lecturer on Anatomy at St. George's Hospital Medical School, London. 27th ed. Edited by Charles Mayo Goss, M.D., Managing Editor of the Anatomical Record; Professor of Anatomy, Louisiana State University School of Medicine, New Orleans, Louisiana. 1174 Illustrations mostly in color. Lea & Febiger, Philadelphia, 1959. Price $17.50.

Gray's Anatomy for 1959, is in its centennial publication year in America, the original being published in England in 1858. This edition is probably the most outstanding and ambitious ever made. It is heavy (1450 pages) with easily readable print and wonderful illustrations. The student is offered every convenience of paper, type, etc. This work is standard and has been studied by our grandfathers and great-grandfathers. Before this present edition there were 572,500 copies printed which would make a pile twenty-four miles high. We have been happy to read many sections and find everything complete and up to the minute. This is a wonderful item for the student and the practitioner as well—as it always has been.

THE MODERN FAMILY HEALTH GUIDE. Edited by Morris Fishbein, Formerly Editor, Journal of the American Medical Association; Editor, Exerpta Medica; Medical Editor, Britannica Book of the Year. Contributing Specialists: Harry Bakwin, Ruth Morris Bakwin, Frank A. Calderone, A. C. Corcoran, John M. Cotton, Edwin J. DeCosta, Sol T. Delee, Benjamin M. Gasul, John R. Heller, Horace L. Hodes, Lewis M. Josephson, Charles H. Lawrence, Vurrier McEwen, George J. Mohr, Milton M. Mosko, John B. O'Sullivan, Irvin H. Page, Carl J. Potthoff, Charles Rein, Mortimer Spiegelman, Gene H. Stollerman, Carl D. Strouse, Stanley E. Telser, Hart E. Van Riper, Samuel Weiss. Doubleday & Company, Inc., Garden City, New York. Price $7.50.

In his new Health Guide, Doctor Fishbein has actually produced two books in one binding. The first section is divided into ten parts, each of which is contributed by a listed corps of contributors: Family Health, Infancy and Childhood, Your Heart, Major Disease Conditions, The Digestive System, Other Important Disorders, Mind and Nervous System, Later Years, Medical Statistics, and First Aid. The second book of 160 pages is a medical encyclopedia with alphabetical listing and very inclusive. This part is thumb indexed.

AIDS TO ARITHMETIC IN NURSING. William C. Fream, S.R.N., B.T.A. Cert. (Hons.), S.T.D. (London), Male Tutor, N. Nigeria. Formerly Male Tutor, Federal Government of Nigeria and Tutor in Sole Charge, Highwood Hospital for Children, Brentwood, Essex. Second Edition. London. Bailliere, Tindall and Cox, 7 and 8 Henrietta Street, W.C. 2, 1959. Price $2.25.

This is a small, pocket size book, printed in clear type on good paper. It is a textbook on arithmetic as applied to nurses. The chapters are devoted to fractions, what they are and their simplification. This book is printed in England and has not been readjusted to American usage. On page 4, introducing fractions, it says "we all know there are twenty ounces in a pint." Not in America. They were of course referring to imperial measure. Diagrams, mathematical formula, methods, etc., are given full attention. The book is handy and useful.

BOOKS RECEIVED

DISEASES OF THE NERVOUS SYSTEM. Described for Practitioners and Students by Sir Francis Walshe, M.D., D.Sc., F.R.S. Fellow of the Royal College of Physicians of London; Fellow of University College, London; Consulting Physician to University College Hospital and to the National Hospital for Nervous Diseases, Queen Square. With Chapters on The Neurological Complications of Liver Disease and Hepatolenticular Degeneration by J. M. Walshe, M.R.C.P. Assistant Director of Research, Department of Experimental Medicine, Cambridge University. Ninth Edition. Baltimore: The Williams and Wilkins Company, 1958. $8.00.

POLIOMYELITIS. Papers and Discussion presented at the Fourth International Poliomyelitis Conference, compiled and edited for the International Poliomyelitis Congress. Philadelphia and Montreal: J. B. Lippincott Company, 1959. Price, $7.50.

EPILEPSY. By Manfred Sakel, M.D. With a Preface by Otto Poetzl, Professor Emeritus, University and Clinic of Vienna. New York: Philosophical Library, 1959. Price, $5.00.

CIBA FOUNDATION SYMPOSIUM ON THE NEUROLOGICAL BASIS OF BEHAVIOR. In commemoration of Sir Charles Sherrington, O.M., G.B.E., F.R.S., 1957-1958. Editors for the Ciba Foundation G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. 109 illustrations. Boston: Little, Brown and Company, 1959. Price, $9.00.

RADIOACTIVE FALLOUT—A TWO-YEAR SUMMARY REPORT. By Charles L. Dunham, M.D., Director, Division of Biology and Medicine. Prepared for presentation at the Hearings on Fallout before the Joint Committee on Atomic Energy, May 5-8, 1959. Technical Information Service. Washington 25, D. C.: Office of Technical Services, Department of Commerce, 1959. Price, $1.25.



provides therapeutic levels . . . for 24 hours . . .
with low incidence of sensitivity reactions . . .
WHENEVER SULFAS ARE INDICATED
KYNEX
Sulfamethoxypyridazine Lederle
0.5 Gm. TABLETS/NEW ACETYL PEDIATRIC SUSPENSION
LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Invest in

U. S.

Government

Bonds



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

SIGN OF GOOD TASTE©

THE PROBLEM OF EXCESS TUBERCULOSIS BEDS IN MICHIGAN

(Continued from Page 1834)

four state tuberculosis sanatoria have had surplus capacity for some time and have just this year received permission to accept non-tuberculous individuals in their institutions. Under the pressure of those interested in mental health, provision has been made for the care of mental patients mostly of the imbecile type who need nursing care and forced feedings. Experience with such patients in these institutions has not been sufficient to warrant any conclusions. It would appear, however, that the per diem cost will be much higher than in the usual mental institutions or nursing homes.

The prospects for further consolidation and mixing of patients in tuberculosis institutions seems highly probable. The type of patient best suited for this care is yet to be determined, although the experience of county institutions suggests that chronically ill patients may be most suitable. In the meantime, it should be mentioned that the role of the sanatorium in the care of tuberculosis is by no means eliminated. The vast majority of newly diagnosed cases occur among people who come from the lowest economic group and cannot afford other care. Furthermore, except for the most favorable cases of tuberculosis, the hospital facilities are needed to control the patient's clinical course with adequate laboratory observation, and for such health education as may seem appropriate. Surgery, which is a necessity in at least ten per cent of the patients and probably more, must be done in the properly equipped hospital or sanatorium. Finally, some patients fail to recover from tuberculosis and require prolonged hospitalization and isolation if this disease is to be controlled. This the sanatorium provides.

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

FOR RENT—Three-room suite in new medical building. Location ideal—one hour from the heart of Detroit—One G.P., who is also interested in helping with Industrial Medicine as a relief man. Up and growing community. For further details, contact: W. C. Gibson, M.D., 216 East Commerce St., Milford, Michigan. Phone Milford, MUtual 4-6775 and 4-6771.

EXCELLENT OPPORTUNITY for associate in general practice. New two-man clinic in town of 10,000. 80-bed hospital. Salary open, depending on training and experience. Reply Box 15, 606 Townsend St., Lansing, Michigan.

FOR SALE: Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Contact: Box No. 8, 606 Townsend Street, Lansing, Michigan.

FOR RENT—Dental office in clinic with one M.D., vicinity of Gratiot and Six Mile Road, Detroit. Reasonable. Tuxedo 1-1571.

In Lansing

HOTEL OLDS

Fireproof

400 ROOMS

PRACTICE FOR SALE—27-year-old practice of deceased physician including x-ray equipment, instruments, medicines and file of completed case histories. Medical services needed in this area of Roscommon, Michigan. Contact: Marion E. Martzowka, Roscommon, Michigan.

MEDICAL PRACTICE in Lansing area, suitable for young doctor, good hospitals within ten miles, good schools and churches. Price includes real estate with over $200 monthly income and office for doctor. Owner retiring due to health and age. Low down payment. Contact: Guernsey, IV 2-1637, 1516 E. Michigan Ave., Lansing, Michigan.

WANTED—Woman associate. Woman's General Practice in Southern Michigan. Established forty-one years. Unlimited opportunity in active community of 10,000. Write: Box No. 22, 606 Townsend Street, Lansing, Michigan.

FOR SALE: Lucrative general practice home-office combination located in rich farming and resort area. Good swimming, fishing and hunting. Office equipment, records, ample drugs and additional lot included. Grossed over $43,000 last year. Owner leaving for residency January 1, 1960. Price $25,000 with $5,000 down. Write: Box 21, 606 Townsend Street, Lansing 15, Michigan.

PHYSICIANS WANTED

GENERAL PRACTICE RESIDENCY—Fully accredited by JCAH. Staffed by Clinic Group closely associated with Hospital. Only graduates of approved Medical Schools or E.C.F.H.G. Certified will be considered. Salary, $6,000 yearly. Positions available January 1, 1960, and July 1, 1960. Contact: Director, The Lynn Hospital, Detroit, Michigan.

GENERALIST—For Association with Clinic and Hospital Group. To head active emergency service of fully approved JCAH Hospital. Salary open; annual increments; bonuses; vacations; etc. Contact: Director, The Lynn Hospital, Detroit, Michigan.



MARY POGUE SCHOOL, Inc.

Founded 1903. Complete facilities for training retarded and epileptic children educationally and socially. Pupils per teacher strictly limited. Excellent educational, physical and occupational therapy programs.

Varied group activities under competent direction on our spacious grounds of 28 acres. Selected movies.

Separate buildings for boys and girls, each with round-the-clock supervision of skilled personnel. Total enrollment 90.

G. H. Marquardt, M.D. *Medical Director*

Barclay J. MacGregor, B.S. *Registrar*

26 GENEVA ROAD, WHEATON, ILLINOIS

(near Chicago)

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 DECEMBER, 1959 NUMBER 12

Contributors to This Issue



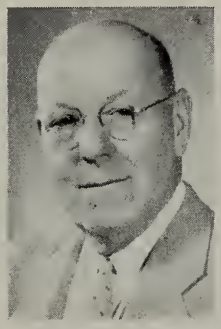
F. J. Ayd, Jr., M.D.



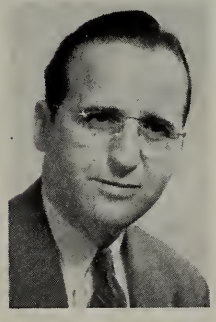
H. L. Bockus, M.D.



A. J. Elliot, M.D.



C. H. Ross, M.D.



C. Sower, Ph.D.



H. J. VandenBerg, M.D.



R. F. Weyher, M.D.

Table of Contents

Putting Psychiatry Back into Medicine
Frank J. Ayd, Jr., M.D. 1987

Functional Disorders of the Digestive Tract
H. L. Bockus, M.D. 1990

Lesions of the Macula and Perimacular Region of Involutional and Senile Origin
A. J. Elliot, M.D. 2002

Bromism, A Menace
Russell F. Weyher, M.D. 2007

The Dynamics of Geriatrics
C. Howard Ross, M.D. 2013

Atherosclerosis versus Inherited "Iron and Copper Pipes"
Henry J. VandenBerg, M.D. 2026

Learning to Live in the Community
Christopher Sower, Ph.D. 2028

President's Page
Aging—A Community Responsibility 2036

Editorial
The House of Delegates Comes Through..... 2035
Relative Value Study 2037
Kenneth H. Johnson, M.D., President-Elect.... 2037
Which Path to Medical Security?..... 2038
Symbols on September Cover 2038
Misrepresentation 2038
New Registration Law Controls Psychologists.... 2039
Nineteen Fifty-nine 2039

Plan Congress of the Professions, January 2039
What They Said About the 1959 Annual Session 2040
Highlights of Annual Sessions 2041
Obstetrical Brevets 2047
Building Report No. 5 2048
Michigan MD Split Averted by Shield Plan Agreement 2050
Michigan Clinical Institute—Information and Program 2051
Michigan's Department of Health 2062
In Memoriam 2064
News Medical 2070
The Doctor's Library 2101
Index to Volume 58 2105
C. A. Conshus, M.D. Says 2118

Cancer Comment 1938
Medical Groups Attack Problem of Aged Patient 1940
PR Report 1948
Communication 1952
You and Your Business 1962
Medical Meetings and Clinic Days 1964
State Medical Journal Editors' Conference 1966
AMA Washington Letter 1970

© 1959 by Michigan State Medical Society

THE JOURNAL
of the Michigan State Medical Society

VOLUME 58 DECEMBER, 1959 NUMBER 12

PUBLICATION COMMITTEE

BRADLEY M. HARRIS, M.D., *Chairman*.....Ypsilanti
WM. BROMME, M.D.....Detroit
H. J. MEIER, M.D.....Coldwater
E. S. OLDHAM, M.D.....Breckenridge
C. N. HOYT, M.D.....Port Huron
O. J. JOHNSON, M.D.....Bay City

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Assistant Editor
L. J. BAILEY, M.D.
Medical Concourse, Northland Center, Detroit 35, Michigan

Secretary and Business Manager of THE JOURNAL
D. BRUCE WILEY, M.D.
45310 Van Dyke, Utica, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 2-1158.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Second class postage paid at Saint Paul, Minnesota.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage: Canada $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

© 1959 by Michigan State Medical Society
PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1959-1960

President.....MILTON A. DARLING, M.D.....Detroit
President-Elect.....K. H. JOHNSON, M.D.....Lansing
Secretary.....D. BRUCE WILEY, M.D.....Utica
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....J. J. LIGHTBODY, M.D.....Detroit
Vice Speaker.....H. F. FALLS, M.D.....Ann Arbor

THE COUNCIL

A. E. SCHILLER, M.D., *Chairman*, Detroit
T. P. WICKLIFFE, M.D., *Vice Chairman*, Calumet
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		*Term Expires*
A. E. SCHILLER, M.D.	1st	Detroit	1961
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
H. J. MEIER, M.D.	3rd	Coldwater	1960
WM. A. SCOTT, M.D.	4th	Kalamazoo	1961
C. ALLEN PAYNE, M.D.	5th	Grand Rapids	1961
H. H. HISCOCK, M.D.	6th	Flint	1961
C. N. HOYT, M.D.	7th	Port Huron	1962
E. S. OLDHAM, M.D.	8th	Breckenridge	1962
D. G. PIKE, M.D.	9th	Traverse City	1962
O. J. JOHNSON, M.D.	10th	Bay City	1962
W. M. LEFEVRE, M.D.	11th	Muskegon	1963
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1963
T. P. WICKLIFFE, M.D.	13th	Calumet	1963
B. M. HARRIS, M.D.	14th	Ypsilanti	1964
R. J. MASON, M.D.	15th	Birmingham	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. W. BABCOCK, M.D.	17th	Detroit	1963
WILLIAM BROMME, M.D.	18th	Detroit	1964

MILTON A. DARLING, M.D.....*President*.....Detroit
K. H. JOHNSON, M.D.....*President-Elect*.....Lansing
J. J. LIGHTBODY, M.D.....*Speaker*.....Detroit
H. F. FALLS, M.D.....*Vice Speaker*.....Ann Arbor
D. BRUCE WILEY, M.D.....*Secretary*.....Utica
W. A. HYLAND, M.D.....*Treasurer*.....Grand Rapids
G. B. SALTONSTALL, M.D.....*Past President*.....Charlevoix

EXECUTIVE COMMITTEE OF THE COUNCIL

A. E. SCHILLER, M.D.....Chairman
T. P. WICKLIFFE, M.D.....Vice Chairman
W. M. LEFEVRE, M.D.....Chairman, County Societies Committee
B. M. HARRIS, M.D.....Chairman, Publication Committee
O. B. McGILLICUDDY, M.D.....Chairman, Finance Committee
J. J. LIGHTBODY, M.D.....Speaker
H. F. FALLS, M.D.....Vice Speaker
MILTON A. DARLING, M.D.....President
K. H. JOHNSON, M.D.....President-Elect
D. BRUCE WILEY, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Dermatology and Syphilology
Robert H. Grekin, M.D.....Kalamazoo
Chairman
Alice E. Palmer, M.D.....Detroit
Secretary

Gastroenterology and Proctology
Lyle Heavner, M.D.....Detroit
Chairman
George T. Bradley, M.D.....Detroit
Secretary

General Practice
C. W. Royer, M.D.....Battle Creek
Chairman
J. M. McGough, M.D. .....Detroit
Secretary

Gynecology and Obstetrics
Warren R. Moore, M.D.....Detroit
Chairman
Charles M. Bell, M.D.....Grand Rapids
Secretary

Medicine
G. T. McKean, M.D.....Detroit
Chairman
J. J. Lightbody, M.D.....Detroit
Secretary

Nervous and Mental Diseases
S. M. Gould, Jr., M.D.....Ann Arbor
Chairman
R. A. Jaarsma, M.D.....Flint
Secretary

Occupational Medicine
T. I. Boileau, M.D.....Birmingham
Chairman
William Jend, Jr., M.D.....Detroit
Secretary

Ophthalmology and Otolaryngology
F. A. Barbour, M.D.....Flint
Chairman (Ophth.)
Harold F. Schuknecht, M.D.....Grosse Pointe
Co-Chairman (Oto.)
Paul L. Cusick, M.D.....Detroit
Secretary (Ophth.)
J. E. Magielski, M.D.....Ann Arbor
Co-Secretary (Oto.)

Pediatrics
Howard T. Knobloch, M.D.....Bay City
Chairman
John L. Doyle, M.D.....Grand Rapids
Secretary

Public Health and Preventive Medicine
H. B. Robins, M.D.....Ann Arbor
Chairman
L. V. Burkett, M.D.....Flint
Secretary

Radiology, Pathology, Anesthesiology
Viola G. Brekke, M.D.....Highland Park
Chairman (Path.)
Bernard S. Kalayjian, M.D.....Detroit
Vice Chairman (Rad.)
G. C. Frederickson, M.D.....Detroit
Secretary (Anes.)

Surgery
C. D. Benson, M.D.....Detroit
Chairman
E. A. Osius, M.D.....Detroit
Secretary

Urology
William Bromme, M.D.....Detroit
President
Harry E. Lichtwardt, M.D.....Birmingham
Secretary-Treasurer

DELEGATES TO A. M. A.

Delegates

	Term Expires
W. D. Barrett, M.D., Detroit	1960
R. L. Novy, M.D., Detroit	1960
G. W. Slagle, M.D., Battle Crook	1960
W. A. Hyland, M.D., Grand Rapids	1961
J. S. DeTar, M.D., Milan	1961
C. I. Owen, M.D., Detroit	1961
O. J. Johnson, M.D., Bay City	1961

Alternates

	Term Expires
L. R. Leader, M.D., Detroit	1960
Wm. Bromme, M.D., Detroit	1960
J. R. Heidenreich, M.D., Daggett*	1960
W. W. Babcock, M.D., Detroit	1961
G. B. Saltonstall, M.D., Charlevoix	1961
J. M. Wellman, M.D., Lansing	1961
B. M. Harris, M.D., Ypsilanti	1961

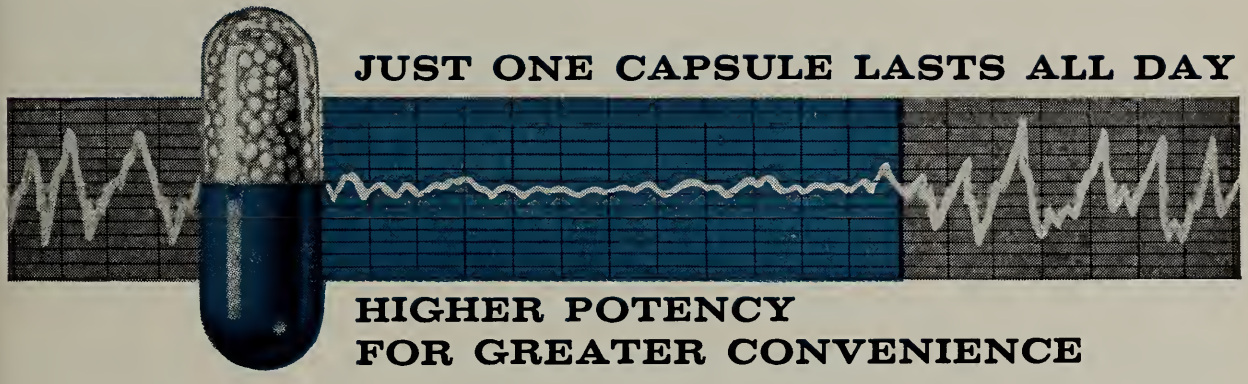
*To fill unexpired term of R. W. Shook.

NEW AND EXCLUSIVE

FOR SUSTAINED TRANQUILIZATION

MILTOWN® (*meprobamate*) now available in 400 mg. continuous release capsules as

Meprospan®-400



JUST ONE CAPSULE LASTS ALL DAY

HIGHER POTENCY FOR GREATER CONVENIENCE

- relieves *both* mental and muscular tension without causing depression
- does not impair mental efficiency, motor control, or normal behavior

Usual dosage: One capsule at breakfast, one capsule with evening meal

Available: *Meprospan-400*, each blue capsule contains 400 mg. Miltown (meprobamate)
Meprospan-200, each yellow capsule contains 200 mg. Miltown (meprobamate)

Both potencies in bottles of 30.

®WALLACE LABORATORIES, *New Brunswick, N. J.*

CME-8426

Cancer Comment

This column is sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan

WHAT IS THE MCCC?

The Michigan Cancer Coordinating Committee was formed in 1953 to unify and help advise the several individual agencies in the state whose efforts are directed toward the control and eventual elimination of Carcinoma.

The Committee is composed of representatives of the following groups:

American Cancer Society, Michigan Division.—L. E. Holly, M.D., C. Allen Payne, M.D., and Mr. Russell E. Bowers.

American Cancer Society. Committee for Southeastern Michigan.—H. M. Nelson, M.D.

Michigan Cancer Foundation.—Mr. Charles F. Arnold.

Michigan Department of Health.—John A. Cowan, M.D.

Michigan Health Officers Association.—Ralph Tenhave, M.D.

Michigan State Dental Association.—B. E. Luck, D.D.S.

Michigan State Medical Society.—H. M. Pollard, M.D., G. S. Wilson, M.D., J. W. Hubly. M.D., and W. A. Hyland, M.D.

Mr. William Burns of the Medical Society acts as Secretary for the Committee.

Meetings are held as often as required, usually three or four times a year, either in Lansing or Detroit.

Two of the operations which the committee has sponsored are the Anti-Quackery program and the re-organization and stimulation of the Michigan Central Cancer Registry. You have, no doubt, seen the Anti-Quackery exhibits and literature distributed by the committee. The demand for the literature has exceeded, by many times, our original expectations.

The Michigan Central Cancer Registry was established as an aid to professional education and research, but has been expanded by additional services and functions to a total Registry program. With the opportunity to stimulate and serve the research programs, the cytology and cancer detection programs, as well as the hospital cancer registry program of the state, the Michigan Central Cancer Registry represents a potential cancer control facility that is unequalled anywhere in the United States today.

The MCCC is an effective combination of groups that are basically organized for service, and those best fitted to give professional advice and technical direction to the activities.

Thus, we have the American Cancer Society and the Michigan Cancer Foundation equipped and staffed to raise funds and to provide services such as public education, free dressings, and volunteer help in all of the Field Activities.

Working hand-in-hand are the Professional Groups—the Michigan Department of Health, the Michigan Health Officers Association, and the State Dental and Medical Societies—to constantly check the progress and direction of the work and to point out where it can be made more effective or suggest new forms of activity when the need arises.

Another important function of the Professional Group is the direction of work on professional education, providing speakers for local medical society meetings and material prepared at the professional level. In fact, since the MCCC has been organized it has practically taken over the activities of the Cancer Committee of the Michigan State Medical Society.

Also on the Committee are a few lay members —specialists in the non-medical professions, and businessmen whose outside contacts and broad experience may be drawn upon for help on special problems.

This then is the Michigan Cancer Coordinating Committee. Keep it in mind and do not hesitate to contact it if it can be of help. The Committee would appreciate having any suggestions or opportunities to make its work more effective or extensive. It is at your service—use it.

COLON CARCINOMA

Carcinoma of the colon is most commonly found between the ages of fifty and seventy with a slightly higher incidence in the male than in the female. The site most frequently involved, exclusive of the rectum which has the highest frequency, is in the recto-sigmoid and the sigmoid colon. The other areas involved in descending order of frequency are cecum, transverse, ascending and descending colon. The two flexure areas show about the same frequency as the descending colon.

When we appreciate the fact that sixty per cent of all colon malignancies occur in the lower sigmoid and rectum, the physician is faced with a very grave responsibility in the early diagnosis. The rectal carcinomas are diagnosed readily by digital examination and the use of the sigmoidoscope. No physical examination of any type is complete without at least a digital rectal examination.

The diagnosis of lesions above the rectum is best made by sigmoidoscopy and barium enema studies under fluoroscopic control.

(Continued on Page 1966)

whenever there is inflammation, swelling, pain

VARIDASE

STREPTOKINASE-STREPTODORNASE LEDERLE

BUCCAL

Tablets

conditions for a fast comeback



as in episiotomy

VARIDASE Buccal provides a simple, natural way to faster, early healing. By activating the fibrinolytic enzymes responsible for normal recovery, VARIDASE shortens the catabolic phase of host response and reverses inflammatory reaction. Edema is reduced.

VARIDASE is not an anti-infective, but by increasing the permeability of the fibrin wall, it eases penetration of natural regenerative factors and fosters healthy tissue growth, making infection less likely.

VARIDASE Buccal Tablets contain: 10,000 Units Streptokinase and 2,500 Units Streptodornase.

Supplied: Boxes of 24 and 100.

Lederle

LEDERLE LABORATORIES,
a Division of American Cyanamid Co.,
Pearl River, New York

Medical Groups Attack Problem of Aged Patient

By Peter J. Baker, *Michigan State University*

The growing problem of medical care for the aged is recceiving increased attention from medical and social groups, according to a Michigan State Medical Society official.

A. Hazen Price, M.D., of Detroit, chairman of the MSMS Geriatrics Committee, told the Nursing Home Administrators Conference at Michigan State University that our elderly sick certainly deserve better treatment than they have received in the past.

"The older citizens have contributed much through their ingenuity and diligence," he said. "We owe it to them to do everything possible to lessen their burden of illness."

Doctor Price pointed out that the American Medical Association had taken the initiative in 1957 in the formation of the Joint Council to Improve the Health Care of the Aged. Co-operating in this venture are the American Dental Association, the American Hospital Association, and the American Nursing Home Association.

The Joint Council is presently working on an active and aggressive program designed to meet the pressing health needs of our senior citizens.

One phase of this program concerns the expansion and improvement of health care facilities for the aged through the establishment of standards for nursing homes, procuring of more funds for chronic disease units and work with the legislators.

Another urgent need concerns the expansion of community health services for the aged, Doctor Price stated. Possibilities in this field include dental service in the home, visiting nurse services and various homemaker services.

The third phase of this program lies in providing proper care for the aging who are mentally ill. He declared that, under proper supervision, many cases could be handled in foster homes rather than in overcrowded mental institutions.

Doctor Price said the next major objective being sought by the council is improved voluntary health insurance for older people. Coverage for aging citizens is now being developed and presently covers about six million persons over sixty-five years of age. He quoted estimates which predicted that 90 per cent of persons over sixty-five will be covered by this type of insurance by 1970.

The speaker pointed out that the scope of the problem is steadily increasing. Twenty years have been added to the American's life expectancy since 1900, he noted. The number of persons in the sixty to eighty bracket has quadrupled in that period, while the overall population has only doubled.

Dr. Price declared that with the use of new drugs and techniques, the life expectancy will be extended even farther. However the extra years simply add to the patient's economic and sociological problems.

The speaker suggested that city planners could help in this program by providing proper housing and recreational facilities; industry and labor could help by employing the older worker as long as he is able to work; churches could help by sponsoring various activity groups; and schools could provide adult education and instruction in the crafts.

Established 1924

MERCYWOOD SANITARIUM

Conducted by Sisters of Mercy

Treatment for Emotional and Mental Disorders

Medical Staff
Robert J. Bahra, M.D.
Dean P. Carron, M.D.
Francis M. Daignault, M.D.
Gordon C. Dieterich, M.D.
Stuart M. Gould, Jr., M.D.
Leonard E. Himler, M.D.
Stephen C. Mason, M.D.

JACKSON ROAD
ANN ARBOR, MICHIGAN
NOrmandy 3-8571

Blood pressure after Apresoline-Esidrix:

182/98 mm.Hg*

Added benefits: Lowered dosage requirements, fewer side effects • Improved renal blood flow • Relaxed cerebral vascular tone • Excellent diuresis in decompensated cases

SUPPLIED: Apresoline-Esidrix Tablets (orange), each containing 25 mg. of Apresoline hydrochloride and 15 mg. of Esidrix; bottles of 100.

*Response of 56-year-old female patient noted in clinical report to CIBA.

APRESOLINE® hydrochloride (hydralazine hydrochloride CIBA) / ESIDRIX® (hydrochlorothiazide CIBA)

Apresoline-Esidrix®

Combination Tablets

POTENTIATED ANTIHYPERTENSIVE FOR ADVANCING HYPERTENSION



CIBA

SUMMIT, NEW JERSEY

1/2746 MK

PR REPORT



"Ten seconds to air time." Everyone is ready for the signal from the director just before the show began in the WOOD-TV studios at Grand Rapids. More pictures on opposite page.

McNamara Hearings Explore Status of Michigan's Aging

Authorities, pseudo-authorities, and others interested in the current status and future of Michigan's over-65 population, testified before a touring Senate Committee chaired by Senator Pat McNamara (D-Mich.). Hearings were held in Grand Rapids on November 16-17 and in Detroit in mid-December. Other hearings were held in various parts of the nation.

Testimony was presented by spokesmen for medicine, labor, industry, hospitals, nurses, religion and the oldsters themselves.

The viewpoint of medicine was expressed by doctors of medicine who appeared on behalf of MSMS and the Kent and Wayne County Medical Societies.

No conclusions were reached by the Senate Committee. Chairman McNamara said the Committee was attempting to assess the problem with an eye to possible drafting of federal legislation in the 1960 session of Congress.

Third "Family Doctor" Show Produced in Grand Rapids

A special live MSMS television production, "The Family Doctor," was seen by western Michigan TV viewers on October 18 over WOOD-TV, Grand Rapids. By special arrangement the show was carried simultaneously over WPBN-TV, Traverse City.

This was the third of four planned productions of The Family Doctor. The first show was presented in Detroit during the 1958 Annual Session and the second in April, 1959, over WKZO-TV, Kalamazoo.

A fourth local production is planned within the next few months over another outstate TV station.

Outstate productions were recommended by the MSMS PR Committee in order to provide county medical societies within television reception areas with a locally oriented public relations vehicle.

The series is being produced by the Michigan State Medical Society, the Michigan Health Council, and the local county medical society.

Cooperating in the third project was the Kent County Medical Society and WOOD-TV which carried the one-hour program as a public service.

For this show, the TV studios were transformed into a doctor's office by use of equipment provided by the Medical Arts Supply Company of Grand Rapids.

The program dramatized the facilities and services that are obtainable in a modern doctor's office. Several examinations and surgical procedures were performed including a complete physical examination with history.

John R. Pedden, M.D., Grand Rapids, gave a running scientific commentary, and Alex Dillingham, of WOOD-TV, served as announcer-moderator.

Participants in "The Family Doctor" were:

(Continued on Page 1952)



. . . Additional photos from the special live television MSMS production "The Family Doctor" presented over WOOD-TV at Grand Rapids. At left, Nurse Brunger assists James W. Logie, M.D., as he removes a lipoma from the arm of a patient.



Scientific Commentator John R. Pedden, M.D., center, discusses a point with announcer-moderator Alex Dillingham of WOOD-TV.

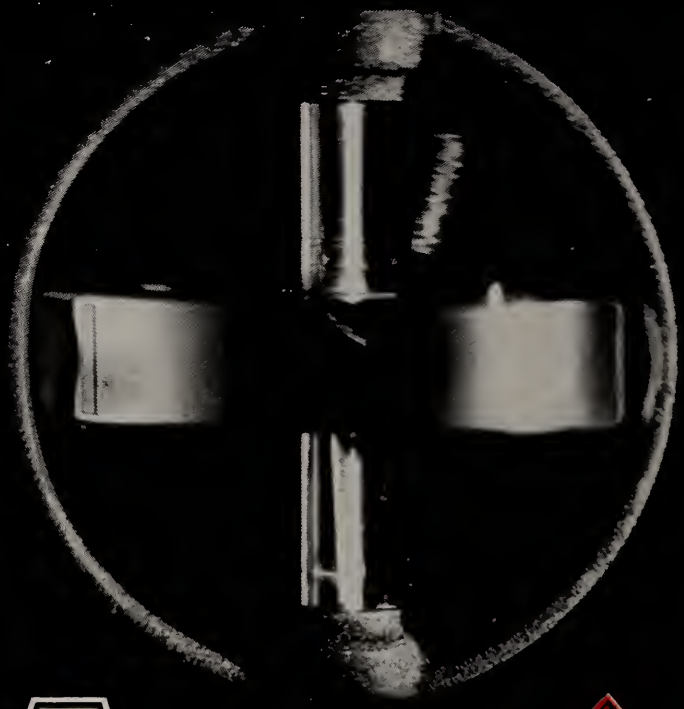


An orthopedic demonstration included the use of an electric cast cutter. Haven E. Jones, M.D., right, is assisted by Nurse Lois Doering.



An actual physical examination is performed by G. Edward Braunschneider, M.D., following the history taking scene.

minimal disturbance
of the patient's chemical and psychic balance . . .



still unsurpassed for <u>total</u> corticosteroid benefits

Aris

Substantiated by published reports of leading clinicians:

- **effective control** of allergic and inflammatory symptoms[1-20]
- **minimal disturbance** of the patient's chemical and psychic balance[1, 4, 5, 8-19]

stocort®

Triamcinolone LEDERLE

nti-inflammatory and antiallergic levels ARISTOCORT means:

- **freedom from salt and water retention**
- **virtual freedom from potassium depletion**
- **negligible calcium depletion**
- **euphoria and depression rare**
- **no voracious appetite—no excessive weight gain**
- **low incidence of peptic ulcer**
- **low incidence of osteoporosis with compression fracture**

ations: rheumatoid arthritis; arthritis; respiratory allergies; allergic and inflammatory latoses; disseminated lupus erythematosus; nephrotic syndrome; lymphomas and leukemias.

utions: With ARISTOCORT all traditional precautions to corticosteroid therapy should be observed. Dosage should always be carefully adjusted to the smallest amount which will suppress toms. After patients have been on steroids for prolonged periods, discontinuance must be ed out gradually.

lied: Scored tablets of 1 mg. (yellow); 2 mg. (pink); 4 mg. (white); 16 mg. (white).
tate Parenteral (for intra-articular and intrasynovial injection). Vials of 5 cc. (25 mg./cc.).

References: 1. Feinberg, S.M., Feinberg, A.R., and Fisherman, E.W.: *J.A.M.A.* 167:58 (May 3) 1958. 2. Epstein, J.I. and Sherwood, H.: *Connecticut Med.* 22:822 (Dec.) 1958. 3. Friedlaender, S. and Friedlaender, A.S.: *Antibiotic Med. & Clin. Ther.* 5:315 (May) 1958. 4. Segal, M.S. and Duvenci, J.: *Bull. Tufts North East M. Center* 4:71 (April-June) 1958. 5. Segal, M.S.: Report to the A.M.A. Council on Drugs, *J.A.M.A.* 169:1063 (March 7) 1958. 6. Sherwood, H. and Cooke, R.A.: *J. Allergy* 28:97 (Mar.) 1958. 7. Duke, C.J. and Oviedo, R.: *Antibiotic Med. & Clin. Ther.* 5:710 (Dec.) 1958. 8. McGavack, T.H.: *Clin. Med.* (June) 1958. 9. Freyberg, R.H.; Berntsen, C.A., and Hellman, L.: *Arthritis and Rheumatism* 1:215 (June) 1958. 10. Hartung, E.F.: *J.A.M.A.* 167:973 (June 21) 1958. 11. Hartung, E.F.: *J. Florida Acad. Gen. Pract.* 8:18, 1958. 12. Zuckner, J.; Ramsey, R.H.; Caciolo, C., and Gantner, G.E.: *Ann. Rheum. Dis.* 17:398 (Dec.) 1958. 13. Appel, B.; Tye, M.J., and Leibsohn, E.: *Antibiotic Med. & Clin. Ther.* 5:716 (Dec.) 1958. 14. Kalz, F.: *Canad. M.A.J.* 79:400 (Sept.) 1958. 15. Mullins, J.F., and Wilson, C.J.: *Texas State J. Med.* 54:648 (Sept.) 1958. 16. Shelley, W.B.; Harun, J.S., and Pillsbury, D.M.: *J.A.M.A.* 167:959 (June 21) 1958. 17. DuBois, E.F.: *J.A.M.A.* 167:1590 (July 26) 1958. 18. McGavack, T.H.; Kao, K.T.; Leake, D.A.; Bauer, H.G., and Berger, H.E.: *Am. J. Med. Sc.* 236:720 (Dec.) 1958. 19. Council on Drugs: *J.A.M.A.* 169:257 (Jan. 17) 1959. 20. Rein, C.R.; Fleischmajer, R., and Rosenthal, A.R.: *J.A.M.A.* 165:1821 (Dec. 7) 1957.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

THIRD "FAMILY DOCTOR" SHOW

(Continued from Page 1948)

C. W. Aldridge, M.D., H. D. Ireland, M.D.; Haven E. Jones, M.D.; Douglas Moore, M.D., and John R. Pedden, M.D., all of Grand Rapids.

Medical assistants from the Kent County Medical Assistants Society were:

Karen Brunger, Claire Burnett, Lois Doering, Beatrice Ohren, Mrs. Marcia Shooks, and Charlotte Webster.

Oakland Doctors Help at Area Football Contests

This fall, doctors of the Oakland County Medical Society offered their services during football games to local high schools so that better on-the-spot protection could be given injured players.

George N. Petroff, M.D., of Pontiac, chairman of the committee which arranged the program, said, "The instant response to the Medical Society offer indicated how much school boards desired this supplementary measure. Five schools responded immediately on the heels of the offer and others followed quickly.

Doctor Petroff said that the doctor assigned to cover the games had the final say as to whether the athlete continued to play in a game. A medical rule was that any boy rendered unconscious on the field was not returned to that game. In the case of a dislocation, the player was through for the season.

Plans for enlarging the program for the 1960 football season are already under discussion.

Communications

We are happy to publish this letter, particularly as it will give pleasure to Charles Sellers, M.D., of Detroit, who selected the writers, collected the papers and edited the essays for the symposium which appeared in the September issue, and did such a beautiful piece of work.—Editor.

Dear Doctor Haughey:

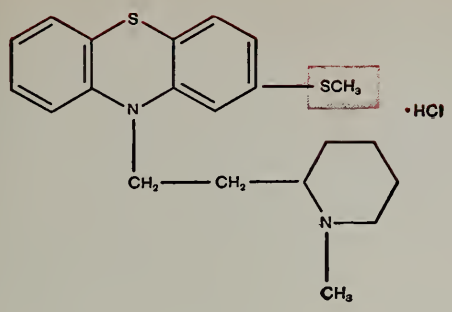
I have enjoyed your September 1959 issue of The Journal of Michigan State Medical Society and must congratulate you on your excellent selection of articles concerning the care of the aged which appear in this issue. I think they are splendid.

With kind regards, I am

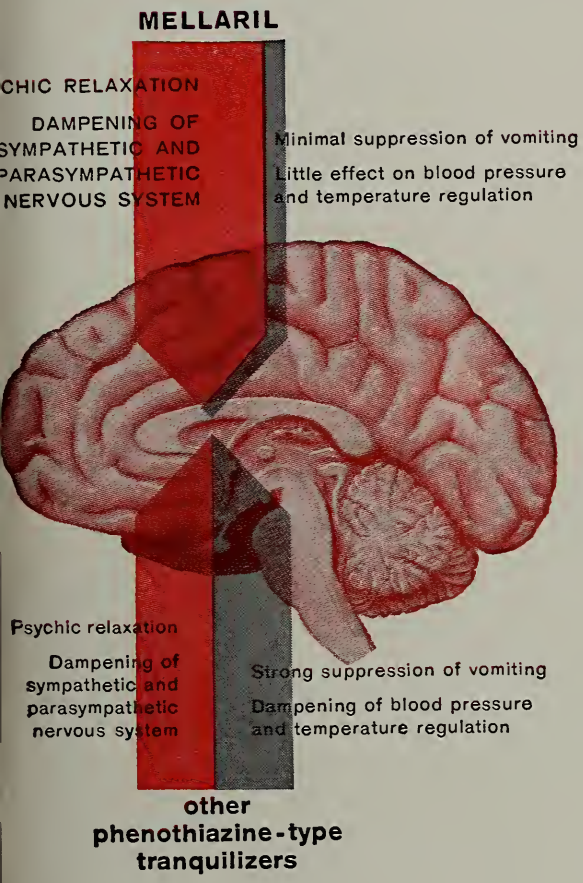
Sincerely yours,
H. E. Carnes, M.D.
Editor, Therapeutic Notes
Parke, Davis & Company



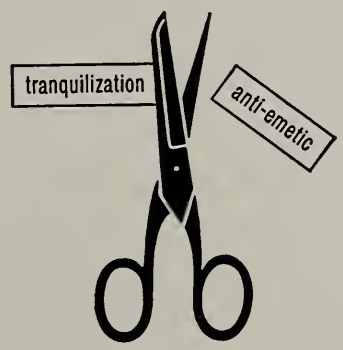
new advance in tranquilization:
reater specificity of tranquilizing action results in fewer side effects



The presence of a thiomethyl radical (S-CH_3) is unique in Mellaril and could be responsible for the relative absence of side effects and greater specificity of psychotherapeutic action. This is shown clinically by:



1 A specificity of action on certain brain sites in contrast to the more generalized or "diffuse" action of other phenothiazines. This is evidenced by a lack of appreciable anti-emetic effect.



2 Less "spill-over" action to other brain areas — hence, absence of undue sedation, drowsiness or autonomic nervous system disturbances.

3 A notable absence of extrapyramidal stimulation.

4 Lack of impairment of patient's normal drive and energy.

5 Virtual freedom from such toxic effects as jaundice, photosensitivity, skin eruptions, blood forming disorders.

INDICATION	USUAL STARTING DOSE	TOTAL DAILY DOSAGE RANGE
ADULTS: Mental and Emotional Disturbances:		
MILD—where anxiety, apprehension and tension are present	10 mg. t.i.d.	20-60 mg.
MODERATE—where agitation exists in psychoneuroses, alcoholism, intractable pain, senility, etc.	25 mg. t.i.d.	50-200 mg.
SEVERE—in agitated psychotic states as schizophrenia, manic depressive, toxic psychoses, etc.:		
Ambulatory	100 mg. t.i.d.	200-400 mg.
Hospitalized	100 mg. t.i.d.	200-800 mg.
CHILDREN: BEHAVIOR PROBLEMS IN CHILDREN	10 mg. t.i.d.	20-40 mg.

ELLARIL Tablets, 10 mg., 25 mg., 100 mg.

stfeld, A. M.: Scientific Exhibit, American Academy
f General Practice, San Francisco, April 6-9, 1959

SANDOZ

You and Your Business

Compulsory Retirement Hit by AMA President Orr

"Retirement is fine, for those who want it, but many old people are finding old age a time of privation and misery, because an unthinking, albeit well-meaning society has ousted them from the mainstream of active living, into the morass of loneliness and hardship. To put a man out to pasture on a pension—solely because he has reached a chronological age—is ruthless!"

Addressing the Grand Rapids Lions Club on November 3, AMA President Louis M. Orr thus pointed to compulsory retirement at the age of sixty-five as the real problem of today's senior citizen. Dr. Orr noted, "We still have yet to find a wonder drug to cure loneliness or rejection."

In discussing the Forand Bill in Congress, which would provide hospital, surgical and nursing home care to social security beneficiaries, Dr. Orr described how the 15 million Americans over the age of 65 currently are being provided adequate and individualized health care in the community.

He noted that much of the health services now voluntarily provided to the medically indigent might quickly vanish if the federal government were permitted to provide for (and dictate the quality of) health care to this segment of the population.

Dr. Orr emphasized that the patent danger in the Forand Bill was the inevitability of the older age group being legislated into a dependence on the federal government for all its health needs, subject to Congressional whim and political pressure.

"The voluntary, community-level program is the only answer," Dr. Orr concluded. "We must defend the right to develop those voluntary solutions to our problems rather than have government dictation thrust upon us. We have added years to life; now we want to add life to those years."

Dr. Orr came to Grand Rapids directly from England where he participated in Prince Philip's inauguration as President of the British Medical Association.

Better Medicolegal Relations Urged

The public, in general, and physicians, specifically, should act to keep our laws up to date with scientific and medical progress, challenges LeMoyne Snyder, M.D., LL.D., formerly of East Lansing and now of Paradise, California.

"In large measure, our laws continue to be hostile to medical jurisprudence," contends Doctor Snyder in a recent *AMA Journal* article.

"Only a few states have made any demand for competent medical experts to come to the aid of the law," reports Doctor Snyder. He points out that Britain has made greater advances in this field than U.S.A., and that chairs of legal medicine have been established in leading British medical schools. He observes:

"Advances in science have provided new tools. It is up to society now to see that the law uses them.

"Laws must be molded to make use of this vast expanse of scientific knowledge in the administration of justice. As people generally become aware of these advances the laws ultimately have to conform to encompass and use new and more reliable information.

"Laws never create public opinion, but laws sooner or later always have to conform to public opinion."

Doctor Snyder noted that some advances are being made, especially by the states that have instigated the medical examiner system in place of the coroner system.

"Michigan Heart Day" Set for Detroit in February

The first annual "Michigan Heart Day" has been scheduled for Saturday, February 13, 1960, at the Statler Hilton Hotel in Detroit. Separate sessions have been arranged for physicians and lay members.

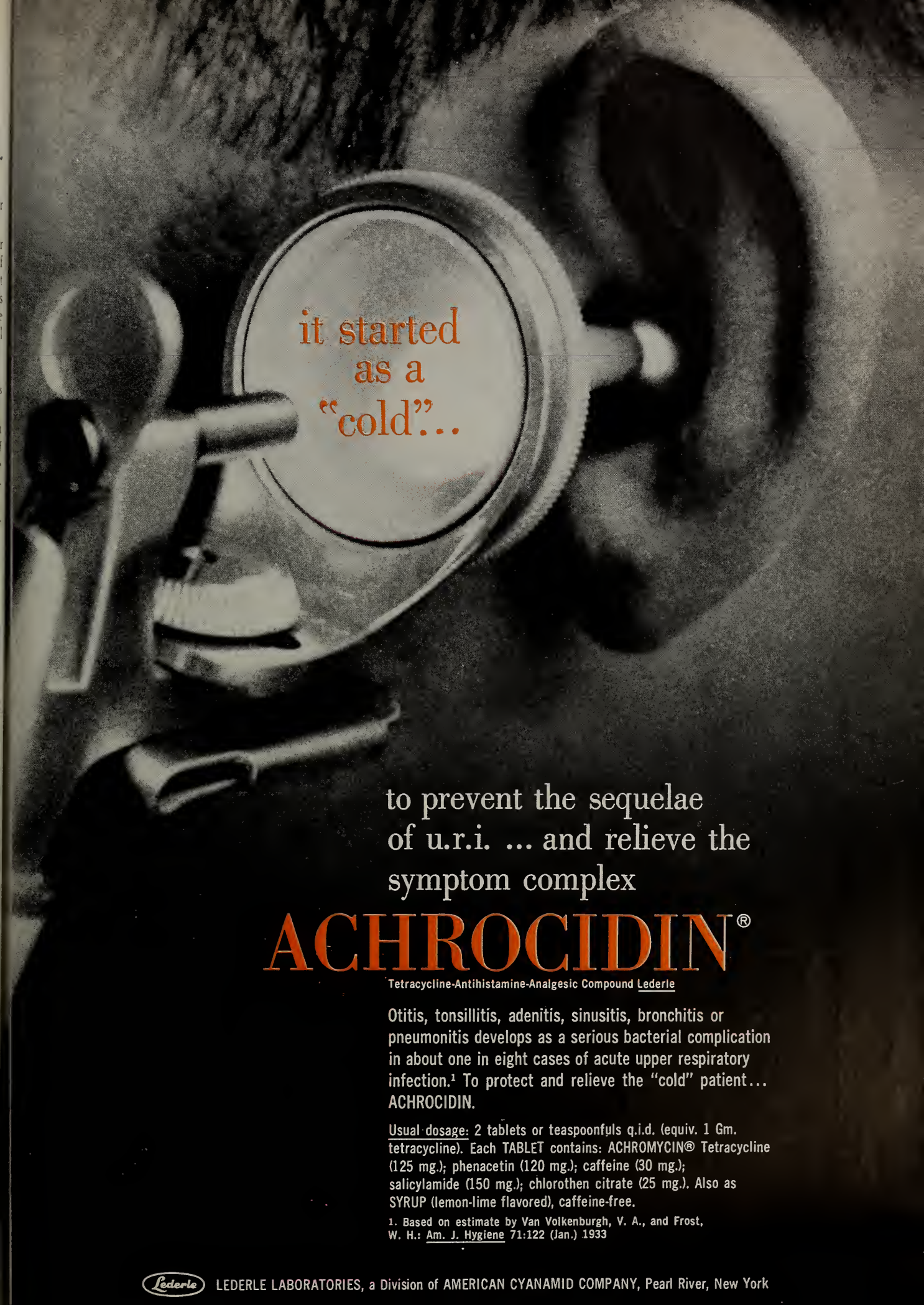
The morning scientific session will begin at 9:00 with a presentation by Samuel A. Levine, M.D., Boston, on "Coronary Artery Disease," followed by Thomas M. Durant, M.D., Philadelphia, on "Congestive Heart Failure." The concluding morning presentation will be given by John S. Meyer, M.D., Wayne State University College of Medicine, on "Diagnosis and Treatment of Cerebral Accidents."

The afternoon Scientific Session from 1:30 to 5:00 will be devoted to panel discussions of the topics covered in the morning.

At the session for lay members, beginning at 2:00, Louis N. Katz, M.D., Chicago, will advise on the "Care and Feeding of Husbands." Ancel Keys, Ph.D., and Mrs. Keys, Minneapolis, will follow. Dr. Keys will talk on "Diet and the Prevention of Coronary Heart Disease," and Mrs. Keys will discuss "The Practical Choice and Preparation of Food."

The Business Meeting of the MHA will follow a luncheon.

(Continued on Page 1964)



to prevent the sequelae of u.r.i. ... and relieve the symptom complex

ACHROCIDIN®

Tetracycline-Antihistamine-Analgesic Compound Lederle

Otitis, tonsillitis, adenitis, sinusitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.[1] To protect and relieve the "cold" patient... ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP (lemon-lime flavored), caffeine-free.

1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

"Michigan Heart Day" Set for Detroit in February

(Continued from Page 1962)

"Michigan Heart Day" will be the high point of activity of Heart Month in the state. By changing the time of the annual meeting of the Association from March to February, an added impetus can be given to the intensified education drive conducted in Michigan each February.

Michigan Representatives Honored at AAMA

Twenty-five Michigan medical assistants attended the Third Annual Convention of the American Association of Medical Assistants at the Benjamin Franklin Hotel in Philadelphia, October 16, 17 and 18, 1959.

John W. Rice, M.D., MSMS Advisory Board Chairman to MSMAS, was elected chairman of the National Advisory Board for the ensuing year.

Hallie Cummins, a past president of the Michigan State Medical Assistants Society, and a former member of the AAMA Board of Directors, was elected as the national treasurer. Michigan was further honored by being presented an "Emmy" for first prize in the National Bulletin Contest.

H. W. Brenneman, Public Relations Counsel for MSMS, made an excellent presentation on the Educational Seminar on Saturday afternoon; his talk was titled "Leadership in Public Relations."

The MSMAS three-year in-service training program developed by the University of Michigan, with the help of MSMS and a grant by the Kellogg Foundation, was presented to the National Association. Dr. Ralph Steffek of the University of Michigan Extension Service, formally presented the training program syllabi to the incoming president of AAMA.

The House of Delegates of AAMA has appointed a Three-Year Study Committee to evaluate and make recommendations on future recognition through certification. Louis M. Orr, M.D., offered the assistance and guidance on the AMA on this study committee.

Michigan Delegates included: Mrs. Reta Stahl, Albion, president of MSMAS; Miss Donna Hislop, Muskegon, immediate past president; Mrs. Julia Pietila, Houghton; Miss Hallie Cummins, Caro. Alternate Delegates included: Miss Catherine LaPres, Muskegon; Mrs. Betty Lou Willey, Port Huron, president-elect of MSMAS, Miss Doris Jarrad, Detroit, and Mrs. Vivian Branyan, Grand Haven.

Miss Marlouise Redman, Detroit, was program chairman for the convention. Miss Elsie Kotsch, Detroit, and Miss J. Helen Rehm, Ferndale, assisted in the Officers' Workshop.

Social Security Conference

Unemployment and health insurance were discussed at a Social Security Conference held November 18-19 at Ann Arbor. Co-sponsored by the state's three major universities, the conference was held at the Michigan Union. Co-operating in the program were the University of Michigan, Wayne State University Institute of Labor and Industrial Relations and the Michigan State University Labor and Industrial Relations Center.

Speakers were Mrs. Anne R. Somers, research associate at Haverford (Pa.) College, discussing "Key Issues in Health Insurance." Commenting on her views: Mrs. Ida Merriam, director, Division of Program Research, Social Security Administration, U. S. Department of Health, Education, and Welfare; Morris Brand, M.D., medical director, Sidney Hillman Health Center, New York, N. Y.; and Alanson Willcox, general counsel, American Hospital Association.

George F. Davidson, Canadian deputy minister of health and welfare, spoke on "Trends and Issues in Canadian Social Security" following a 6:30 p.m. conference banquet.

The morning program on November 19 included William Haber, University of Michigan professor of economics, "The Persistent Problem of Unemployment"; Fedele Fauri, dean, University of Michigan School of Social Work, "The Role of Public Assistance"; William Papier, director of research and statistics, Bureau of Unemployment and Compensation, the State of Ohio, Columbus, "The Role of Unemployment Compensation."

MEDICAL MEETINGS AND CLINIC DAYS

1959-60	Events	Location
January 30-31	County Secretaries-Public Relations Seminar	Detroit
January 30	Bulletin Editors' Workshop	Detroit
February 13	Maternal Health Day	Detroit
February 25-27	National Conference on Rural Health	Grand Rapids
March 11-12-13	Michigan Clinical Institute	Detroit
April 13	Genesee County Cancer Day	Flint
May 7	Ingham County Clinic Day	Lansing



when upper respiratory congestion is complicated by bacterial invaders

TRISULFAMINIC provides logical therapy

- for the patient ill with congestion and infection of the upper respiratory tract, as in purulent rhinitis, sinusitis, tonsillitis and otitis media, when caused by sulfa-susceptible bacteria;
- because secondary invasion by such bacteria so frequently follows the common cold.[1]

the reasons for combining Triaminic with triple sulfas

Triaminic and triple sulfas are not only pharmacologically *compatible,* they are a therapeutically *logical* combination for upper respiratory infections: Triaminic for effective decongestant relief from rhinitis, rhinorrhea and sinusitis;[2] triple sulfas for well-established antibacterial action.

The advantages of Trisulfaminic in upper respiratory infections include: proved effectiveness; safety; economy; ease of administration; less likelihood of sensitivity reactions;[3] compatibility with antibiotics and other antibacterial therapy. Provided also as Suspension for additional convenience.

Trisulfaminic®

TRIAMINIC WITH TRIPLE SULFAS

Available as TABLETS and SUSPENSION

Each easy-to-swallow Trisulfaminic Tablet or 5 ml. teaspoonful of Suspension provides:

Triaminic® .....25 mg.
(phenylpropanolamine HCl 12.5 mg.
pheniramine maleate ..... 6.25 mg.
pyrilamine maleate ..... 6.25 mg.)
Trisulfapyrimidines, U.S.P. .....0.5 Gm.

Dosage:

Adults—2 to 4 tablets or tsp. initially, followed by 2 tablets or tsp. every 4 to 6 hours until the patient has been afebrile 3 days. *Children 8 to 12* – 2 tablets or tsp. initially, followed by 1 tablet or tsp. every 6 hours. *Children under 8*—dosage according to weight.

The palatability, convenience and effectiveness of the Suspension make it especially suitable for children and for those older patients who prefer liquid medication.

References: 1. Cecil, R. L., et al.: J.A.M.A. 124:8 (Jan. 1) 1944. 2. Fabricant, N. D.: E.E.N.T. Monthly 37:460 (July) 1958. 3. Beckman, H.: Drugs, Their Nature, Action & Use, Saunders, Philadelphia, 1958, p. 527.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

State Medical Journal Editors' Conference

The 1959 Conference of State Medical Society Medical Journal Editors was held in Chicago, October 26-27. It consisted of two days of well-selected programs including greetings from F. J. L. Blasingame, M.D., Executive Vice President of the American Medical Association.

Many subjects were covered including Research and Health, Legal Problems involved in publishing medical journals, Printing Costs and how they can be controlled, Medicine and Marketing from a pharmaceutical standpoint, Indexing Techniques, Abstracts of articles submitted and accepted for AMA specialty journals, Co-operation between the Medical Departments of the Pharmaceutical Industry and Editors of All Medical Journals.

At the banquet held the first evening Jack Herbert talked on "Pills I Have Known." A paper, "In defense of the Printed Word as a means of Medical Communication as Against Other Forms of Spreading What May or May Not Be Called the Gospel," was presented the next day, following which Mr. O. M. Forkert of O. M. Forkert Associates presented a talk on "New Trends in Magazine Format: Visual Showing and Comments on Progress of Our Journals." This is the third time he has appeared before this group. The new format which some of the national publications, such as the *Saturday Evening Post*, took a few years ago was the result of his work. He complimented the editors and personnel upon the extreme progress made by the medical journals since he first saw them in 1955. He had been furnished the April issue of each of the publications and made an elaborate study from seven or eight different categories with ten or twelve questions under each. He graded each journal under each category and announced that the only time he ever gave 100 per cent was when it was worth it. When it was outstanding, he considered 90 per cent as very good. Seven of the journals rated 90 per cent or above; twenty-one rated from 87.5 to 90 per cent.

He pointed out many things which can be done to make the journals more readable, more newsworthy, more attractive. He said one of the greatest advances in printing and communications was the development of movable type, and he told about a replica of the original first page so printed. He picked up the *Rocky Mountain Medical Journal* and said it was the one which had made the most improvement in the years from 1955 to 1959. He called upon the editor and presented him with a framed duplicate of the original printing job. Next, he picked up the THE JOURNAL of the Michigan State Medical Society and commented upon the cover, how attractive and significant it was, its bearing upon the contents of THE JOURNAL, and awarded Michigan one of the replicas with a score of 100 per cent. Next he awarded *Minnesota Medicine* a replica for its use of materials and format, and fourth he awarded Georgia a plaque for the outstanding job done in presenting a paper in that number of the journal with illustrations and details which "talked to you." He said the rest of the journals had many of them lost out only by half a point. They ran so close together, the total average was 88.14 per cent.

COLON CARCINOMA

(Continued from Page 1938)

To adequately study the colon roentgenographically, there must be proper careful preparation of the patient beginning at least twenty-four hours before the study is made. There are some few instances when this routine has to be modified because of the patient's condition. In acute obstructions barium may be given rectally without preparation. It makes no particular difference how the colon is cleared—the important point is that the colon must be free of confusing nonopaque fecal shadows.

The details of the examination vary. Many believe that the colon should be studied with a thin barium mixture and a high voltage technique which will reveal small intrinsic lesions. Frequently further examination by the more familiar double contrast method is indicated.

Polyps are much more common than we are led to believe and are impossible to demonstrate without adequate preparation and careful study. Thirty per cent of all patients with cancer of the colon will show polyps near the site of the cancer.

Colon cancer is curable in approximately fifty per cent of the cases. Early diagnosis will greatly improve this survival rate. As physicians, the responsibility rests with us.

LELAND E. HOLLY, M.D.
Radiologist

Eyes Right!

the advantages of oil suspension

rapid even coverage on eye, lids, fornices . . . resists dilution by lacrimation . . . maintains effective antibiotic concentrations

the effectiveness of ACHROMYCIN

rapid suppression of common cocci and bacilli and of susceptible viruses—whether the primary infection or a complication of irritation, trauma, or inflammatory disease . . . fast resolution of swelling, erythema, and lesions . . . excellently tolerated

in the unique dropper-bottle

precise measurement of dose . . . clean . . . minimizes contamination . . . 4 cc. plastic squeeze dropper-bottle; 10 mg. (1%) ACHROMYCIN Tetracycline HCl per cc. sesame oil suspension



ACHROMYCIN

Tetracycline Lederle

OPHTHALMIC OIL SUSPENSION 1%

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

AMA Washington Letter

THE MONTH IN WASHINGTON

A special committee of consultants to the Federal government has recommended what was termed an urgent, essential program designed to maintain the present ratio of physicians in a sharply expanding population.

Dr. Leroy E. Burney, Surgeon General of the Public Health Service, gave his personal approval to the recommendations made by his Consultant Group on Medical Education (twenty-two members) after about a year's study. But he said he couldn't indicate yet "the extent to which they can be incorporated" in next year's proposals of the Department of Health, Education and Welfare.

The Consultant Group recommended expansion of existing medical schools and construction of twenty to twenty-four new ones with Federal help, federal scholarships for medical students, and greater efforts in the field by states, local communities, foundations, individuals, industry and voluntary agencies.

The Group said the present ratio of 133 doctors of medicine and 8 doctors of osteopathy per 100,000 population is "a minimum essential to protection of the health of the people of the United States."

To maintain this ratio the Group said, "the number of physicians graduated annually by schools of medicine and osteopathy must be increased from the present 7,400 a year to some 11,000 by 1975—an increase of 3,600 graduated.

"To meet the country's need for physicians for medical care, teaching, research and other essential purposes will require an immediate and strenuous program of action by the nation as a whole," the Group's 95-page report stated.

"This program must safeguard and improve the quality of medical education as well as bring about the needed substantial increase in the number of physicians."

The No. 1 recommendation of the Group was for the Federal government to appropriate over the next ten years' funds—estimated at about $500 million "on a matching basis to meet construction needs for medical education," including necessary teaching hospitals.

"The Consultant Group is convinced that the nation's physician supply will continue to lag behind the needs created by increasing population unless the Federal government makes an emergency financing contribution on a matching basis toward the construction of medical school facilities," the report said.

The Group also said research grants to medical schools "should cover full indirect costs so that medical schools are properly reimbursed for the contribution of medical education to medical research."

These two recommendations were in line with American Medical Association positions on the matters.

The Group also urged "more generous public and private support for the basic operations of medical schools." Such support, the report added, "must come from many sources, including state and local appropriations, endowments, gifts and grants, universities, and reimbursement for patient care."

Most of the consultants were physicians or educators. They included Dr. Julian Price of Florence, S. C., a member of the AMA Board of Trustees, and Dr. Edward L. Turner, Director of the AMA Division of Scientific Activities.

Highlights of the Group's report included:

. . . To maintain the present physician-population ratio, the expected 1975 population of 235 million will require a total of 330,000 doctors of medicine and osteopathy.

. . . There also must be 12,000 entering students in 1971, as against about 7,600 a year now.

. . . "In a very real sense, the needs for physicians cannot be met by numbers alone. They will be met only as an expanded program maintains and enhances the quality of medical education."

. . . The entry of more physicians into research, industrial medicine and similar activities "has made possible much of the progress of modern medicine." But it also has resulted in "relatively fewer physicians devoting full time to patient care."

TELEVISION AND CHILDREN'S EYES

Television does not harm a child's vision, says an opthalmologist at The University of Michigan Medical Center.

Reported John W. Henderson, M.D., "There is no evidence to show that excessive television viewing does more than injure the mind."

For the first time

CONVENIENCE and ECONOMY

for that all-important first dose of broad-spectrum antibiotic therapy

New

TERRAMYCIN®
brand of oxytetracycline

INTRAMUSCULAR SOLUTION



Initiation of therapy in *minutes after diagnosis* with new, ready-to-inject Terramycin Intramuscular Solution provides maximum, sustained absorption of potent broad-spectrum activity

...and for continued, compatible, coordinated therapy

COSA-TERRAMYCIN®
oxytetracycline with glucosamine

CAPSULES

Continuation with oral Cosa-Terramycin every six hours will provide highly effective antibacterial serum and tissue levels for prompt infection control.

The unsurpassed record of clinical effectiveness and safety established for Terramycin is your guide to successful antibiotic therapy.

Supply:
*Terramycin Intramuscular Solution**
100 mg./2 cc. ampules
250 mg./2 cc. ampules

Cosa-Terramycin Capsules
125 mg. and 250 mg.

Cosa-Terramycin is also available as:
Cosa-Terramycin Oral Suspension — peach flavored, 125 mg./5 cc., 2 oz. bottle
Cosa-Terramycin Pediatric Drops — peach flavored, 5 mg./drop (100 mg./cc.), 10 cc. bottle with plastic calibrated dropper

Complete information on Terramycin Intramuscular Solution and Cosa-Terramycin oral forms is available through your Pfizer Representative or the Medical Department, Pfizer Laboratories.

*Contains 2% Xylocaine® (lidocaine), trademark of Astra Pharmaceutical Products, Inc.

Pfizer
Science for the world's well-being™

PFIZER LABORATORIES, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.

Tetracycline-Triple Sulfa Combination (TETREX® c̄ T/S) in the Treatment of INFECTION

It is generally agreed that it is ideal to withhold antibiotic and chemotherapeutic drugs until after sensitivity tests show which antibacterial agent will be most effective. But very often, in actual practice, the physician knows that delay in starting antibacterial treatment may be detrimental to the welfare of his patient. He must then select the therapy to meet the most serious and immediate threats to the patient.

Why Combination Therapy?

Certain infections do not respond as well to a single agent as to a combination. *Hemophilus influenzae* infections, which are frequent in children, are a particularly serious threat to infants and children up to about 3 or 4 years of age since they have not yet built up any appreciable immunity. Serious complications such as influenzal pneumonia, empyema, or meningitis may develop, especially in this age group. In fact, except for those periods when meningococcal meningitis is epidemic, *H. influenzae* is the most frequent cause of meningitis.[1] This gram-negative organism is highly susceptible both to the tetracyclines and to the sulfonamides. Even in severe infections, therapeutic failure can be virtually eliminated by giving sulfonamides plus tetracycline.[1] These two agents together constitute the treatment of choice, and give better results than either alone.[2]

Sulfonamides remain the drugs of choice for all meningococcal infections, including meningitis. They readily penetrate the blood-brain barrier and pass into the cerebrospinal fluid in good concentrations.[3] In treating overwhelming meningococcal infections, and complicating infections of the upper respiratory tract caused by other organisms, the addition of tetracycline to sulfas can be valuable.[4]

In recent years the sulfonamides have again been prescribed more and more frequently. In certain serious infections, better results can be obtained with a combination of antibiotic and sulfonamide than with either drug alone (e.g., severe pneumococcal pneumonia or pneumococcal meningitis[5]). Furthermore, mixed infections, to which young children are particularly susceptible, often respond only to combination therapy such as tetracycline with sulfonamides (TETREX c̄ T/S).

Why Triple Sulfas?

Some sulfonamides, though therapeutically useful, frequently crystallize and cause renal damage. Sulfonamide mixtures are designed to prevent this effect. It is known that different substances can coexist in solution without interfering with each other's solubility. In such a solution each component behaves as if it alone were present. Thus, a much larger total amount of sulfonamide can exist in the urine without precipitating if a mixture is administered than if the same amount of only one compound is given.

Similarly, there is less danger of hypersensitivity with mixtures. The incidence of sensitization varies directly with the dosage and is limited to the particular sulfa given. Simultaneous use of several sulfa compounds, each in partial dosage, tends to keep each drug below its own sensitization level.[3] As with all sulfonamides, it is advisable to check for possible blood dyscrasias, rash, or renal toxicity during extended administration.

TETREX c̄ T/S, by combining only 167 mg. each of sulfadiazine, sulfamerazine, and sulfamethazine, practically eliminates serious renal damage and sensitization reactions due to sulfonamides while retaining the therapeutic efficacy of the total dose.

TETREX c̄ T/S can be administered with confidence in all severe and mixed infections due to tetracycline-sensitive and sulfonamide-sensitive organisms, including infections of the upper respiratory, urinary, and gastrointestinal tracts.

References: 1. Alexander, H. E.: The hemophilus group. In: Dubois, R. J.: Bacterial and Mycotic Infections of Man. Ed. 3, Philadelphia, J. B. Lippincott Co., 1958, p. 470ff. 2. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics. Ed. 2, New York, The Macmillan Co., 1956, pp. 1322-1323. 3. Beckman, H.: Drugs — Their Nature, Action, and Use. Philadelphia, W. B. Saunders Co., 1958, pp. 527-528. 4. Dingle, J. H.: Meningococcal infections. In: Cecil, R. L., and Loeb, R. F.: A Textbook of Medicine. Ed. 9, Philadelphia, W. B. Saunders Co., 1955, p. 196ff. 5. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics. Ed. 2, New York, The Macmillan Co., 1956, p. 1308.

TETREX® c̄ T/S

Antibiotic-triple sulfa combination in a palatable, cherry-flavored syrup.

Each 5 ml. teaspoonful contains:

Tetracycline (ammonium polyphosphate buffered equivalent to tetracycline HCl activity)	125 mg.
Sulfadiazine	167 mg.
Sulfamerazine	167 mg.
Sulfamethazine	167 mg.

This suspension may be stored at normal room temperature.

BRISTOL LABORATORIES INC., SYRACUSE, NEW YORK

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 DECEMBER, 1959 NUMBER 12

Putting Psychiatry Back into Medicine

By Frank J. Ayd, Jr., M.D.
Baltimore, Maryland

THE development of new treatment techniques, especially the tranquilizing drugs, broader insurance coverage for psychiatric disorders, and more private practicing psychiatrists have increased the demand for admission of mental patients to general hospitals. Yet more than half of the general hospitals in the United States never admit a known psychiatric patient, one-third admit such patients solely for diagnosis or for emergency treatment, and only 1 per cent have a psychiatric service even though mental illness is America's number one medical problem.

Psychiatrists are partly to blame for this for not aggressively waging a more persuasive campaign to dispel the misunderstandings and misrepresentations of psychiatric patients and their treatment. However, even when general hospital administrators recognize that they can increase the usefulness of their institution by accepting the psychiatric patient, they contend that they cannot do so because they lack the space, personnel, and finances to set up a psychiatric division separate from the other specialty services. This is regretable, for it need not be. The few general hospitals without a special psychiatric unit which have accepted psychiatric patients have shown that such a department is not absolutely necessary.

The Franklin Square Hospital in Baltimore is a general hospital without a separate psychiatric division which admits psychiatric patients to private, semi-private, and ward beds on the medical service. Initially this program was passively opposed by some of the medical and nursing staff who were influenced by past prejudices and misunderstandings regarding the nature and treatment of mental illness. These people expressed fears of suicides and of excited patients disrupting the hospital routine and disturbing the non-psychiatric patients. Nurses needed reassurance that the mental patient would not endanger them nor consume an inordinate amount of nursing time. These fears have been replaced by an acceptance and endorsement of the psychiatric program by all hospital personnel.

Among the first to be admitted were acutely and moderately disturbed schizophrenic and potentially suicidal manic depressive and involutional depressive patients. The successful management of these individuals demonstrated that good care could be provided for all types of psychiatric disorders without the need of isolating the patients and without disturbing either the other patients or the hospital routine. Consequently, the hospital became more liberal in the admission of psychiatric patients. Since August 1, 1955 over 500 patients have been admitted and treated for such illnesses as acute brain syndromes, alcoholism, toxic psychosis, psychoneurotic disorders, schizophrenic reactions, manic depressive reactions, acute situational stress reactions, acute psychic disturbances in geriatric patients, and for a variety of psychoso-

---

Read at the Michigan Academy of General Practice 12th Annual Fall Post-Graduate Clinic, Sheraton-Cadillac Hotel, Detroit, November 12-13, 1958.

Dr. Ayd is Chief of Psychiatry, Franklin Square Hospital, Baltimore.

matic problems. Their treatment has consisted of psychotherapy, drug therapy, sleep therapy, electroshock therapy, and psychosurgery. The average hospital stay has been fourteen days, the minimum being three days and the maximum thirty-three days. Even though this group included seriously ill and potentially-suicidal patients, there have been no instances of overtly-disturbed behavior, nor has there been a suicide or a suicide attempt. In fact, these patients have created less disturbance than some patients on the medical, surgical, and obstetric services.

To initiate a psychiatric service in a general hospital it is necessary to have the cooperation of the medical and nursing service. They must be at least partially convinced of the need for the program. They must leave to the attending psychiatrist the responsibility of the selection of patients to be admitted. They also must permit the psychiatrist to determine the type of nursing care necessary in each case. Thus the psychiatrist must be responsible for the complete care and management of the patient in the hospital. On the other hand, the psychiatrist must teach and supervise the internes, residents, and nurses. This is best accomplished by admitting only a few patients at first. As the competence of the house staff improves the program can be expanded.

The treatment of psychiatric patients in a general hospital without a separate psychopathic division has been facilitated by the tranquilizing drugs and the advances in electro-convulsive therapy. With disturbed patients particularly, the prompt administration of adequate doses of a tranquilizer is necessary. This produces a quiescent or somnolent state so that the patient lies quietly in bed and does not disturb others. In the beginning of this program, two or three patients were not given the tranquilizer as prescribed or the nurse failed to be sure they swallowed the medication. These individuals became disturbed and upset other patients. These infrequent untoward events were disguised blessings. They impressed on the doctors and nurses the absolute importance of good psychiatric and nursing care to avert management problems. In addition, similar episodes have since been avoided by giving initial medication intramuscularly rather than orally.

As soon as the tranquilizer produces its desired behavioral effect, individual and group psychotherapy and ancillary treatment such as occupational therapy is started. The latter consists of duties such as distributing mail, making beds, arranging flowers, and reading to the other patients. Group socializing, card games, television viewing, painting, and sewing are encouraged. These activities and visiting hours twice-daily suffice to occupy the patient's day without the need of an occupational therapist or recreation director.

The majority of depressed patients are given electro-convulsive therapy, whether they are in a ward or semi-private room. Curtains are drawn around the patient's bed and the other patients are permitted to remain in the room. After the treatment a nurse, nurses aide, relative, or another patient remains with the patient until he has recovered.

This policy of open psychiatric treatment in a general hospital offers many advantages to the patient, the psychiatrist, the medical and nursing staff, and the community. It removes the stigma from mental illness. It invites early treatment for all types of psychiatric ailments. This enhances the prospect of an earlier and more complete remission. It reduces the cost of psychiatric care and spares many individuals the tragedy of years lost in a state institution.

Not all psychiatric patients are physically healthy. Many require what medicine, surgery, or the other specialties have to offer. In a general hospital, consultation with other specialties and extensive laboratory facilities are readily available. This assures patient and psychiatrist of a comprehensive medical evaluation. It also offers total medical-psychiatric care for those who need it. This is difficult to duplicate in most psychiatric hospitals.

A psychiatric service in a general hospital makes possible post-graduate instruction in basic psychiatric principles for the visiting and resident staff through ward rounds, seminars, and clinics. By observing the examination and treatment of patients they learn the impact of the emotions on body function and human behavior and to recognize basic personality type and the early manifestations of everyday psychiatric ailments. Anxiety and depression take on a new meaning for them. The patient becomes a person rather than a case. Internes, in particular, to whom the hospital has an obligation to educate, have an opportunity to understand and treat many of the emotional and mental problems which they will encounter in practice. Everyone learns that they and their patients profit from the early detection and treatment of psychiatric disorders. The internes and

residents are more prepared to recognize and care for patients on the other services who become delerious or psychotic from toxic, infectious, or traumatic causes. They are taught to take a more meaningful history and to place more reliance on knowing the patient and less on a battery of diagnostic laboratory tests. They become better diagnosticians and practitioners of medicine.

A psychiatric service not only instructs doctors; nurses also acquire a different insight than they obtained as a student affiliate in a mental hospital. They learn that all psychiatric patients are not hopelessly insane and that effective treatment can be given outside the mental institution. This changes their attitude toward mental illness and their care of the psychiatric patient. As a result, some excellent psychiatric nurses have been recruited. This has provided psychiatry with new emissaries who instruct other nurses and help the laity overcome fears and misconceptions that prevail among those unfamiliar with mental disorders and their treatment. Finally, a psychiatric service permits the hospital to fulfill its obligation to the student nurse by training her to nurse all types of people.

A marked change in the attitude of the nonprofessional hospital personnel toward psychiatry and the psychiatric patient has resulted from this program. It is quite different from their former concepts derived from movies, television, and distorted lay literature. Like the nurses, the nonprofessional personnel have carried their new knowledge outside the hospital to mold public opinion more favorably.

The intermingling of medical and psychiatric patients has had a salutary effect on the opinion of the medical patients regarding mental illness. They see the psychiatric patient treated on a par with them and not as individuals who should be put away. They learn that psychiatric treatment is not mysterious or to be feared. Relatives, friends, fellow workers, and employers of the psychiatric patients make the same observations. The uncharitable ideas of "insane," "crazy" people is being eradicated by demonstrating to all that the psychiatric patient can be treated as scientifically as patients with any other disease. Consequently, when the patient returns to his family, his job, and the community—he is accepted rather than excluded. This plays a major role in his rehabilitation.

The operation of this program has not required additional bed capacity, more hospital personnel, or a higher hospital budget. In fact, it has paid its own way since most of the patients have been covered by Blue Cross or commercial insurance companies which now pay for a minimum of twenty-one days' hospitalization for psychiatric treatment. Even without insurance, patients are more-than-willing to pay for psychiatric treatment in a general hospital because of what it means to them.

These are but a few of the benefits of a psychiatric service in a general hospital. A program such as that functioning at Franklin Square Hospital can be recommended for adoption by other general hospitals. It is feasible and practical. Its advantages outweigh the disadvantages. As more general hospitals become *general* (in fact as well as in name) by providing psychiatric care, the integration of psychiatry and general medicine will become a reality.

6231 York Road
Baltimore 12, Maryland

DRUG ADDICTS

More drug addicts live in New York than in any other state in the United States, according to the current issue of *Patterns of Disease,* a Parke, Davis & Company publication for the medical profession. Of the four states in which most of the nation's addicts are concentrated, New York is first with 45 per cent of total active addicts, Illinois second with 14 per cent, California next with 13 per cent and Michigan fourth with 5 per cent.

Addicts live mainly in big cities, *Patterns* states, and are found largely in the poorest areas of such cities, "characterized by lowest income, poorest housing, unstable family structures, and highest delinquency rates."

Functional Disorders of the Digestive Tract

Philosophic and Nosologic Aspects

By H. L. Bockus, M.D.
Philadelphia, Pennsylvania

THE PRIMARY concern of the physician is the orientation of patient complaints, in order to choose a therapeutic regimen designed to achieve amelioration or relief of symptoms and prevention of recurrence. For simplification, perhaps one could state that gastrointestinal symptoms may be the result of one of the following mechanisms: (1) an alteration of visceral structure, that is, organic visceral disease; (2) a disorder of visceral function (so-called physiological functional disorder), (3) a disturbance of the mind, or (4) various combinations of the above.

Medicine is now returning to an older concept of considering all ailments as being psychosomatic or psychovisceral in character. In other words, ordinarily, organs or systems do not express themselves as isolated structures, but complaints rather are related to an interaction of physiologic and psychologic activity, whether the cause be organic or functional. It is agreed that there is no sharp line of demarcation between health and disease, nor often between structural change and simple functional or physiologic abberation from the expected normal. Nevertheless, it is essential for purposes of clinical understanding, of classification, and of nosological orientation to maintain for the present the designation "functional disorders." In order that functional disorders be brought into proper perspective, it is important for clinicians to keep in mind the history of the sequence of advances in clinical medicine which have brought us to our present understanding of functional disease. Walshe[13] has recently summarized, chronologically, the historical events upon which our present knowledge of clinical medicine rests. I have drawn upon his interesting account for the brief recitation of these events.

Without some knowledge of the cornerstone and solid foundations which culminated in our present structure known as "clinical medicine," one cannot fully appreciate the significance of the recent advances being made in our knowledge of functional disorders. The significant cornerstone which ushered in the renaissance of clinical medicine in the seventeenth century was laid by the great pioneer clinician, Sydenham, and the physiologist, Harvey. Sydenham began the study of ill persons by accurately describing symptoms and signs; he developed a scientific discipline in clinical medicine; he was the founder of nosology. It was not until the beginning of the nineteenth century, as a result of the work of Bichat and Corvisart in France, that the first important impetus was given to another solid foundation for the emergence of clinical medicine. I refer to the systematic development of pathologic anatomy and clinicopathologic methods. Then came further improvement in clinical techniques beyond that of simple inquiry, observation, and classification which had been introduced by Sydenham, namely, the utilization of objective methods of examination. The use of the stethoscope by Laennec was one of the first important steps in the development of objective methods of examination. This triad, consisting of symptom analysis, pathologic examination, and objective clinical examination, forms the basis of good clinical practice today.

The stage was now set for inquiry into the cause of morbid processes in the body. In the middle of the nineteenth century, "physiologic medicine" came to the fore. Magendie, Henle, Virchow and others began to interpet the signs and symptoms of disease in terms of function. Experimental methods in medicine became more and more important. Soon bacteriology was born (Pasteur) to be followed by advances in our knowledge as the result of research in chemistry, physics, the roentgen technique, and endoscopic methods. The utilization of these laboratory methods, valuable as they are, was not without a baneful effect. Clinical discipline and the art of medicine suffered somewhat

Presented at the 93rd Annual Session of the Michigan State Medical Society, September 30-October 3, 1958, Detroit.

Portions of this article were published in the "Transactions and Studies of the College of Physicians of Philadelphia," Volume 27, Number 1, July, 1959.

as new laboratory procedures and methods of precision attracted more of the clinician's attention. This became manifest in observing the training of our young medical graduates. Fortunately, the pendulum is beginning to swing again toward a proper balance between clinical and laboratory methods in diagnosis and treatment. It has become obvious that clinical medicine must remain basically clinical—the human approach to human problems. This philosophy has been aided greatly by a return to the psychovisceral concept of body and mind developing together, and an appreciation of the clinical significance of the reaction of one upon the other—the concept of the need for consideration always of the "whole" (both mind and body). Certainly this concept is essential to the understanding of the so-called functional disorders.

The clinician is accustomed to the use of the term "functional disorder" to describe symptom configurations, not the result of demonstrable structural visceral change, but often occurring in association with disordered physiologic activity. It is recognized that medicine is on the threshold of great advances in our knowledge of this whole area of disturbed visceral function in relation to symptom configurations and to physiologic and structural visceral change. Methods of precision in orientation and diagnosis are beginning to emerge. The application of this newer knowledge is best achieved, not by the pure scientist, the psychiatrist or the experimentalist, but by the coordination of their efforts by the physiologically-minded organicist. The correlation of these additions to our knowledge of function in relation to patient behavior patterns should continue to remain in the hands of the physician who is steeped in clinical traditions and in clinical disciplines. Such background and training are essential to the over-all appraisal of disturbed physiology in relation to symptoms and signs. With such training there is less likelihood of errors in the understanding of the inter-relationships of symptom patterns, functional disorder, psychological derangement and organic disease.

Structural and Functional Inter-relationships.—

In the second Croonian lecture for 1950, Clark-Kennedy[2] clearly summarized a most acceptable philosophy dealing with psychovisceral inter-relationships. A quotation from Mohr[2] is pertinent:

> "There is no such thing as a purely psychic or a purely physical illness, but only a living event taking place in a living organism, which is itself alive only by virtue of the fact that, in it, psychic and somatic are united in a unity."

Fully recognizing the aforementioned wholeness (body and mind) in expression of altered function practically and at the bedside, the first step must be the carrying out of those objective studies that should rule out the structural or organic disease. A brief outline for practical orientation of the inter-relationshps between the organic and the functional may be considered at this time. There are four mechanisms which may be concerned.

1. Usually, organic disease gives notice of its presence initially as a result of disturbed physiology—motor, secretory, or vascular—because of stimuli arising in or near the disease process. The resultant subjective manifestations of disturbed function may not differ in any particular from complaints which are purely of functional origin. This is true since the physiologic disturbance of the part may be identical, whether the stimulus is local from organic disease, or whether it arises purely as a result of disturbed innervation. Certainly functional colonospasm may cause symptoms identical with sigmoidal diverticulitis or beginning obstruction from carcinoma of the sigmoid.

2. The symptom-configuration in organic disease is rendered more complex by the frequency with which anxiety and emotional tension are created by a knowledge of the presence of the organic lesion. In this way, secondary physiologic responses give rise to other symptoms, that is, the so-called functional overlay, often confusing the symptom-pattern produced by the organic disease. Innumerable examples may be given: (a) the overlay of emotional diarrhea, when the patient with ulcerative colitis is unduly disturbed emotionally; (b) the creation of high epigastric and low substernal discomfort due to the large magenblase from tensionally-induced aerophagy as a result of a knowledge of heart disease; (c) the lower abdominal discomfort, the result of a functional colonospasm in association with a recurrence of peptic ulcer.

3. The pain stimulus itself, if of great intensity, may cause sufficient disturbance of physiologic function to give rise to additional symptoms. It should be recalled that severe pain may affect

cardiac function if the heart is diseased (Gold et al[3]) or may have a deleterious effect on renal function (Jones,[7] Wolfe[16]). Causalgia is a good example of a painful disorder causing widespread physiologic disturbances and secondary pains.

4. Finally, in this discussion of structural-functional inter-relationships, one is confronted with the question of when, if ever, primary emotional tension may lead to organic disease. Nathaniel Hawthorne had this in mind when in the "Scarlet Letter" it was stated: "A bodily disease which we often think of as a thing apart and separate may after all be but a symptom of an illness in the spiritual part of our nature." Ample proof will be given of the effect of emotions on physiologic function and of the mechanisms of such action. Furthermore, we do know that hypothalamic stimulation and emotional shock can give rise to superficial organic lesions, like acute ulcer of the stomach or duodenum. Chronic peptic ulcer and ulcerative colitis are diseases which many believe may be the result of emotional tension. Without denying this possibility, it must be stated that proof is still lacking. I think it is of interest in this connection to mention that ulcerative colitis rarely occurs as a result of a continuous or recurrent motor disorder of the colon of emotional origin, that is, as an aftermath of the so-called irritable colon or mucous colitis. Furthermore, peptic ulcer disease is not commonly preceded by symptoms or signs to suggest a longstanding physiologic motor disorder of the pyloroduodenal region. Obviously the lack of antecedent physiologic unrest (presumably of emotional origin) does not preclude the possibility that these two severe organic lesions may not, in fact, be of emotional origin. It is merely emphasized that proof is lacking.

The Mechanism of Functional Disorders

At the outset, it should be realized that the physiologic disorders common to the gastrointestinal tract may be dependent upon influences other than disturbance of innervation of central or emotional origin. Chemical, hormonal, nutritional, and endocrinal influences, often acting via the vegetative nervous system, are also concerned with the complex regulation of organ function. The interplay of these factors is very complex and not well understood.

Other than primary neurogenic mechanisms, the endocrinal apparatus is probably most responsible for physiologic disorders of the alimentary tract. The pituitary-adrenal axis has received most attention in this regard. Pituitary hormones are released through hypothalamic stimulation. Adrenal hormones secreted in response to the discharge of hormones from the pituitary certainly exert a striking effect on gastric secretion and function (Gray and associates[5]), so that the adrenal steroids may very well be an important mechanism in the transmission of the effects of emotional stress to the digestive tract. The hypothalamus is, of course, the coordinating center, thus accounting for the interplay of humeral and nervous mechanisms responsible for coordinated physiologic function. Another common example of the role of endocrinal function in physiologic behavior patterns is that of so-called premenstrual tension. In many women, it is only during this premenstrual epoch that the symptoms of motor dysfunction of the alimentary tract occur. A good example is that of the irritable colon syndrome, which perhaps is even more common than migraine as a premenstrual symptom. The deranged endocrine balance occurring in association with hyperthyroidism often induces diarrhea as a result of secondary gastrointestinal hyperperistalsis. Innumerable examples could be given of so-called functional aberrations of digestive function which occur in association with endocrinal disorders.

Regardless of the actual *modus operandi,* most functional derangements of the alimentary tract can be attributed to the influence of emotional tension. The oft-repeated phrase, "the abdomen is the sounding board of the emotions," will bear further reiteration. No experienced gastrointestinal internist can deny the common occurrence of abdominal symptoms of emotional origin. Nevertheless, there remains a wide hiatus between the extent of existing knowledge in this field and its diffuse dissemination. This applies particularly to prevailing ignorance concerning the clinical characteristics of many functional disorders. Many of these are just as susceptible to concise description and classification as certain clinical entities of a structural nature.

The autonomic nervous system is intimately concerned with the regulation of all activity of the digestive tube and consequently the clinician must be familiar with its manner of activity in order to have an understanding of disordered function in relation to patient complaints and disease. The review of Thomas[13] nicely summarizes the present state of our knowledge of the autonomic nervous

system in relation to gastrointestinal function. Mention is made of the fading concept of the parasympathetics (vagus) and sympathetics as antagonistic influences which must be in good equilibrium in order that organ function be nicely coordinated. Increasing understanding of the neurohormones has been largely responsible for modification of concepts of autonomic nervous system function. Impulses over this system of nerves exert their effect by release of specific chemical substances. It is now known that all of the preganglionic and most of the parasympathetic postganglionic fibres release acetylcholine at their terminals, whereas most of the postganglionic sympathetic fibers release sympathin, now thought to be arterenal, and also epinephrine. Thus it has become customary to refer to cholinergic fibers or cholinergic effect and adrenergic fibers or adrenergic effect, rather than parasympathetic and sympathetic influence. Furthermore, the older concept of "parasympathetic, *versus* sympathetic" is no longer tenable since some postganglionic sympathetic fibers are cholinergic and some parasympathetic fibers are probably adrenergic.

It should be remembered that digestive functions may continue in the absence of extrinsic innervation of splanchnic and parasympathetic fibers by virtue of reflexes mediated through local nerve plexuses. However, good digestive function is best accomplished when impulses do arrive from higher centers over the cholinergic and adrenergic fibers. Although the thoracolumbar sympathetic nerves are thought to exert only a minor influence in regulation of gastrointestinal function, profound stimulation of these fibers may result in a decrease in functional activity. The parasympathetic system plays a more important role in the regulation of functional activity. The cutting of the vagus nerves may result in a cessation of gastric peristalsis for weeks or months, and a reduction in gastric acidity. The effect of vagotomy on intestinal motor and glandular function is not so striking. Here the autonomic plexuses evidently require less central guidance. Thomas well expresses the influence of the vagus as a means of transmission of central impulses, reinforcing the effect of reflexes mediated through the local nerves plexuses.

By turning our attention to the hypothalamus, the mechanism of influence of the emotions on visceral function, becomes clear. By virtue of nuclei and intercommunicating fibers, the hypothalamus is truly the center of coordination of emotional experience with the sympathetic nervous system and visceral function. McDonald[9] aptly called the hypothalamus the "head ganglion" of the autonomic nervous system. Connections between the cerebral cortex and the hypothalamus via the thalamus are well known. The areas of the cortex concerned with emotional experience have ready access to the hypothalamus (Murphey and Gellhern[11]), where connections with centers for sympathetic visceral control are made, thus completing the circuit responsibe for disturbed visceral function of emotional origin. Of great importance clinically is the possible development of so-called conditioned reflexes concerned with emotional responses (Babkin[1]). Conditioned emotional responses have been repeatedly demonstrated in animals and unquestionably occur in humans. This concept, so important to an understanding of psychovisceral disorders, is succinctly expressed by Thomas:

> "The development of a conditioned reflex is a demonstration of a fundamental law of nervous activity, namely, that once a chain of neurons has been made to function in unison, it comprises a path of low resistance within the central nervous system over which impulses will flow with greater ease the more the pathway is used. . . . Once a stimulus has found its way from one of the peripheral sense organs to one of the viscera by way of the central mechanism for emotional expression, a second (later) stimulus will tend to take the same path. If the stimulus is repeated often enough, the emotional response and the visceral reaction may become permanently associated, and the reaction may occur whenever that particular stimulus is exhibited. Indeed, any circumstances that are regularly associated with the stimulus may by themselves become effective stimuli."

In order to facilitate the understanding of functional disorders it is well to look upon emotions as having two components, psychologic and physiologic. A common emotion is that of fear aroused by a threat to life because of the innate instinct, self-preservation. The physiologic components comprise reactions giving rise to mobility for action, that is, running away or fighting it out, and complaints like palpitation, sweating, diarrhea, tachycardia, may appear.

Ample clinical experimental evidence has been supplied by Wolf,[16] Almy and Grace and many others in support of the concept of emotional physiologic disturbances causing subjective symptoms (so-called functional disorders). Visceral response to emotional trauma has been observed in suitable subjects with external fistula, with colostomy,

ileostomy, and gastrostomy stomas, by endoscopic, balloon and roentgen observations of the stomach and low sigmoid. Various disturbances of motility, secretion and blood supply have been noted. Japanese workers (Ikemi and co-workers[6]) have recently added support to the concept of emotional tension as a cause of so-called functional disorders utilizing hypnosis—thus adding perhaps more precision to the creation of a specific type of emotion created experimentally. Under these circumstances, both balloon and roentgen observations of physiologic visceral behavior were observed in normal and neurotic persons.

Further, acceptable proof for the emotional origin of many functional complaints is at hand in the practice of any gastroenterologist. One of the purest examples is that of so-called functional or emotional diarrhea, which will be described in more detail later.

Character and Classification of Local Physiologic Response to Emotional Stimuli.—The most common subjective symptom of a functional disorder is pain or something akin to pain. It is now generally recognized that true visceral pain in the abdomen usually is the result of changes in tension of smooth muscle of the alimentary tract, for example, spasm (hypertonicity) or distention, and that impulses initiated in this way are carried over afferent visceral fibers accompanying the sympathetics. It has been shown conclusively that stimuli of emotional origin are quite capable of giving rise to sufficient disturbance of motor physiology to set off pain impulses. Of course, there are many conditioning factors, such as strength of stimulus, pain threshold, and concomitant inflammation, which modify the intensity of the complaint. A discussion of these is not essential to the present thesis.

With advances in our knowledge concerned with the character of physiologic behavior patterns in relation to emotional change, it becomes increasingly desirable to develop a working classification or formula. One way in which this may be done is on the basis of the nature or character of the disturbed physiology. One might divide the physiologic disorders into three types, those characterized by: (1) hyperfunction, (2) hypofunction and (3) mixed types. Pending the accumulation of additional factual date, the accompanying simple schemata are presented.

This outline is not given with the idea that it can be used as a fixed classification, but rather to aid in clear thinking. It is believed that the physician should try to classify functional disorders based on the nature of the physiologic derangement when at all possible. It is in this way only that intelligent therapy can be applied. More important, the clinician must keep abreast of advances in our knowledge of psychovisceral disorders. This can be best accomplished by attempting to correlate in every instance the type of physiologic derangement, as determined by objective findings with the existing symptom configuration and the character of emotional charge. A schemata like the above seems to be the closest approach to a classification of the type of physiologic disorder which is now possible. Only prolonged observation by well-trained clinicians will determine how clear-cut and well-defined physiologic derangements of emotional origin really are. We cannot be sure how often secretory and motor hyper- and hypofunction coexist or how often one segment of the tract is overly active while another is underfunctioning as a result of the same emotional stimulus.

Relation of Emotional Charge to Type of Physiologic Disorder.—One may well ask: do specific emotions tend to initiate impulses which consistently cause a specific or uniform physiologic or somatic disturbance in the same person or in all persons? Study of conditioned reflexes previously mentioned (Murphey and Gellhorn[11]; Babkin[1]) support in some measure such a concept. This linkage of the emotional stimulus and the visceral response is the result of the activation of the same neuronal chain and the emergence of conditioned reflexes, which may well result in identical visceral reactions if the same stimulus is subsequently applied. Clinical observations support this concept. However, much remains to be done before various emotional trends with their complexities can be closely linked to constantly recurring visceral behavior patterns. In many of the reports on experimental human subjects, one is impressed with the very superficial nature of analysis or classification of the emotional content or charge alleged to be responsible for the visceral reaction. Psychiatry is in need of more factual physiologic knowledge before the precise correlation of specific emotions with consistent visceral behavior patterns is possible. However, great advances in our knowledge

I. HYPERFUNCTION

	Physiologic Behavior	*Functional Disorder*	*Symptoms*
MOTOR	1. Hypertonicity (segmental spasm)	Hypertonic colon Hypertonic ileum Pyloroduodenal irritability	Pain, constipation
	2. Hypermotility (general) Gastric hyperperistalsis	Rapid G.I. transit Rapid stomach emptying	Emotional diarrhea Epigastric distress
	3. Dysrhymthmia	So-called cardiospasm	Pain, Dysphagia
SECRETORY	Gastric hypersecretion	Hyperacidity (duodenal ulcer) (functional gastrosuccorrhea)	Regurgitation? Vomiting? Heartburn?
	Colonic mucus Hypersecretion	So-called neurogenic mucous colitis	Mucous discharge
MOTOR and SECRETORY	Hyperactivity Synchronized	Gastric hypermotility and hypersecretion	Epigastric distress
VASCULAR	Engorgement Congestion	Possible erosion Superficial ulceration	Related to concomitant motor disorder

II. HYPOFUNCTION

	Physiologic Behavior	*Functional Disorder*	*Symptoms*
MOTOR	Hypotonus Muscular Flaccidity Muscular Relaxation	Esophageal stasis (Achalasia) Gastric stasis Ileal stasis Constipation	Dysphagia Epigastric Fullness Anorexia Nausea Constipation
SECRETORY	Gastric Hyposecretion	Functional achlorhydria	Nausea(?) Anorexia(?)
VASCULAR	Ischemia	Concomitant of other disorders	?

III. MIXED FUNCTION

Evidences of hyperfunction and of hypofunction simultaneously in different segments of alimentary tract.

of these inter-relationships have been made. Practically, one may generalize concerning some classical psychologic attitudes. Certainly the "fighting" attitude, an emotional reaction which is characterized often by such modes as hostility, resentment, and aggressiveness, has been found to be quite often associated with visceral functional disorders characterized by spasm, pain, and hypersecretion. The opposite psychologic reaction, commonly referred to as "the running away" attitude, the attitude of "giving up" and the emotions associated with frustration, sadness, and grief are more likely to be linked to visceral hypofunctional responses. Symptoms of anorexia, nausea, and constipation are common. These are very crude examples of linkages between emotional charges and visceral function, but they do represent a beginning in this important phase of clinical medicine.

The factors responsible for the determination of the *site* of the physiologic visceral disorder in terms of emotional stimulus remain to be determined. Why is the esophagus affected in some (cardiospasm), the pylorus in others (pseudo-ulcer syndrome), the small intestine in others (emotional diarrhea), and the colon in still others (irritable colon)? Why do some persons persist in having a monosymptomatic disorder, for example, pyrosis, while others experience at different times functional derangement of all segments, perhaps one after another? Phylogenetic factors, genetic, familial, and early environmental influences are unquestionably concerned. Once a neuron circuit connecting the cerebrum with a viscus is used, the laws governing conditioned reflexes undoubtedly apply. The character and strength of the emotional stimulus play some part, perhaps in the

extent or degree of disturbance of visceral function, just as strength of pain stimulus determines the intensity and degree of radiation of subjective pain. Multiple sites of visceral dysfunction perhaps means only greater complexity and number of emotional charges—a greater number of pathways or circuits of least resistance or a greater number of conditioned reflexes. Time may well reveal the mechanisms involved in multiple concomitant as well as sequential types of funtional disorders.

Deep-seated mental disorders, particularly the organic psychoses, are in need of further evaluation in relation to frequency and type of occurrence of functional visceral disorders. Margolin and his associates[9] touch on this fundamental relationship in reporting the findings of dissociation of gastric function in relation to conscious and unconscious conflict states in a fistulous human subject. It is my impression that functional derangements of the alimentary tract are either less common in association with the psychoses than with the psychoneuroses or they have been more frequently overlooked in psychotic persons. The experienced clinician will at once become suspicious of a psychotic reaction, often schizophrenic in character, with an initial complaint of offensive breath or body odor or intestinal odors—symptoms which, in reality, cannot be substantiated by objective observation. Yaskin has stressed and frequently I have confirmed the occurrence of a constant bitter taste in the mouth in association with depression. Constipation and bad breath are other rather common complaints mentioned by the depressed person. However, too little is known and further studies are needed concerning the types of physiologic visceral disorders in association with the psychoses.

The Future of Orientation of Functional Disorders.—It is obvious that we are beyond the threshold of a better understanding and more concise orientation of the so-called functional disorders. Advances have been the result of increased interest on the part of physiologists, advances in psychiatric techniques and their application to non-organic psychologic disorders. Perhaps of even greater aid has been the development of a group of younger physicians basically trained in clinical disciplines, but with interest and training in psychovisceral research as well. I am confident that advances in our knowledge in this broad field of psychovisceral disorders will be steady and moderately rapid. Furthermore, absolute experimental proof of the important role of emotional tension in the pathogenesis of certain visceral diseases may be forthcoming. The possibilities for worthwhile research in these areas are limited only by subject interest and manpower. More rapid advances will occur if collaborative effort is more often practiced. I refer to combined studies by teams composed of a seasoned clinician, a physiologist, a psychiatrist, a radiologist, and an experimental surgeon. It is hoped that soon functional psychovisceral effections will be amenable to orientation and classification, which will be as satisfactory as the present pathologic classifications of organic disease.

A Platform for the Clinician

Clinical Orientation

For the diagnosis and care of patients suspected of having a functional disorder, I submit the following formula as a procedural outline which may prove helpful:

1. *Critical Analysis of Subjective Complaints.*—This should result in the establishment of an impression of the type and site of disturbed physiology, which in turn determines for the trained clinician the objective studies required and the order in which they should be performed.

2. *Objective Examinations.*—Such studies intelligently selected must not be neglected and certainly should not be abused. Two purposes are served. First of all, organic disease must be excluded as the cause of symptoms. Equally important the exclusion of carcinoma or other serious visceral disease serves the purpose of effective assurance of the patient in order to dissipate existing anxiety. Second, in the absence of structural disease, the objective examinations may serve to define clearly the character, site and extent of the functional derangement. Since most functional disorders are characterized by abnormalities in motor function, roentgen study is of greatest help.

3. *Appraisal of Personality and Emotion.*—In taking the history an appraisal of the emotional characteristics is ever in mind. At this time, relationships are sought between subjective complaints and emotional aberrations of any type. Environmental influences are carefully appraised. Habit patterns are recorded, as a measure of personality behavior trends and of degrees of tension. Eventually, an effort is made to classify the per-

sonality type as well as the character of emotional tension (fear, hostility, anger, frustration. . . .). One decides first of all whether the diagnosis of psychoneurosis is justified and, if so, obviously the type is designated as a part of the diagnosis.

From the standpoint of personality type, the simple classification recommended by Yaskin[15] is suggested:

(1) average normal
(2) neurotic (hysterical, hypochrondriacal, hypersensitive or compulsive-obsessive)
(3) syntonic (cycloid, extraverted)
(4) schizoid (shut-in, introverted)
(5) paranoid
(6) rigid
(7) constitutional psychopathic
(8) epileptic

If a neurosis is present it is classified. The more common types associated with functional gastrointestinal disorders include anxiety neurosis, conversion hysteria, anxiety hysteria, and compulsive-obsessive reaction. In many instances an actual psychoneurosis is not present. Rather, the simple appellation of emotional tension and its character will be applied and the reasons for this constitute a most important facet of the examination. One must also keep in mind a phenomenon closely allied with emotion, namely mood. Riggs[12] likens mood to the tides with their periodic change.

Floodtide is compared with exultation and ebbtide with dejection. Tidal swings in feeling states are universal. Individuals differ as to their depth and frequency. These modal variants may also determine changes in psysiologic behavior patterns in the alimentary tract and need to be borne in mind. In the most extreme form of modal change, an actual psychosis is present, namely the manic-depressive psychosis.

4. *The Complete Diagnosis.*—The diagnosis of a functional disorder should be concise. It ought to comprise first a precise description of the type of physiological disorder, for example, aerophagy (magenblase syndrome) or functional enterocolonopathy (irritable colon syndrome) or pyloroduodenal irritability. Second, the completed diagnoses will classify the emotional state. This shall comprise, when possible, the (1) personality type, (2) the type of psychoneurosis, if any, and (3) the dominant emotions and moods.

5. *Therapeutic Principles.*—Attention to the organ or system derangement will follow orthodox lines. This embraces physiologic rest of the part, accomplished usually by diet and relaxing medication. Specific therapy will depend on the character of the physiologic disorder.

In functional derangements, treatment directed toward the organ *per se* must be looked upon as being purely palliative. Specific treatment is the adoption of measures directed toward removal of the cause. In these instances, unless some constitutional or endocrinal abnormality exists, emotional and tensional factors are at fault. A careful explanation of the mechanism of symptoms has great importance. Then specific therapy for the relief or amelioration of the emotional tension is undertaken. The institution of measures for achievement of better mental hygiene, in most instances, may be carried out by the psychoviscerally-minded internist. Psychotherapy likewise entails attention to environmental problems, the removal of tensions where they exist, and finally an attempt to have the patient achieve a greater degree of equanimity. If resistance is encountered or the patient proves refractory, then a psychiatrist will need to make a more concise psychologic appraisal and organize therapy accordingly.

Common Functional Disorders

If one needs to stress the importance of a better understanding of functional disorders, it is necessary only to refer to their incidence. These affections give rise to a great number of office consultations with the general practitioner, and well over 50 per cent of office visits to the gastrointestinal internist. Let us examine briefly some of the more common functional disorders of the alimentary tract. In my experience, the following conditions make up the great bulk of functional gastrointestinal diseases. They are arranged in the order of their frequency.

Aerophagy
Functional enterocolonopathies (intestinal neuroses)
  (a) So-called irritable colon (enterocolonospasm)
  (b) Mucous colitis
  (c) Emotional diarrhea
Pyrosis
Pseudo-ulcer syndrome
Functional nausea and anorexia
Functional regurgitation and vomiting
So-called cardiospasm (leading to mega-esophagus)
Biliary dyssynergia
Disagreeable taste (often bitter), bad breath, etc.
Rumination
Hysterical bloating (hysterical abdominal proptosis).

By way of example, several of the more common disorders will be described briefly.

Aerophagy

Symptoms the result of air swallowing comprise the most common gastrointestinal functional complaints, yet frequently these complaints are misinterpreted. The swallowing of air is a universal practice. Excessive air swallowing may arise in many ways. It occurs while eating, if food is gulped, or if food contains an excess of gas. An excess of air is ingested if liquid is improperly swallowed, or if gum is chewed. In some patients, smoking gives rise to excessive swallowing. Most commonly, aerophagy is merely the result of frequent swallowing when not eating or drinking, as a reaction to emotional tension, and once initiated, it may easily become a habit. Air-swallowing may be associated with dry mouth or with hypersalivation. Whether or not symptoms are produced (and the character of the symptoms) depends upon what happens to the swallowed air. Most of it is not absorbed owing to its high nitrogen content. If the air is not eructated, the greater amount passes down through the alimentary tract and is expelled.

Importance of Aerophagy to the Gastroenterologist.—Obviously, the symptoms of aerophagy are referred primarily to the digestive tract. It is unfortunate that air-swallowing frequently occurs as a functional overlay of organic disease. Excessive air swallowing occurs as a reaction to pain produced by a structural lesion, or as a result of anxiety induced by the morbid process. The gaseousness which accompanies most organic disease is of this origin. This is not always appreciated, for example, many aerophagic persons are quite disappointed when gaseous dyspepsia is not alleviated by removing a diseased gall bladder, because the physician or surgeon has not explained that operation will not necessarily relieve the gaseousness.

Belching is almost always the result of aerophagy. It may be the only clinical manifestation in the fortunate person who eructs most of the swallowed air before it has had a chance to bring about changes in intravisceral pressure. The anatomic shape of the stomach and the ease with which the sphincter at the cardia can relax probably determine whether swallowed air is eructated or whether it remains in the stomach or passes on down the alimentary canal to cause other annoying symptoms. The aerophage who easily belches his swallowed air may annoy his neighbor, but he suffers little.

Early postprandial pressure, bloating, and discomfort in the epigastrium, substernally and at the left rib margin, are most commonly the result of aerophagy. These symptoms are due to intragastric pressure changes induced by the large "magenblase." Symptoms of this sort are the cause of frequent visits to the physician. Angina pectoris, hiatus hernia, peptic ulcer, cardiospasm, and gallbladder disease are often suspected by the physician.

Gaseousness, characterized by borborygmus, generalized abdominal cramping, bloating, and distention, is commonly the result of aerophagy. Flatulence, formerly attributed most often to intestinal putrefaction, fermentation, or constipation, is likewise of aerophagic origin in most instances.

Importance of Aerophagy to the Cardiologist.—Symptoms caused by a large "magenblase" often suggest heart disease to the layman. The location of the pain, its radiation, and the associated sensation of oppression in the chest, or smothering, may closely simulate angina pectoris.

Often the first suspicion of, or actual knowledge of, heart disease gives rise to considerable anxiety: the latter may actually initiate excessive air swallowing. It is common experience to note that the gaseousness in cardiac patients dates its onset from the patient's first knowledge of the presence of a heart affection. Aerophagy engrafted on angina pectoris further complicates the symptom pattern and unquestionably, in some patients, actually increases the frequency and severity of attacks of angina. Every cardiologist is or should be, familiar with this relationship, for it must be given consideration frequently in the treatment of true angina pectoris.

Importance of Aerophagy to the Surgeon.—The most common cause of abdominal distention in the immediate postoperative period is excessive air swallowing. Before this was recognized, serious complications occasionally arose. It is highly probable that fatal, so-called gastric dilatation was of this origin in many instances. In recent years, the improvement in anesthesia, the prevention of dehydration (dry mouth), and the more sensible use of opiates have done much to prevent post-

operative distention due to air swallowing. When it does occur, prompt gastric intubation usually prevents the development of serious consequences.

In intestinal obstruction, regardless of its cause, a considerable part of the gaseous distention is the result of swallowed air. Even though the tension above the point of obstruction is relieved by the Miller-Abbott tube, it is occasionally necessary to put an additional tube into the stomach, to prevent air which is continuously swallowed from causing further distention. The presence of the intestinal tube actually causes air swallowing in many patients. It is likely that attacks of intestinal obstruction due to adhesions occur more frequently in the aerophagic person as a result of kinks produced by the increased gaseous content of the intestine.

Importance of Aerophagy to the Psychiatrist.—Alert psychiatrists are becoming aware of the significance of aerophagy in the mechanism of subjective complaints in the emotionally-tense person. Certainly it is common experience to note the direct relationship which exists between the state of emotional tension, on the one hand, and the degree of gaseousness and symptoms resulting therefrom, on the other. I think it is as simple as this: *excessive swallowing is a frequent reaction to nervous tension.*

Diagnosis of Aerophagy.—Its detection is easy. Aerophagy should be suspected always when the symptoms suggest gaseousness in any form. In taking the history, the most common causes of excessive swallowing should be sought. The possibility of aerophagy should be considered in all emotionally-tense patients who have abdominal complaints.

During the course of the interview and physical examination, which often renders nervous persons more tense, the act of frequent swallowing will be often observed in the aerophagic person. On percussion, an area of tympany in the region of the left hypochondrium, the result of a large "magenblase," may be outlined, or excessive gas content in the intestine may be detected. The observing fluoroscopist may likewise discern the presence of excessive swallowing of air during the barium meal study, and demonstrate a larger than normal "magenblase" on the film.

Treatment.—The cure of aerophagy is more difficult than its detection. Alleviation rests with measures adopted to eradicate the cause. If air-swallowing is due to a cause other than reaction to nervous tension, such as gum-chewing, excessive smoking, or faulty mastication, its eradication may be easy. When aerophagy is of nervous origin, usually the cure is more difficult. Assurance of the absence of cancer or heart disease must be based on appropriate studies. An explanation of the manner in which symptoms may be the result of excessive swallowing is given. Likewise, the relationship between nervous tension and swallowing is discussed. Judicious psychotherapy will prove of greater value than diets or medication, although a sensible dietary restriction and placebos may prove of some benefit in the original outline of therapy.

Intestinal Neuroses

The intestinal neuroses rank a close second in the order of incidence of functional disorders of the alimentary tract.

Emotional Diarrhea.—This is not the most common intestinal neurosis, but it is the most classic and the easiest of description.

Through the ages, diarrhea has been known to occur as a reaction to fear. In its classic form, chronic emotional diarrhea is often associated with the reaction of fear or guilt. Commonly the symptom pattern is characteristic. Diarrhea is usually the only symptom, unaccompanied by any great discomfort, except possibly urgency, and unassociated with constitutional symptoms. The diarrhea may be of long duration (in some instances weeks or months), yet nutritional deficiency is rarely encountered. Usually the stools are watery or mushy and contain no pathologic products, such as blood or pus. Clinically, emotional diarrhea closely simulates gastrogenous diarrhea, or the diarrhea of thyrotoxicosis.

The roentgenologic pattern is likewise classic. Emotional diarrhea causes more rapid gastrointestinal motility than any primary organic disease of the alimentary tract. After ingestion of barium, the head of the meal may be in the rectum within one-half to an hour, with barium still remaining in the stomach. No abnormality of the intestinal lumen or mucosa is seen.

Definitive treatment comprises intelligently-applied psychotherapy. The emotional quirk is often obvious, and not rarely the internist may be able to recognize and to assist in the eradication of

its cause. If the latter is not obvious, a psychiatrist may be needed. A bland diet and physiologic doses of a cholinergic agent with phenobarbital prove efficacious until psychotherapy has become effective. The prescription of opiates for the ambulatory patient, in order to alleviate the diarrhea, or because of the "fear of soiling," is a dangerous practice. Habituation to opium may result.

Colonic Neurosis (Irritable Colon, Spastic Colon, Neurogenic Mucous Colitis).—The term "irritable colon" is now commonly applied to a hyperfunctioning colon, which gives rise to symptoms. The most striking functional derangement is that of hypertonicity or spasm of the colon, particularly the distal colon. Hypersecretion of mucus may accompany the motor change, and if mucous discharge is a prominent feature, the label "neurogenic mucous colitis" may be appropriate. Colitis is a poor term, since actual inflammation of the colon can rarely be demonstrated. Another evidence of colonic hyperfunction may be that of excessive absorption of fluids from the right colon, accounting to some extent for the very great dryness of the stools which is seen in some cases. Even the designation "colonic neurosis" is not adequate, as more recent study suggests that the small intestine commonly shares in the physiologic dysfunction. This may be manifest as intermittent small intestinal hypermotility, giving rise to diarrhea. Not infrequently, one notes roentgen evidence of hypertonicity and spasm in the small intestine, as well as in the colon. (Kalser and coworkers[7]).

Symptom Pattern.—usually this ailment begins in youth or early adult life. One of the predominant features is the intermittency or periodicity of symptoms. Constipation is the most common manifestation and the irritable colon is one of the very common causes of constipation. This symptom is rarely present constantly, as in simple constipation, (the result of faulty habit). It may be present for days or weeks, alternating with periods of normal bowel function, or with short bouts of diarrhea. The latter is likely to occur following the use of ordinary laxatives or enemas. The stools are often pathognomonic in their appearance. Small hard scybala or thin cylindrical pieces are typical. There may be a concomitant mucous discharge.

The second symptom of importance is pain, often related to defecation and commonly relieved by a bowel movement. Usually the site of pain is in the hypogastrium, and often in the lower left abdominal quadrant. In its most severe form, the pain of diverticulitis or of beginning colonic obstruction from neoplasm may be simulated.

Functional disturbances of other systems frequently coexist with the irritable colon syndrome. These include particularly disturbances of menstruation and symptoms of irritability of the lower genito-urinary tract.

Emotional Pattern.—It is recognized that all instances of the type of colonic dysfunction under discussion are not entirely the result of emotional stress. Any mechanism capable of affecting the innervation of the intestines could account for disturbed physiology with symptom production. Nutritional, hormonal, and endocrinal factors undoubtedly play a part in the pathogenesis in some cases. Nevertheless, observation of these patients through the years causes one to assign to emotional tension the most important role in etiology. This does not mean that all of these patients are psychoneurotic. I believe most people experience this type of dysfunction in a mild form from time to time. The occurrence of colonic dysfunction and its severity are dependent upon the strength of the stimulus and the susceptibility of the involved part. Physical fatigue and prolonged tension may be sufficient to bring about the functional derangement even in subjects who are well-balanced emotionally. Anxiety and various disturbing life situations are noted to be present in many patients. Often attacks may be related to specific emotional incidents. Subjects who experience severe mucous colitis in association with the motor dysfunction are more often found to be profoundly neurotic. However, true mucous colitis is relatively rare, when compared with the incidence of the so-called irritable colon, characterized by motor dysfunction alone.

Diagnosis.—It is not possible to differentiate the irritable colon from organic colon disease, particularly neoplasm, on the basis of symptom analysis alone. For this reason, a definitive diagnosis of an intestinal neurosis is made by exclusion. Objective examination, particularly the digital examination of the rectum, fecal analysis, sigmoidoscopy, and roentgenologic study, is needed. In the presence of typical symptoms, the exclusion of organic

disease in the obviously tense person is sufficient to make the diagnosis. The objective examinations referred to will often indicate the presence and the degree of colonic dysfunction. An effort is made to classify the type of emotional disturbance.

Therapy.—As in all functional disorders, the basic therapy is removal of the cause when possible. Measures adopted to relieve the emotional stress, together with, in many patients, the prescription of physical rest or environmental change (or both), will bring about symptomatic relief. Intestinal rest with a sensible bland diet, together with mild sedatives and drugs to inhibit the overactivity of the parasympathetic innervation, are usually prescribed with benefit. Advice concerning the deleterious effects of strong laxatives, enemas, and irrigations is an essential part of the regimen. Small doses of one of the hydrophilic colloids, the use of non-irritating food laxatives (prune juice), and at times mineral oil, will usually suffice to overcome the periodic constipation.

Heartburn (Pyrosis)

One of the most annoying functional disorders is pyrosis. It is annoying to the physician because of the imminent need to exclude organic disease and because functional pyrosis is difficult to cure. Usually the patient describes the sensation as a feeling of warmth or heat, experienced substernally or in the epigastrium after eating. In the practice of the gastrointestinal internist, its incidence as a chief complaint is high. Tumen and Cohn[14] recently recorded its occurrence in 22 per cent of 120 patients.

Mechanism.—Chester Jones and others have experimentally demonstrated one mechanism capable of producing pyrosis, that is, neuromuscular changes in the lower esophagus. These changes can be brought about by balloon distention, or the induction of muscular spasm by the rapid introduction of fluids into the lower esophagus. Regurgitation accompanies the pyrosis in some experimental subjects when antiperistaltic movements in the esophagus are striking. The frequency of heartburn in hiatus hernia and in insufficiency of the cardia is, in all likelihood, to be explained in this way. Because of the experiments—indicating that pyrosis may be the result of disturbed motor physiology of the lower esophagus, many physicians have assumed that the symptom is always of this origin. Further exploration of other possible causes for heartburn is needed. The complaint is very common, and evidences of esophageal dysfunction are not always detected by roentgenologic or clinical study so that other possible mechanisms should be sought. One should not dismiss the possibility that pyrosis may be the result of the same mechanism which many believe accounts for peptic ulcer distress, namely, changes in gastric and duodenal tonus and motility. Supporting this thesis is the observation that in some patients with duodenal ulcer, the chief complaint is that of pyrosis, rather than the more usual "gnawing hunger" sensation. The rhythm of occurrence of the symptom late after meals with food relief suggests that the burning may be looked upon as a substitute for the usual sensation of dull ache during ulcer activity. Late postprandial pyrosis, in the absence of ulcer, may possibly be the result of a functional disturbance in the pyloroduodenal area rather than in the esophagus.

Clinical Configuration.—Functional pyrosis may be a lifelong complaint, occurring almost daily in some patients. Often it is of irregular, periodic occurrence, set off by some precipitating factors as faults in eating, or overindulgence in tobacco or alcohol. Its occurrence is almost always postprandial (one-half to two hours), and temporary relief, as in ulcer distress, is afforded by antacids and food. Belching, nausea, and regurgitation are common accompaniments. Tensional factors seem to be of most importance as precipitating influences. Emotional agitation and nervous irritability are frequently seen in the patient with functional pyrosis. In some instances, a profound, deep-seated psychoneurosis is present.

Treatment.—After the exclusion of organic disease, correction of faults in hygiene and psychotherapy constitute the most important items in treatment. The latter is most often needed in patients with constantly recurring pyrosis, unrelated to hygienic faults. The internist may be of some help in the correction of obviously superficial tension, but deep-seated therapy will be required in the truly psychoneurotic person. A comprehensive psychologic analysis of a group of patients who exhibit pyrosis, as a "monosymptomatic neurosis"

(Continued on Page 2006)

Lesions of the Macula and Perimacular Region of Involutional and Senile Origin

By A. J. Elliot, M.D.
Toronto, Canada

ALTHOUGH the diameter of the macula is only about 2 mm., this tiny circle at the posterior lobe of the eye can exhibit a bewildering range of clinical findings. In investigation of macular lesions, the most important symptom of which a patient complains is lack of his central vision in varying degree. There are few diseases of the macula which do not produce some significant loss of vision, thus bringing the patient for an examination. It is important to ascertain how long the vision has been defective in one or both eyes, and whether the defect in vision was gradual or rapid in onset. Patients with lesions of the macula almost never complain of pain in or around the eye. In recording the history, the patient's other medical problems must be noted. It has often been said that patients with lesions of the macula will complain of micropsia or macropsia or alterations in the color of an object; however, in my experience, this symptom is difficult to elicit, and most patients are not aware of changes in size of an object.

Methods of Examination

Subjective testing of the visual acuity is one of the most important means of diagnosing lesions of the macula (especially the incipient macular lesions) because, so frequently, a patient will complain of missing a letter but can see the adjacent letter by changing the fixation of gaze slightly eccentrically. When testing the visual acuity, it is important to record the visual acuity accurately with and without spectacles, and with a pinhole disc after the vision has been determined. So frequently the busy ophthalmologist does not make use of this simple optical aid which has proved to be of especial help. One can usually suspect a macular lesion from the patient's responses when recording the visual acuity with a multiple pinhole disc before the patient's eye. Lesions of the macula are most common among the elderly age group at which time other defects in the optical media are frequently present, such as incipient cataracts. At times, it is a problem to determine whether the visual defect is due, in the first instance, to the developing lens opacities or to an incipient macular degeneration. If one uses the pinhole disc, lesions of the macula may be suspected early in the examination by virtue of the fact that vision is almost invariably poorer with a pinhole disc than without it, while if the visual defect is primarily due to early lens changes, the visual acuity may be improved slightly in utilizing the pinhole disc.

However, this is not always the case. It is well known that with lesions affecting the papillomacular bundle, dense cortical opacities similarly result in the decrease of vision with the pinhole disc. Nevertheless it puts the ophthalmologist on his guard to look for some defect posteriorly rather than in the anterior segment of the eye.

The question of carrying out the ophthalmoscopic examination through the undilated pupil or through the dilated pupil is a matter of individual preference. I know that most experienced ophthalmologists can carry out a satisfactory ophthalmoscopic examination without dilating the pupils. However, it has been my practice and teaching to dilate the pupils in all cases, excepting in the known glaucoma patients.

A study of the visual fields will always reveal a central scotoma of a smaller or larger size, and this should be carried out as a matter of procedure in all patients where there is significant defect in vision. However, from a practical point of view, in the routine of a busy practice, this examination is usually time-consuming and there is a tendency to omit this part of the examination. It has been my practice to do central and peripheral fields on all patients in the examination chair using a small white-headed pin, rather than move the patient over to the tangent screen. I

From the Department of Ophthalmology, University of Toronto, Toronto General Hospital, and Sunnybrook Hospital, Department of Veteran's Affairs.

Read at the Michigan State Medical Society, Detroit, Michigan, October 2, 1958.

think that this white-headed pin is a most useful adjunct in the ophthalmologist's armamentarium, and a scotoma can be quickly determined with reasonable accuracy sufficient to be of value in establishing a diagnosis. Of course, for record purposes, it is necessary to repeat the test on the tangent screen when this is required, especially if the findings of the visual field defect are being studied serially at intervals.

Recently slit-lamp microscopy has been advocated as an aid in the diagnosis of lesions of the retina. Goldmann[2] thinks that a diagnosis can seldom be correctly made in patients where the symptoms and objective findings are not pronounced without the aid of the slit-lamp microscopy. Similar, opinions have been expressed by Sorsby;[10] however, I have found that this type of examination is somewhat difficult to do with facility. I do feel that fundus photography is of real assistance in the following of many cases, and helps to determine with accuracy whether the lesion is increasing or decreasing in size.

In certain selected cases, the patient may be referred to a center for study of the uptake of radio-active phosphorus, especially if a malignant tumour is suspected in the posterior pole of the eye. Numerous studies have appeared the past few years, and a suitable probe has been designed to use at the back of the eye. Thompson[11] at the University of Toronto has recently reported his results in sixteen tests with the posterior counting of probe. He feels that this test is useful in the diagnosis of suspicious macular lesions, but it does not take the place of careful study, clinical judgment, and experience.

Transillumination of lesions in the region of the macula is difficult and is frequently not a reliable diagnostic aid for intraocular malignant lesions.

Lesions Affecting the Macula

It is, of course, impossible to discuss all the lesions affecting the macular area in this short space. In an effort to mention the more important ones, we shall divide these into two groups: (1) elevated, and (2) non-elevated lesions of the macular area.

Elevated Lesions of the Macular Area

Probably the most common elevated lesions of the macular area in the old age group is senile disciform degeneration. The disease usually occurs in the sixth decade of life and is characterized by a sub-retinal hemorrhage in the central area. A macular hemorrhage raises the retina into a mound varying from half to several times the size of the optic disc. In the advanced cases, there is a large mass in the macular area which projects for several dioptres, usually grey or yellowish-white in color, and hemorrhages are frequently present in the retina around the lesion. It is frequently present in the fellow eye in the early or late stage. This condition must be differentiated from malignant melanoma of the choroid which is sometimes difficult to do. Reese and Jones[8] studied 214 patients suspected of having a malignant melanoma of the choroid and of this group, twenty-one (slightly less than 10 per cent) of the patients did not have a malignant melanoma as proved by the subsequent course of the disease. Seven patients showed sufficient pathologic changes in the macular area of the fellow eye to give confirmatory evidence. This indicates the importance of examining the fellow eye. In a group of twenty-three eyes studied at the Registry of Ophthalmic Pathology of the Armed Forces Institute of Pathology in Washington, Frayer[1] found thirteen of the eyes had been enucleated because of the mistaken diagnosis of malignant melanoma. Frayer feels that removal of an eye for suspected malignant melanoma, which later proves to be a disciform degeneration of the macula, is occasionally unavoidable with our present diagnostic techniques.

In younger persons, juvenile disciform degeneration of the macula (which is similar in appearance to senile disciform degeneration) may occasionally simulate a tumor. Adler† thinks that many of these patients, in reality, are suffering from inflammatory choroiditis.

Malignant Melanomata.—In my experience, malignant melanoma in the region of the macula is rare. Most elevated lesions in the region of the macula are either from inflammation or as a result of disciform degeneration, but are frequently diagnosed as a possible malignant melanoma. In the younger adults, the elevated inflammatory lesions affecting the macula are certainly not uncommon, and in the older age group, a markedly elevated mass in the region of the macula from disciform degeneration is not uncommon. There are no lipoid deposits at the margins of the lesion in malignant melanomata.

It is wise to delay removing eyes which are diag-

†Adler, F.: See Frayer[1]—personal communication.

nosed clinically as a malignant melanoma in the macular area. I feel that these malignant tumors are more frequently situated near the macular area and not over the macular area. In any case, one can afford to wait a few weeks and note the characteristics as to change in size and color after subsequent careful examination. In the cases of malignant melanomata in the posterior segment of the eye, a clinical finding which is not often stressed is the presence of a serous detachment of the retina without a tear, well inferiorly. This can only be observed with maximum dilatation of the pupil and careful search in the periphery of the retina.

Hypersensitivity States Affecting the Macula

Central serous retinopathy.—The occurrence of episodes of edema in the macular region with consequent relatively transient disturbance of the vision has been recorded by numerous authors under different titles and recently the whole subject has been reviewed by Wagener.[12] Harrington and Nicholls[7] are of the opinion that anxiety is a common factor in this condition while Hollenhurst[3] thinks the etiology and pathogenesis is allergic.

Inflammations affecting the choroid and the retina in the region of the macula are frequently the result of hypersensitivity to an offending agent elsewhere in the body. Usually these inflammatory conditions occur among those in the younger adult age group and a careful medical examination is required in order to determine the cause. For many years, tuberculosis has been considered the most important cause of the inflammation, but recently toxoplasmosis and histoplasmosis have been found to be causative agents. Of course there are many inflammations in this region for which no cause can be determined.

Macular Edema After Cataract Extraction.—An interesting, but relatively rare, complication following cataract surgery is the development of macular edema. Numerous reports have appeared in the literature in the past few years, especially those of Nicholls[7] and Welch and Cooper.[13] I recorded three such cases in discussing Nicholls' paper at the Canadian Ophthalmological Society in 1953.[7] All three patients had had intracapsular extractions and the postoperative course was normal. In all, the visual acuity was correctible to 20/30 or possibly 20/40 at the first examination after removal of the sutures, but three or four weeks later the vision had deteriorated to 20/80 or poorer. In all, a central scotoma was demonstrable but no obvious edema was observed with the ophthalmoscope, although I presume there must have been some slight swelling in the region of the macula. No treatment was employed and in three or four months' time the visual acuity improved spontaneously so that all patients had 20/20, approximately.

Metastatic Tumor.—The occurrence of a metastatic tumor in the region of the macula is not common. However, the characteristics of the tumor are such that it usually can be diagnosed without difficulty. It is usually round and the elevation is quite marked, having the appearance of the surface of an orange. The retina surrounding the tumor is normal and the peripheral visual field is full.

Hemangioma of the Choroid.—This is a rare condition which is frequently situated near the disc, and its greyish-blue color makes one suspect a malignant melanoma. I have mistakenly removed one such eye.

Non-Elevated Lesions of Macular Area

Senile Degeneration of Macula.—This is a common cause of failure of central vision in older people and is characterized by the appearance of degenerative changes, usually punctate in nature, occurring bilaterally and limited to the region of the macula. It is due to sclerosis and obliteration of the smaller capillaries in the choroid in the central area. It is frequently difficult to see a lesion, ophthalmoscopically, affecting the macula in these patients, although the vision is reduced and a central scotoma may be elicited. In amblyopia exanopsia the scotoma is always relative. The condition usually starts in one eye, but almost invariably the other eye becomes involved months or years later. Oftentimes, no hemorrhages are seen but just as frequently, small intra-retinal hemorrhages are observed.

Myopic Changes.—In myopia, the atrophic process of stretching results in choroidal hemorrhages, especially near the macula when, of course, they result in immediate loss of central vision. Often the degenerative process is in the region of the macula and not accompanied by hemorrhages. However, when hemorrhages do occur, they are

characteristic of myopia in that they have a globular appearance.

Angioid Streaks.—The fundus picture in angioid streaks is striking when it is first observed. There are many hemorrhages at the macula and severe loss of vision occurs.

Diseases Affecting Blood Vessels

Macular Changes After Central Retinal Vein Occlusion.—Wise[14] has written several important articles on the late opththalmoscopic findings after occlusion of the central or branch retinal veins. He points out that the lesions at the macula simulate those of senile macular degeneration. However, the presence of newly-formed veins at the optic disc should suggest the appearance of a previous central retinal vein occlusion. Klein[4] has pointed out that the destruction of retinal tissue results in proliferation of neurologia and an ill-defined yellowish flat patch in the region of the macula. Occlusion of the central retinal artery, of course, results in the sudden complete or almost complete loss of vision and the classical cherry-red spot is observed at the macula with the surrounding edema. Hemorrhages and exudates will occur in hypertension, diabetes, nephritis and blood dyscrasias.

Circinate Retinitis.—Circinate degeneration in the region of the macula occurs in older people and is characterized by the formation of a large number of bright white spots in the deeper retinal layers around the macula. It runs a chronic course and invariably results in serious defect in vision. Quite frequently the picture is complicated by small or very large hemorrhages either over the macula or more peripheral to the white spots.

Traumatic Lesions Affecting the Macula.—Macular holes after contusions to the eye are not uncommon but usually a blow of some considerable severity is required on the anterior part of the eye. Likewise, tears in the choroid will frequently affect the macula. A large series of healthy young men suffering from eclipse burn of the retina were reported by McCulloch.[6] These patients had a minor defect in vision of approximately 20/40 or 20/50, and a small but definite hole in the retina at the macula could be found on ophthalmoscopic examination. Most of the patients reported by McCulloch were affected by this condition in the 1935 eclipse.

Colloid Deposits.—Massive colloid deposits in the retina, posteriorly, oftentimes do not affect the macula, in which case there are no visual symptoms. However, in many instances the central vision does fall due possibly to degeneration and sclerotic changes in the retina on the central area of the choroid underneath.

Cystic Degeneration of the Macula.—Non-traumatic holes at the macula are not uncommon and often they are difficult to see ophthalmoscopically. When a hole is found, there is a dark red spot at the fovea, the appearance of which suggests that the retina has been struck with a "punch."

Treatment

The only recent advance in the treatment of macular lesions was that reported by Rome[9] in 1957, who pointed out that one of the "major factors in the development of atherosclerosis is the study of the blood lipo-proteins." He pointed out that heparin is anti-atherogenic. His results indicated that rapidly developing disciform macular degeneration showed the best results with treatment of 100 mg. heparin intravenously twice a week for ten or twenty injections. Improvement was reported in the patients who had exhibited senile macular degeneration. My experience of this treatment is *nil* at the present time.

Some ophthalmologists combine this form of therapy with the use of potassium iodide combined with niacinamide hydroiodide (Iodo-Niacin).

Steroid therapy has been used and is, of course, recommended in the treatment of lesions of the macula which are considered due to manifestation of the hypersensitivity state, for example, central serous retinopathy, non-specific chorioretinitis, et cetera. However, in lesions of the macular caused by the toxoplasma, pyrimethamine (Daraprim) is used over extended periods.

In lesions of the macula due to the histoplasma, a new anti-fungal antibiotic, Amphotericin B (Fungizone, Squibb), is available and should be given for a period of forty-eight weeks. Frequently, steroids are combined in the treatment of histoplasma chorioretinitis. The therapy should be interrupted if there are manifestations of toxicity, particularly elevation of the non-protein nitrogen values.

After cataract extraction, Nicholls[7] has recommended the use of nicotinic acid, but on my own

patients no treatment was used and vision returned spontaneously as previously noted.

The low vision optical aids have recently assumed importance. Macdonald,[5] at the University of Toronto, reported his results before the Canadian Ophthalmological Society in June, 1958, using a variety of magnifying lenses. Many patients showed improvement of vision especially in the lesions of the macula, depending on the extension of the involvement.

One must not neglect the use of occupational therapy in patients with defective vision. Patients with lesions of the macula require reassurance that they will not be blind and should always be able to get around fairly well by themselves. Occupational therapy plays an important role in the management of their daily lives and should not be neglected.

References

1. Frayer, W. C.: Elevated lesions of the macular area. A.M.A. Arch. Ophth., 53:82, 1955.
2. Goldmann, H.: Slitlamp microscopy of the vitreous and the fundus. Brit. J. Ophth., 42:887, 1956.
3. Hollenhurst, R. W.: Diseases of the retina and optic nerve. A.M.A. Arch. Ophth., 57:744, 1957.
4. Klein, B. A.: Macular lesions of vascular origin, Part I. Am. J. Ophth., 34:1279, 1951, Part II, Am. J. Ophth., 36:1, 1953; Diseases of the macula. A.M.A. Arch. Ophth., 60:175, 1958.
5. MacDonald, D.: Low vision aids. Tr. Canad. Ophth. Soc. (in press).
6. McCulloch, C.: Changes of the macular due to solar radiation. Am. J. Ophth., 28:1115, 1945.
7. Nicholls, J. V. V.: Macular oedema in association with cataract extraction. Tr. Canad. Ophth. Soc., 6:129, 1953
8. Reese, A. B., et al (A Symposium): The diagnosis and management of intraocular melanomas. Tr. Am. Acad. Ophth., 62:517, 1958.
9. Rome, S.: Heparin in senile macular degeneration. A.M.A. Arch. Ophth., 57:190, 1957; New approach to senile macular degeneration. Am. J. Ophth., 43:633, 1957.
10. Sorsby, A.: Modern trends in ophthalmology. 3d series. P. 63. London: Butterworth and Company, 1955.
11. Thompson, G. A.: The use of radioactive phosphorus in the diagnosis of ocular tumours. Tr. Canad. Ophth. Soc. (in press).
12. Wagener, H. P.: Central angiospastic retinopathy and central serous chorio-retinitis. Am. J. M. Sc., 233:220, 1957.
13. Welch, R. B., and Cooper, J. C.: Macular oedema, papilloedema and optic atrophy after cataract extraction. A.M.A. Arch. Ophth., 59:665, 1958.
14. Wise, G. N.: Macular changes after venous obstruction. A.M.A. Arch. Ophth., 58:544, 1957.

FUNCTIONAL DISORDERS OF THE DIGESTIVE TRACT

(Continued from Page 2001)

should prove of interest. Perhaps the conflict pattern may have some uniformity of design in these individuals.

Palliation may be tried along the lines of ulcer therapy—bland diet, antacids, and antispasmodics. These measures often prove helpful, at least temporarily, in interrupting the cycle of recurrent pyrosis.

References

1. Babkin, B. P.: Reflexology—Panel discussion. American Society for Research in Psychosomatic Problems. Atlantic City, N. J., May 1, 1948.
2. Clark-Kennedy, A. E.: The patient and his disease. The Lancet, 2:723 (Dec. 9) 1950.
3. Gold, H., Kwit, N. T. and Modell, W.: The effect of extra-cardiac pain on the heart. Proc. A. Res. Nerv. & Ment. Dis., The Williams and Wilkins Co., 23:345, 1943.
4. Grace, W. J., Seaton, P. H., Wolf, S., and Wolff, H. G.: Studies of the human colon: variations in concentration of lysozyme with life situation and emotional state. Am. J. M. Sc., 217:241-251, 1949.
5. Gray, S. J., Ramsay, C., Reifenstein, R. W., and Benson, J. A.: Significance of hormonal factors in pathogenesis of peptic ulcer. Gastroenterology, 25:156 (Oct.) 1953.
6. Ikemi, Y., et al: Exeprimental studies on neuroses of the digestive tract. Kijushu J. Med. Sc., 7:121-146, 1956.
7. Jones, C. M.: Digestive tract pain. New York: The Macmillan Co., 1938.
8. Kalser, M. H., Zion, D. E., and Bockus, H. L.: Functional diarrhea: an analysis of the clinical and roentgen manifestations. Gastroenterology, 31:629 (Dec.) 1956.
9. McDonald, D. A., and Hess, W. R.: Control of autonomic nervous system by the hypothalamus. Lancet, 1:627-629 (March 17) 1951.
10. Margolin, S. G., Orringer, D., Kaulman, M. R., Winkelstein, A., Hollander, F., Janowitz, H., Stein, A., and Levy, M. H.: Variations in gastric function during conscious and unconscious conflict states. A. Research Nerv. & Ment. Dis., Proc., 29:656-664, 1950.
11. Murphey, T. P., and Gellhorn, E.: Further investigations on diencephalic-cortical relations and their significance for problem of emotion. J. Neurophysiol., 8:431 (Nov.) 1945.
12. Riggs, A. F.: Talks to Patients (1) The Individual. Stockbridge, Mass.: Austin Riggs Associates, 1937.
13. Thomas, J. E.: The autonomic nervous system in gastrointestinal disease. J.A.M.A., 157:209 (Jan. 15) 1955.
14. Tumen, H. J., and Cohn, E. M.: Heartburn: A Clinical study. J.A.M.A., 139:292-297 (Jan. 29) 1949.
15. Walshe, F. M. R.: On clinical medicine. Lancet, 2:781-784, 1950.
16. Wolf, S.: Report of the committee on psychosomatic relationships in gastroenterology. Gastroenterology, 18:55-63, 1951.
17. Yaskin, J. C.: Functional disorders of the gastrointestinal tract of neuropsychiatric origin. *In* Bockus: Gastroenterology, III:908. Philadelphia: W. B. Saunders Co., 1943.

250 S. 18th Street
Philadelphia 3, Pennsylvania

Bromism, A Menace

Five Illustrative Case Histories

By Russell F. Weyher, M.D.

Detroit, Michigan

BROMIDES were first discovered by Balard in 1826[15] and during the early twentieth century were used extensively both for epilepsy control and as a sedative. Bromide compounds were eclipsed, however, as anti-convulsants, when the barbiturates came into general use and within the past decade have largely been replaced in the physician's armamentarium by the increasing horde of "tranquilizers." In the last few years, the scientific literature has not been replete with discussions of this subject. In two recent editions of comprehensive textbooks of medicine, one comprising 1,553 pages[8] and the other 1,687 pages,[2] exclusive of the indices, information on bromide intoxication was limited to approximately one-half page in each text. The treatment of bromism was limited to less than one-half page out of 607 pages comprising a 1956 text on current therapy.[4] The library of the American Medical Association, when asked for literature during the past three years on bromism or bromide intoxication, responded with three articles from American journals, one in the British literature, one abstract, and one response in the *Journal of the American Medical Association* in the question and answer column.[1]

However, among the general public, bromides have not been eliminated by any means. Witness the extensive use of a granular effervescent bromide concoction available in a dispenser for the payment of a small fee, at the soft drink and lunch counters of many large "chain" drug stores. Another proprietary liquid is used "for nervous disorders." A third has been used for nearly a century for "disorders of the female sex," although its concomitant percentage of alcohol has been much reduced from its original 18 per cent. A fourth is dispensed over the counter to produce "restful sleep without the use of narcotics or barbiturates."

Mixtures of bromide salts in a vehicle are available without a physician's prescription at most drug stores in several states, such as Michigan. One can speculate as to why the laity is using bromide self-medication so extensively, especially, as in one of the following cases, where the patient took effervescent granules by the handful and washed them down with aromatic spirits of ammonia! Obviously, during this era of nervous tension and uncertainty, a person can take the drug frequently. It is available at many soda fountains and drug stores and it is cheap compared to the cost of much higher priced tranquilizers, to which the doctor's prescribing fee must be added.

The problem of bromide intoxication is being met adequately in most mental and "state" hospitals which have a large percentage of psychiatric cases. For example, Scott and Brown[15] report that at Harrisburg State Hospital in five years, among 1,339 first admissions, an average of 3.1 per cent were considered toxic from bromides. The Mayo Clinic reported 158 cases from 1934 to 1943.[15] But at a centrally located private Detroit hospital, which strictly limits psychiatric case admissions, from 1952 through 1956, there were 52,521 adult admissions, excluding obstetric patients and newborn infants.[14] Three cases were listed as bromide intoxication (bromism), and out of 87,267 blood chemistry studies in this same period, thirty-four blood serum bromide levels were ascertained.[13]

Another private hospital in Northwest Detroit, with a patient clientele in a better economic status, performed 143,736 laboratory analyses from 1952 through 1956, but only forty-five blood bromide estimations were made in that period,[7] and in a large general county hospital outside of Detroit for the past four years only forty-seven blood bromide tests were done out of 205,896 chemical analyses.[4]

From these statistics, it would appear that in some private general hospitals with limited psychiatric admissions, the staffs are not generally alerted to the possibility of bromism among their patients.

The long-continued use or abuse of bromide compounds produces ill-defined neurological, psychological and physical changes, which are aggra-

Presented at the Medical Staff meeting of Providence Hospital, Detroit, Michigan, January 4, 1958.

vated by a sudden increase in intake. For example, Holland in 1905 described a nineteen-year-old woman with epilepsy, who developed weakness, tremulousness, wakefulness, headache, vertigo and loss of memory when she increased her potassium bromide dosage without her physician's knowledge. She then developed fetid breath, coryza, salivation, delirium, and a fatal pneumonia.[9] Apparently, at that time chloride replacement therapy was not employed.

Although very few deaths from bromide intoxication are reported, if the diagnosis is missed, encephalitis, cerebral neoplasm, cardiac failure (especially if an associated acetanilid cyanosis is present) or hepatic coma may be cited as the terminal illness.

Alcoholics may easily switch to bromide habituation to relieve their tremors, excitation, or headaches. This drug is contraindicated in electroshock cases and also in dormant tubercular lesions where it may act like iodides to activate the process.[5]

Some salient points in the following illustrative cases are herewith brought to the reader's notice. Four of the five patients were sterile. Only one of these showed any skin lesions, which corresponds to 20 per cent of all cases, according to Drill.[5] Four of the five patients were in critical condition, one being comatose for three days with meningeal irritation, which can occur solely from acute bromide intoxication.[5]

Although the elderly woman (Case 5) had been admitted to the hospital on three previous occasions, her bromide habituation was not discovered until the fourth admission, shortly before her final terminal illness. Ayerza's syndrome was thought solely responsible for the stupor and cyanosis in the first case.

Although only one of the patients had skin lesions, Chick and Lelian recently pointed out that when present, bromide acne may be confused with blastomycosis and that a patient with functional (or emotional) disturbances who takes bromide over a period of time may find its tranquilizing effect can lead to stimulation, whereupon the patient may voluntarily increase his dosage.[3]

Therapy

Obviously, as soon as the diagnosis is made, all bromides must be stopped, and chlorides should be administered rapidly, intravenously if the patient is seriously ill, and orally in large doses.

An associated cardiac decompensation is treated vigorously. The author believes glucose intravenously in concentrated solutions, with mercurial diuretics may be helpful, even if there is some renal impairment.

Since bromides enhance the action of narcotics, alcohol, barbiturates, and probably tranquilizers, these should be used with caution, if at all. Chloral hydrate can be used, even if the patient is very ill with cardiac failure.

Hussur and Holley[10] find bromide elimination is more rapid with a regime of six grams of ammonium chloride daily plus 2 cc. of Mercuhydrin (each cubic centimeter contains 39 mgm. of mercury and 48 mgm. of theophyllin) intramuscularly every second or third day.

Chlorpromazine parenterally and orally has been used to quiet restlessness, disorientation, and hallucinations.[12]

Muszynska[11] mentions salt and glucose tablets for a severe psychotic, diagnosed previously as myocarditis and pneumonitis because of his cyanosis. Apparently, each individual has a critical bromide tolerance. When used in excess of this level, or if acetamilid is used concomitantly, signs of intoxication will appear. Likewise, if salt intake is reduced and mercurial diuretics are prescribed, bromide toxicity will develop. Conversely, intravenous hypertonic glucose solutions, venesection in selected cases, and hydration may improve the patient, even though the blood serum bromide levels may actually increase or stay elevated for long periods, after clinical improvement.

Case 1.—H.S., a white man, aged sixty-four, was first hospitalized for a month in 1953, for dyspnea, cyanosis and severe headaches. On admission, he was gasping, stuporous, and his sclerae, lips, tongue, fingers, and toes showed a deep "magenta blue" cyanosis, with pitting edema of the feet and legs. The chest showed emphysema, and the accessory muscles of respiration in the neck were very active. The lungs were markedly congested, as was the liver, and the heart was bilaterally enlarged. The diagnosis was recorded as Ayerza's syndrome, in advanced cardiac failure.

Important laboratory findings included an electrocardiographic report of partial A-V block and anteroseptal infarction, a negative urinanalysis and Kahn test, two non-protein blood nitrogen readings of 39 and 37 mgm. per cent, a blood serum cholesterol of 135, bromsulphthalein of 11.6 per cent in forty-five minutes, a cephalin flocculation of 4 plus in forty-eight hours; and normal thymol turbidity, direct and indirect bilirubin tests, and normal leukocyte counts. On September 4 (day of admission), the hemoglobin was 19.1 gm., the next day 17 gm., and on September 26, 18.2 gm. On

admission, the erythrocyte count was 6,870,000, the next day 5,010,000, and on September 26, 5,300,000 cells.

Therapy.—The patient was placed in an oxygen tent for five days. He was given a low sodium diet, mercuhydrin, digoxin, chloral hydrate, and catharsis. Two 500 cc. venesections were done in the first forty-eight hours, three weeks later 500 cc. and a final venesection of 500 cc. twenty-six days after admission.

Course.—The patient became rational after two days; the edema disappeared by the seventh day, and the cyanosis was hardly visible upon discharge.

Second Admission.—The patient's condition was similiar to the previous admission. His hemoglobin estimation now was 16.4 grams, with the erythrocyte count 5,700,000. Six days later, the hemoglobin rose to 19 gm. and the erythrocytes to 6,150,000. The non-protein nitrogen was 42,. a blood serum calcium 10, and a blood phosphorus 2.2. Two hematocrit readings were 65 and 62. A teleroentgenogram revealed left ventricular enlargement and generalized chronic passive congestion. The hematological consultant diagnosed secondary polycythemia with a poor prognosis.

Therapy.—In addition to the other previous treatments, a phlebotomy of 800 cc. was performed, and aminophylline, coramine and 20 per cent glucose were given intravenously. Nicotinic acid, and adrenocorticotropic jel were administered. On one occasion, he passed over 8,000 cc. of urine. He was discharged much improved after five weeks.

Third Admission.—The patient was admitted October 16, 1956, in a condition like that of the two previous hospitalizations. He had been a heavy smoker, used much coffee, admitted to imbibing alcohol "moderately," but denied using any drugs except digitalis. Physical and laboratory findings were similar. Two phlebotomies of 500 cc. each were performed. On the day of discharge, eleven days later, he confessed to having used a "few" Restettes nightly for years and a "handful" of aspirin tablets when his headaches occurred (See appendix). His blood bromide level that day was 54.6 mgm. per cent. This was the first clue to his diagnosis. He improved and was discharged twelve days later.

Note: On April 10, 1958, this patient was reported to be quite well but somewhat obese, and was said to have stopped using "Restette" capsules.

Case 2.—F.G., a white man, aged forty-seven, married, a plumber unemployed for one year, was hospitalized July 18, 1957, in a stuporous incoherent, semi-comatose condition.

His history (obtained four days later) revealed chronic right fronto-temporal headaches, aggravated by nervous tension, vertigo, frequent falling in the last two years, and weakness of both hands and legs.

For many years, indigestion "and heartburn" had been present. He had been married twenty-nine years and had no children. His wife was reported in good health. Fifteen years previously, he was informed that he was sterile.

The history included a childhood eye injury, meningitis at fifteen, an appendectomy, an umbilical herniorrhaphy and an urethral stricture twenty years previously.

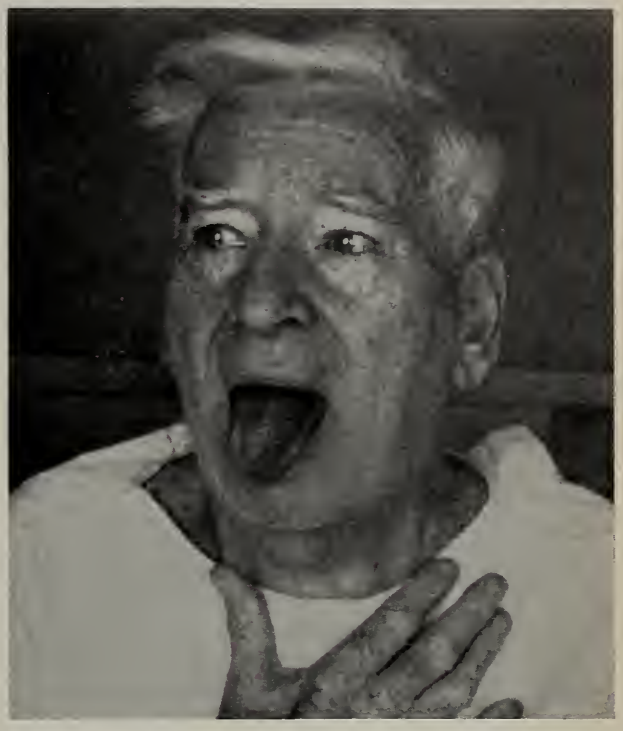


Fig. 1. Case 1. Mr. H. S., September 11, 1953. Note injected sclerae, cyanosis of tongue, lips and fingers.

Complete dental extraction was done two years ago for his headaches, without relief. Larger shoes were necessary recently because of swollen feet and ankles.

Physical examination showed obesity, a right old corneal scar, deeply injected sclerae, chronic extensive acne, and a bluish cyanosis of the ears, nose, fingers and toe nails.

Cardiac sounds were regular, rapid and distant. Both posterior basilar lung fields exhibited fine moist rales. The liver was enlarged three fingerbreadths below the right costal margin. Both lower legs and feet showed moderate pitting edema. The pupils were equally dilated. Kernig's sign was positive, but Babinski signs were absent. Knee jerks were bilaterally hyperactive. Both hand grips were very weak.

The admitting clinical impressions included cardiac failure with a cerebral neoplasm, meningitis, or a pituitary adenoma. Initial laboratory studies included 16.4 gm. hemoglobin, 5,700,000 erythrocytes, 6,450 leukocytes, blood Kahn negative, blood glucose 14.2 mgm. per cent, a blood non-protein nitrogen of 32, with 46 the next day, and normal intravenous pyelograms, negative x-ray findings of the skull and sella turcica, and a normal electrocardiogram except for digitalis effect.

He was placed in an oxygen tent, and given mercurial diuretics, intravenous glucose in distilled water, and a low sodium diet. Two days later, he was worse, noisy, incoherent, and restraints were applied. The third hos-

pital day, he developed a moaning stupor, with severe headache and marked neck rigidity. At this time, a relative informed me that he had been consuming the contents of a large sized bromoselzer bottle every two or three days, usually taking a handful of the granules and "washing them down" with aromatic spirits of ammonia. A blood serum bromide was 380 mgm. per cent on July 24, at which time chloral hydrate was administered, with intravenous normal saline and 2 grams of enteric coated sodium chloride t.i.d. Three days later, he was much improved. On July 30, the blood serum bromide level was 252. He now admitted to taking bromides for thirty years, usually bromoselzer but sometimes bromoquinine. Seventeen days after admission, he was discharged to his home.

On November 20, 1957, he was rehospitalized for fractures of the right costo-chondral junctions which occurred when a heavy lead pipe hit his chest. His hemoglobin was 13.0 gm. with 4,700,000 erythrocytes, and although he denied using bromides since his previous hospital discharge in August, the blood serum bromide was 62 mgm. per cent.

He was discharged much improved after one week, with the right chest immobilized.

Case 3.—L.S., an unemployed white man, aged fifty-one, was referred by Dr. A. Sack. He was hospitalized October 16, 1956 in acute cardiac decompensation. A large hemoptysis had occurred two days previously. His previous history revealed a "very nervous" mother. His father died of "heart trouble." Although his wife was in good health, she had never been pregnant. He had been a chronic alcoholic up to nine years ago, and was a very heavy cigarette smoker (over forty daily). A primary chancre was treated for two years in his early youth. Frequent wheezing coughs had become worse in the past two years. He admitted using bromoselzer steadily, but couldn't remember how long nor how much.

Examination showed a critically ill patient in Fowler's position with a constant racking cough, marked dyspnea, and a barely audible grunting speech. The ears, nose, lips, hands, and feet were cyanotic. The sclerae were very injected. The face, thighs, legs, and feet showed intense pitting edema. The distended abdomen showed moderate ascites, and precluded palpation of the liver or spleen. Temperature was 97.8°, pulse 110-140, blood pressure 170/85. Therapy included a low sodium diet, an oxygen tent, digitalization, morphine, codeine cough syrup, and phenobarbital.

The next day, he developed a feeble pulse, disorientation, and appeared to be moribund. Tracheal mucus was aspirated. A dosage of 50 cc. of 50 per cent glucose intravenously, mercuhydrine and coramine were administered. A bloodless phlebotomy was applied to the lower limbs. Laboratory tests showed a hemoglobin of 15 gm. with 4,900,000 erythrocytes. The third morning, there was improvement, although the blood glucose was 240. He received 1,500 cc. of 5 per cent glucose in distilled water plus 30 units of regular insulin.

On October 20 (two days later), the blood glucose was 96. On the tenth hospital day, a blood serum bromide was 270. He was given salt tablets and intravenous saline. On October 30, he was mentally clear, compensated and ambulatory. Blood serum bromide was 244. He was discharged home on October 21, 1956. The bromide level ten days later was 100, but on March 4, 1957, level was 4 mgm. per cent, with a negative Kahn, sedimentation rate and urinalysis, at the office.

Note: Although the true diagnosis of bromide intoxication was not made until ten days after admission and in spite of the low salt diet, intravenous fluids, diuretics, glucose, mercurials, digitalization, and bromide abstinence saved this patient.

Case 4.—Mr. F.E., an unemployed Italian, aged forty-eight, was hospitalized October 17, 1956 and discharged three weeks later.

His mother died of diabetic complications. His wife had never become pregnant. In his youth, a splinter had severely injured his left eye. His habits included one to four glasses of wine daily and a tablespoon of "Nervine" when he was excited or couldn't sleep, several times a week. Two days before admission, following a terrible right hemicrania, his left arm, hand, and leg became weak, and his speech became so slurred it was nearly unintelligible.

Examination showed a tall, stocky middle aged man. Temperature was 96.4°F., blood pressure 160/90, but the pulse rate was 48. The left cornea was opaque. His tongue protruded to the left, and the right temporal region of the face was very tender.

The heart was enlarged to the left. The liver was enlarged about three fingerbreadths below the costal margin. The legs showed varicosities, no edema and old stasis pigmentation.

Neurologically, he showed an unsteady shuffling gait and muscle weakness of the left forearm and leg. The patellar reflexes were bilaterally decreased. The Babinski reflex was positive on the left. An electroencephalogram showed a sub-cortical vascular disturbance.

There was some cyanosis of the lips, tongue, and fingers. Laboratory studies showed a bloody spinal fluid. He refused a second lumbar puncture. The hematology was normal, Kahn test negative, a non-protein nitrogen was 50, and blood glucose tests were initially 123, later 139, and two weeks later 85 mgm. per cent. Several urines showed negative glucose tests, varying amounts of albumen, and casts. Therapy included intravenous hypertonic glucose balanced with regular insulin, venesection of 540 cc. digoxin, and penicillin when his temperature rose to 101-104° F. for several days, then became subnormal. A blood serum bromide estimation, ordered on the twelfth day because of continuing cyanosis and mental confusion was 80 mgm. After the blood bromide estimation, intravenous triple chloride solutions were given and salt was added to the diet. He showed definite mental improvement but the hemiplegic sequellae remained. Diagnoses on discharge were cerebral vascular thrombosis or hemorrhage, left ventricular hypertrophy, nephrosclerosis, and bromide accumulation.

Case 5.—Mrs. A.H., a retired white woman, aged eighty-one, was hospitalized September 21, 1956, for eighteen days because of nausea, gaseous eructations, and

anorexia of several months' duration, insomnia and weight loss for one month. She worried constantly about sleeplessness, cancer, heart failure, and sudden death. Several home visits previously, however would show her sleeping soundly, frequently snoring up to 11 a.m. to noon, on the day of the visit. When awakened, her speech would be slurred and she would be confused.

Her husband had died twenty-four years previously, at which time she developed a progressively crippling generalized rheumatoid arthritis. She never became pregnant. All living relatives had died. A large impacted fibromyoma was removed in 1956, and the previous year, bilateral cataracts were enucleated.

Examination showed a frail, undernourished old white woman, with multiple crippling arthritic deformities of the shoulder, left elbow, partial ankyloses of the knees, ankles, left hip, and the "claw" hands of advanced arthritis. The sclerae were injected, the left eye was blind. There were no teeth. The breath was foul, and the coated tongue a magenta color. Cyanosis of the lips, fingers, and feet was present. A mid-epigastric tenderness was present, with some upper abdominal distention. Laboratory findings included a negative Kahn test, and urinalysis. Fasting free gastric hydrochloric acid was 10°. Hemoglobin and erythrocyte studies were normal. A gastro-intestinal x-ray series revealed a peri-esophageal hiatus hernia. Two days before admission, the blood bromide level was 206, obtained after her companion at home admitted giving her a "few bromoselzers" nightly for years, so that they could both sleep!

Five days after specific therapy (1.5 gm. of salt tablets daily plus intravenous normal saline), the bromide level dropped to 64, and the patient was returned home with gastric symptoms much improved. Two weeks after her hospital discharge, the bromide level was 54.

Course.—On February 9, 1957 (while I was out of the city), the patient was readmitted because of a stridor and a constant cough following a respiratory infection of three weeks' duration. She was brought in as an emergency case, with a tracheal occlusion requiring an immediate tracheotomy. In spite of oxygen, frequent aspirations, multiple antibiotics, aminophylline, intravenous feedings and sedation, the whole trachea became edematous, moist rales were heard throughout both lungs, and there was a low grade fever of 99 to 99.6°. Pneumonia developed, and she expired on the sixth hospital stay.

An autopsy revealed a granulomatous laryngitis above and below the tracheotomy tube, bilateral aspiration pneumonia, a previous fibrous pericarditis, coronary sclerosis and bone marrow emboli in the pulmonary vessels. The physicians in attendance did not consult her previous admission chart and were apparently unaware of her previous bromide syndrome.

No blood bromide levels were ordered during her terminal illness.

Summary and Conclusions

Five cases of chronic bromide intoxication have been presented to illustrate the menace of bromide addiction. Since the development of barbiturates, newer compounds for epilepsy control, and the "tranquilizers," physicians have relegated bromides to a background role, but proprietary bromide usage has become widespread.

Only three of several "over-the-counter" items indicate their bromide content by name. Patients often forget to tell their physicians, who often forget to ask them, about their bromide intake.

Many of the bromide preparations available contain acetanilid, the latter causing methhemoglobinemia and sulphemoglobinemia. The resulting cyanosis must be differentiated from that caused by cardiac failure, respiratory depression and pulmonary embarrassment.

In this era of low salt diets for hypertensive and cardiac cases, the constant use of bromides may cause serious accumulation of the drug.

Physicians prescribing hexamethonium bromide for hypertension should recognize the danger of a low salt diet when such patients use this substance for extended periods.[16]

Patients having arteriosclerosis, anemia, impaired renal function and organic heart disease, who are taking bromides, are more susceptible to bromide intoxication, even if their blood bromides are not very high.[16]

Alcoholics may switch to, or use concomitantly, large repeated doses of bromides especially for their post-alcoholic headaches and/or their excitation after an alcoholic "spree."

The public should be better informed about the danger of bromide habituation and proper labeling of proprietary remedies should be enforced.

A high index of suspicion and more frequent blood serum bromide determinations should uncover this factor as a hazard in acutely and chronically ill patients upon admission to the hospital.

Finally, when such cases are discharged, a persistent follow-up of each patient will reveal his lapse into bromide rehabituation when this occurs.

References

1. AMA Library: Communication No. 843-5. J.A.M.A. (Dec. 6) 1957.
2. Cecil, R. L., and Loeb, R. F.: Textbook of Medicine. 9th ed. p. 530. Philadelphia: W. B. Saunders, 1955.
3. Chick, E. W., and Lehan, P. H.: Diagnostic aspects of bromoderma and blastomycosis. G.P., 16:104-107 (Aug.) 1957.
4. Conn, H. F.: Current Therapy. p. 482. Philadelphia: W. B. Saunders, 1956.
5. Drill, V. A.: Pharmacology in Medicine Chap. 3/8. New York: McGraw-Hill, 1954.

2415 West Grand Boulevard

6. Ellis, F. R.: (Clinical pathologist, Wayne County General Hospital and Infirmary): Personal communication.
7. Gardner, L.: (Laboratory director, Mount Carmel Hospital): Personal communication.
8. Harrison, Tinsley, R., et al.: Principles of Internal Medicine. p. 754. Philadelphia: Blakiston, 1951.
9. Holland, J. W.: Textbook of Medical Chemistry and Toxicology. Philadelphia: W. B. Saunders, 1956.
10. Hussar, A. E., and Holley, H. L.: Treatment of bromide intoxication. Am. J. Med., 20:100-106 (Jan.) 1956.
11. Muszynska, H.: Psychosis following bromide intoxication. Delaware M. J., 26:205-206 (Aug.) 1954.
12. Owen, Thelma, and Stammermann, M. G.: Acute bromide intoxication treated with chlorpromazine. West Va. M. J., 52:330-331 (Oct.) 1956.
13. Providence Hospital: Laboratories. Bio-chemistry Division, statistics. (Compiled by Dr. Ruth McNair).
14. Providence Hospital: Record Room statistics.
15. Scott, M. D., and Brown, J. M.: Existing danger of bromide intoxication. Virginia Med. Month., 83: 337-339 (Aug.) 1956.
16. Spence, E. M.: Chronic bromism. Brit. M. J., 1:565-566 (Mar. 9) 1957.

2415 W. Grand Blvd.
Detroit 8, Michigan

Appendix

Commonly Dispensed Bromide Preparation U.S.P. Dosage—0.5 gm. (15 grains)

Name	*Bromide Content*	*Acetanilid*	*Form*
Bromoselzer	320 mgm. per dram	160 mgms. per dram	Effervescent Granules 1 oz. and 2½ oz. bottles
Bromidia	91 gr. to each oz.	none	Liquid pint & gallon
Neurosine	90.6 gr. in each oz.	none	Liquid 4 & 8 oz. bottles
Restettes	12 gr. in each dose	present amount unknown	capsules
Nervine	30 gr. each tablet 1200 mgms. each dram	none	tablet liquid 6 oz.
Bromoquinine	⅛ gr. quinine hydrobromide in each	none	5 gr. tablets

INCIDENCE OF VENEREAL DISEASE

Since the introduction of the antibiotics, the over-all death rate from syphilis has dropped from 12 persons per 100,000 population in 1943 to 2.2 in 1958. Nevertheless, an estimated million persons in this country still have the disease.

Although the incidence of venereal disease is still high, 30 infants in this country died from congenital syphilis last year, while 3,460 would have died if the 1930 rate had continued.

Despite sharp drops in the incidence of venereal disease since the development of antibiotics, an estimated 60,000 cases of syphilis and 1,000,000 of gonorrhea are still acquired each year. "Complete elimination of these diseases is at this point far from achieved."

The rate of first admissions to mental hospitals for paresis, a complication of syphilis, has dropped from 4.7 per 100,000 population to 0.5 since the antibiotics were introduced. In spite of such figures, the problems of venereal disease in the U. S. are far from solved, chiefly because of public apathy and ignorance.

—Health Information Foundation, Nov. 10, 1959.

The Dynamics of Geriatrics

By C. Howard Ross, M.D.
Ann Arbor, Michigan

THESE remarks have to do with the "powers residual," that may be in evidence, or may be resurrected within the elderly personality. I am aiming my darts of enquiry towards those of advanced years, who are still actively employed; also I am making room for the semi-retired, the rehabilitants and even the timid invalids.

It is my urgent intention to promote certain old folks from the hex of "sittin' an' a-starin' an' a-rockin'."

As we grow older, there must develop within us a habit of *healthful employment of leisure time,* with creative interests hovering in the intimate neighborhood. Those of us in geriatric practice certainly could look sharply about us when observing the living conditions and activity propensities of our older population. A mere fusty room, a chair, a dresser, four walls and a stuffy atmosphere, plus a listless approach to the shards of life—all deserve a gerontological *kick in the pants* from the attending medico.

In addition to writing a prescription for health, we can also turn the knob of existence ever so slightly in the direction of activity—just enough to make the tumblers of the combination open the safe that reveals the freshness of existence.

Let me take you back to a day's end, when the office hours had been utterly spent, and the medical juice had been wrung dry. I was making a deadly aim to eloign myself beyond the door of enticing escape, when a weeping, red-eyed old man confronted me. I turned on the lights, shifting my tongue to a prim set of words that would introduce the suggestion of dinner and family awaiting me. He bellowed right back at me, "What has a meal got to do with my problem? I'm the unhappiest old man in the world!" The ululations continued.

So, we sat down. I then gave him ample opportunity to relate his disaster, and he began, "You see, me—an old man—who married a young woman, and soon the house was full of kids, and I don't know for the life of me where they came from! Everything went fine until the rich young bachelor moved in next door."

"Was that bad?"

"Was that bad! In no time my wife and kids began to take their meals and some pretty fancy times over there. After a spell I had no wife, and pretty soon I had no kids. They all moved in with that young game-cock."

I was thinking of a word that would rhyme with "terrible," when he snatched the thought right away from me and said, "Yes, terrible." However, between weepings and moanings he began to take some degree of courage. "But there was one little bright spot in the whole miserable mess."

"And what was that?"

"She gave birth to an illegitimate baby." I started to exclaim, but he silenced me. "As soon as that child could crawl, he crawled over to see me. As soon as he could climb, he climbed upon my lap. As soon as he could pat, he patted me on the cheek. Why, doctor, the only happiness I get in this whole, wide, wicked world is from the little bastard next door!"

This is a peculiar bit of dynamics y-clept from the life of an old man, but it served as a ferment alleviating his disaster.

Since the child actually bore his name, we arranged a cozy situation, including a housekeeper, the baby, the old man and a different neighborhood. Mamma and her bachelor friend were only too happy to oblige. The tears and the threnodies subsided, and a spiritual rehabilitation was established.

It has been my happy experience to influence the lives of many oldsters who are not swamped by the bachelor next door, but who have experienced their bits of dynamics via other means.

Let me outline to you some of these manipulative techniques, which apply in making the older years of life the richer years. All that I have to

Presented before The Golden Age Group, Conference on Aging, Ann Arbor, Michigan, June 20, 1957.
Also presented before The Northern Tri-State Medical Association, Notre Dame University, May 8, 1958.

say may prickle only one inspiration at a time. In no way do I become enthusiastic except where I have tried out the recommendation myself.



Fig. 1. Geriatric husbandry. King squabs ready for the pot.—From U. S. Department of Agriculture Bulletin 684 (Farmers').

Husbandry

Dr. E. L. Bortz speaks of "human husbandry." I would like to introduce husbandry as a means of stimulating an interest in the older years—a husbandry of lower forms of life, dependent upon the benevolence and the kindly care of some better-than-symbiotic old man or old woman attendant.

Here is where the Shetland ponies, the fancy or plain poultry, the parakeets and the king pigeons come strutting forward for intimate review and culture of the generations. One must select an ancient man or an older couple or a neighborhood group of oldsters, who might enjoy the challenge of animal husbandry on a small scale. In this paper I will dodge the quadrupeds. I would like to emphasize bird culture first—and will take off from there.

In the beginning we need not quote or require previous experience. However, a location in a village, on the farm—or at the edge of town—will fulfill the realms of recommendation.

Let us select only stalwart birds from a tested aviary. You may lean towards the chickens and the parakeets, and I send joy with you. For me—I prefer the king pigeons. Psittacosis (ornithosis) must be ruled out before we dream of beginning with pigeon culture, or we will become an instrumental agent of a disease that will make a pass from pet to fancier. I always vote against "gift birds" for this reason. What we hope for is *recreation* in geriatrics, *not contamination.*

The next move is to maintain a disease-proof aviary or "columbary" by creating a rain-proof roof to the flying cage, preferably of metal. The plan forbids infection from wild bird droppings. The cage may be cylindrical in shape, possessing a central post or tree trunk. The wire must not only be mouse-proof and rat-proof, but shrew-proof. These little devils can kill birds dozens of times their weight, as any wise old man can tell you.

Therefore, the mesh spaces are best not to exceed ¼ inch in size, if we intend to assign an intelligent approach to an elderly hobby. The floor should be of well-poured concrete, not less than 6 inches in depth, to prevent inroads from gnawing and marauding rodents. The wire mesh, creating boundaries of the cage, must be buried within the concrete. Drainage should be considered to keep the landing field dry. A fair-sized cage for a beginner may be 8 feet in diameter and 10 to 12 feet in height. A short stepladder will aid in raiding the pigeon nests of plump squabs.

The construction mentioned may be designed and "blue-printed" beforehand on meat-wrapping paper and then executed wisely by the "not wanted," "the handicapped" and the "shut-ins."

As to nests—they may be created by purchasing a number of empty nail kegs. A top gable piece is nailed into place, after a front porch is fashioned by attaching a keg stave to the bottom of each individual nest-house, with several inches of projection allowed for landing and strutting purposes.

These keg-nests may be spiked to the central cage-stud or tree trunk, in groups of three, one for papa, one for mamma and the eggs and one for the growing babies of the last hatch.

By making matters "well-adjusted" for one's creatures, there develops a kindred kindling of warmth within the hovering human being.

Nesting material is not placed by the elderly man himself, as in the case of chickens, but is fussed over and selected by the birds themselves. A box of small twigs and straws is arranged for the flock to choose from. There must always be an ample supply available. Otherwise, thieves develop and nest-robbing becomes an observed "public offense" and a cause for neighborhood rowdyism. Excelsior should be avoided. The birds may hang themselves. The prize material consists of petioles from the woodbine (Virginia creeper).

If one in advanced age has lost some of his adult roles, he may partially regain them in this new and inviting endeavor of aviary chaperonage.

The most majestic birds are the king pigeons and the giant white runts. I have greatly enjoyed crossing the white and silver kings. By life selections and roasting-pot eliminations, (and to the ex-post-facto horror of Charles Darwin and Gregory Mendel) I have *created* a new breed of bronze kings, with a splashing white necktie, extending from ear to ear. So, the new race of birds emerges. In somewhat like manner, the old man attendant can dismiss some of his living in the past. In a small way he becomes a part of a new wee community, exposing his free time to include creative endeavors.

After mating, the mother bird settles down shortly, following a "heat parade" on the part of the male, and produces a pair of eggs. Incubation is shared by both sexes. The soigne' male assignment lasts from 10 A.M. to 3 P.M., and the female is tuned to the remaining nineteen hours. In seventeen and one-half days, two downy nestlings are hatched. Feeding is by regurgitation. Both parents indulge. In seven weeks the 14-ounce king squabs are of full size and ready for killing, dressing and the pot. King squabs are delicious, stuffed with peppered, chopped toast and tiny sausages, and oven-baked and basted to a turn. In the human neighborhood social exchanges become pregnant with anticipation, and normal companionships among the elderly are re-established.

If one wishes to build up his own flock, he must become patient with the squabs for six months' time to allow for sexual maturity. The squabs find adulthood and the master indulges in some degree of self-recognition.

Various food and mineral supply boxes are provided, containing in series the following: (1) crushed stale bread; (2) a mixture of grains, containing especially the Canadian pea, rolled oats, wheat and cracked corn; (3) crushed charcoal; (4) oyster shell flakes and granite grits; (5) Iodized salt; (6) chopped greens, including grass tops, alfalfa, tomato leaves and freshly sprouted oats; (7) two large pans of water, changed daily, intended for the inner bird and splashing purposes.

Health and protection for the flock have so captivated our former listless oldster that his present glowing cheeks reveal an inner awakening and a spiritual satisfaction.

Bird personalities, to the geriatric observer, are fascinating indeed. There is the nervous housekeeper and her nervous offspring; also—the slovenly old girl and her do-less descendants. Further, it does not take long to recognize the gonfalonier or flock boss.

Pairs are known to mate for life. However, I have seen a saddened widower almost give up the ghost, and then manage barely to recover in twenty-four hours at the sight of a comely widow or eye-giving debutante. A "rich bachelor next door," to a hen-pecked married chap, may create grounds for an aviary divorce. There are many occasions of bird performance, including struttings, noddings of "good mornings," billings, cooings and ceremonials of "giving the eye."

The leisurely observer may take descriptive pictures and even write a paper on the subjects.

Several neighborhood old folks have joined in an aviary ownership, sharing responsibilities of cage-building, nest-cleaning and penning up the new honeymoon couples of selective breeding. Work is not just something for the other fellow's soul. Here is a *golden age working group,* created before our very eyes.

A good producing pair of birds may continue at the task of their husbandry for ten or more years, deferring their own geriatric levels. Some noble pigeons have lived for a quarter of a century.

Altogether, a neighborhood group of oldsters may become greatly attached to their teeming flock. Some elderly people have confessed to me that they consider the exposure to the various bird personalities to be a very personal matter. There is daily activity in the open, and there are intensive plans and uproarious feasts to gladden the golden years.

These generous elderly people readily gather in the strays and assume responsibility for *geriatric castaways,* seeking a *new niche in an older life.* Husbandry recognizes neither politics nor race nor creed but yields a meaning to leisure.

Hanging Herb Gardens

One of the most stimulating additions to the geriatric sick room or sun parlor or outdoor nook, is the hanging herb garden. For a large-sized edition, one may employ a bushel burlap sack. However, the product is a back-breaking Brobdingnagian to move. I have soothed down my ambition in recent years in employing a half-bushel plastic sack as the conveyor of choice. One may purchase such bags at any large produce store or

frozen food locker. One-half-inch openings are made with knife-point about every 3 inches up and down the plastic container in a sort of spiral pattern.



Fig. 2. Hanging herb garden for the geriatric sick-room.

For the sustaining earth that will maintain life, I employ a supply of half-digested leaves sneaked from my mulch heap. This handy pile has been created the previous fall for general garden purposes. For your information, here is the gross formula:

100 bushels of leaves
200 pounds powdered cow manure, which possesses no weed seeds
200 pounds commercial fertilizer
10 bushels black earth
10 pounds "activo" (nitrogen-fixing bacteria)

Such astounding figures need not slay you, and before any scurrilous adjectives are hurled in my direction, let me assure you hastily that fractions suitable for the smaller yard or individual activity may be selected. Incidentally, this mixture makes a wonderful garden refresher.

About one inch of the moistened mulch is placed into the bottom of the bag. Then various herbs are pulled through the perforations, root first, with some degree of stimulative imagination. Each circle of root systems is "nailed home" with handfuls of moist mulch. Around the circles we go, and up the sack we climb, painstakingly drawing in the roots, securing them into position and allowing the green herbs to peep through the openings and hang on the outside of the bag. Finally, our herb bag is almost full of mulch and at least three dozen ambitious herbs are popping through the "eyes" of the mother sack and are eager to grow, give service and motivation to life.

The most generous plants of herb service are: chives, garlic, thyme, sweet marjoram, sweet camomile, spearmint, red-headed lettuce, parsley, lavender and sage.

I have made hanging herb gardens of spearmint, alone, just as a notionate specialty. If the spearmint is too boisterous and possesses too long a mis-fit stem, don't let it get you down. Merely drag, through the opening, the extra stalk of plant, until the desired length is reached on the outside and an incongruous effect is avoided. Spearmint is a moronic and obedient herb and will "mind" a known master readily, being more peasant than *bas bleu,* and responding to the slightest care.

A strong twine loop is tied about the top of the sack, being also reinforced from a bottom plastic safety pad, and hung into position. Watering is done from an "ant-eater snout can," flushing into one of the top perforations.

Old folks who are shut-ins, may have a pair of scissors hanging handily by the mobcap, and snip off their garnishings for any inviting meal, which thus becomes duly enriched. However, the more vigorous may also indulge.

I once prepared a large hanging herb garden for four elderly but active families. Their four properties joined at one point, and that is where we planted the stud that held the herb garden. But these people immediately dramatized the potentialities and ambitions of eager participants and followed suit with many smaller hanging herb gardens which they created for some of their invalid neighbors. The thing is catching!

Some garden clubs, after hearing me spout off, have run away with the idea and have declared it to be their "geriatric project of the year." Many oldsters, no longer men of straw, then imitated the folks at the four corners, assisted invalids in equivalent tasks and became herb garden missionaries in a new apotheosis of dedication.

Mum Culture

Mum culture is strongly recommended for all ages but has its special application for the elderly. Even the arthritic and the yard-confined invalid may vie with the vigorous in this stimulating bit of exercise.

Let us begin at the beginning. About the third week of May in the Temperate Zone the young growths of hardy mums reach 6 to 10 inches in height. Among the many varieties of such mums, my elderly patients and I go a-snooping for sturdy stems. The 3-inch tops of these canes are plucked off and dipped butt-down into a thick soup of root hormone and water. If one wishes to modify certain characteristics of flower pattern, he may add colchicine to the "dip." So far, there is nothing

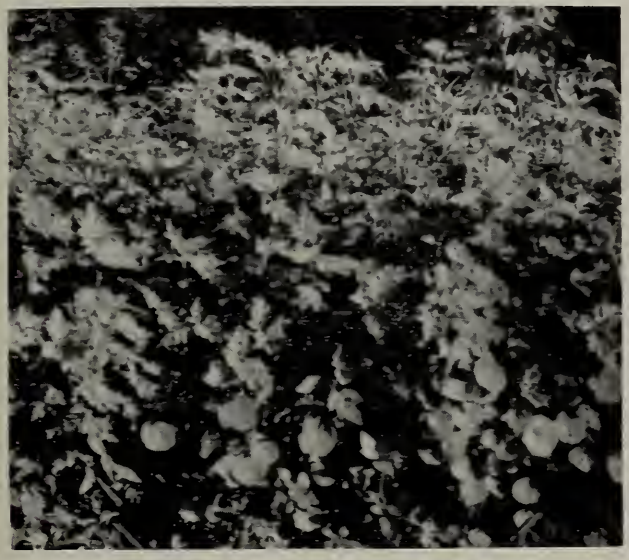


Fig. 3. Geriatric chrysanthemum culture. New cuttings taking root.

recited that will represent efforts beyond the abilities of the invalid. However, the stubs that remain will grow into "bushy" mums and may be thinned and re-planted.

But the new cuttings for the infant nursery are routed to a shady spot, or into flats, placed in pencil holes, 1½ inches deep, row upon row, only a few inches apart. They are watered every other day for about a month, or until there are created definite root systems of sustaining quality. Now, the transplants are lifted out of their nursery and given a new sunny home, placed in holes at least 6 inches apart. Once more there must be waterings three times a week, against the wilting rays of the sun. Wheel-chair invalids can do the watering, while those whose knees will bend, can still perform the nursery work.

These little ambitious mum plants will bloom the first year, and over half of them will survive the first winter and become cold-seasoned stock.

In a geriatric home there are many swappings

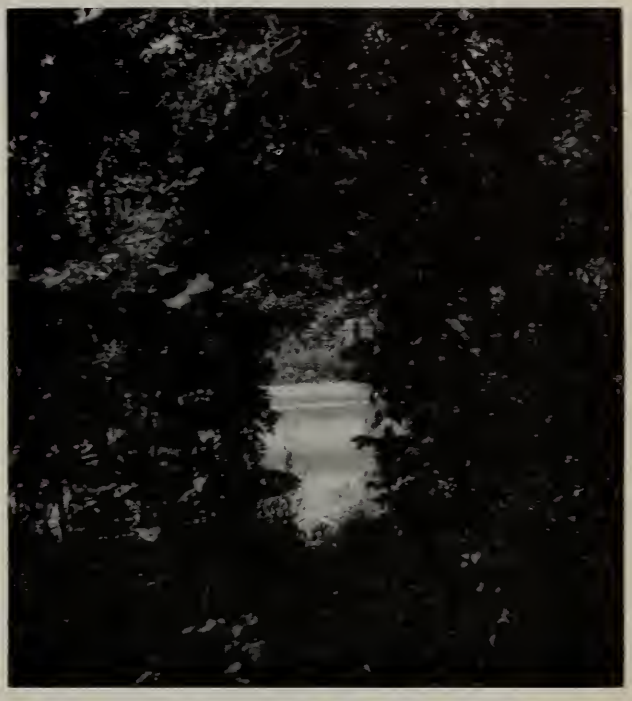


Fig. 4. Bird watcher's paradise for geriatric enthusiasts.

of prize transplants, and beautiful specimens may be potted in the fall and brought into the sick rooms. Joy is created for the giver, and much rich reward is observed in the countenances of the recipients.

This is more than "Podunk at play," I can assure you.

Such a project is recommended both for the vigorous and the timid samplings of geriatric humanity. Names of the home-bound may thus be added to the receiving lists of Golden Age Clubs.

Bird Watcher's Paradise

For the elderly bird enthusiasts, including myself, I have planted in the woods double row cuttings from many vines and shrubs, namely: the nine-bark, spiraea, honeysuckle, lilac, rosa multiflora, red-branched dogwood and wisteria. There should be at least 6 feet of space between the rows. As the young shrubs shoot up over head height, I bend the opposing canes and intertwine the tops, securing them with green garden tape, reinforced with wire center. A continuous wood bower is thus created.

The next year new growths shoot upward from the intertwined loops. These growth centers provide perfect nesting sites for such fluttery friends as robins, catbirds and turtle doves. The berries on the honeysuckle and rosa multiflora hips become good provender, extending even to chilly weather. An elderly observer can lie on his back, and with a pair of binoculars in his hand, may indeed enter the bird watcher's paradise. Then follows identification of species, with notes to be made on family habits, for here is one place where the household still exists.

The question is raised as to the heroic demands placed upon the elderly for enjoying such an escapade. Of course, the wheel chair invalid is *not* excluded. Also, anyone who can walk or creep may indulge. I have had the exquisite experience of observing enthusiasms for the bird watcher's path entirely outdistance the complaints of the complainers. Timid souls have turned into "eager beavers."

These paths, if properly constructed and lined with wild flowers, will permit one to walk through with ample head room, and without being strangled by the lush growth overhead.

Such an experience adds activity and hope to the elder years. Work progress and species identification may be transported to the sick room with glowing account. There is pride in the program from both ends.

African Violet Jungle

Being an unorthodox person of *esprit fort,* I have "taken it out" on the African violets, in creating jungles of these rather apologetic plants, which finally wend their way towards the elderly bedside. For a container, I select a large earthenware crock, about 8 to 10 inches in diameter, which is filled to within an inch of the top with a well-rotted leaf mulch. The very top fill consists of sand. Both fills are moistened down. A sharpened lead pencil furnishes an excellent planting spud. About twenty-four holes are made in spiral fashion, beginning in the center and ending up at the periphery.

Selected leaf cuttings are made from several African violet species. I employ vigorous leaves of size that are not quite through their advancing growth cycle. The stems should be a good 2 inches long. If there is any question of disease I wash all leaves quickly in a "gladiolus dip," then touch the stem ends into the "mud" of root hormone and water. Each stem end is lowered by a bed invalid into a pencil hole, taking care not to let the leaf quite touch the sand level. The eraser end of the pencil makes an excellent tamping instrument, and soon all the leaves are secure in their new bed.

A large pan of water under the crock should be filled twice a week.

Formerly, I placed a large glass bowl over the entire set-up, serving as a miniature greenhouse, but I fear this practice encourages the growth of molds. Hence it has been discarded.

The pot is placed in the window of a geriatric sickroom or in the sunparlor of a geriatric home. Finally, tiny leaves, the size of a baby mouse's ear, begin to develop. These little plants assert themselves, and finally a "violet jungle" appears. The mother leaves will continue to grow with their children.

After the invalid has enjoyed her jungle, one may separate the plants into individual pots, and the cycle begins all over again. However, from some devilish impulse, I have let an occasional violet jungle fight it out. There results a profusion of leaf and blossoms that is a panachure to behold, even though all rules are broken by such an addlepated procedure.

An oldster feels much vigor of life at his command.

If a geriatric Scotsman is hovering near, he may cut off the mother leaf from a young hopeful plant and compel it to perform its hard task all over again—the second time in a new future jungle.

Some of my elderly patients in a geriatric home have dozens of African violet plants on a series of glass shelves in a picture window. There is much fussing and fuming over these green children, with face-to-face relationships. Even wheelchair invalids with gnarled hands see no limit to their activities in such related endeavors. *Physical problems become diluted by creative endeavors—and sad personalities no longer clutter up the landscape.*

Dwarf Tree Culture

For many years I have admired the Japanese culture of dwarf trees and have attempted to simulate this technique for the geriatric sickroom. Since time is of the essence, I must of necessity find a quickie substitute for the pleasure of some

elderly cancer patient, who may possess only a limited life yet remaining.

I have hit upon the Babylonian weeping willow as my particular victim. In winter, and as late as March, I select small but stout end branches with a good weeping pattern, that do not greatly exceed 2½ feet in height, after careful pruning. The butt end is placed in a water-filled milk bottle containing a dash of root hormone. In a few weeks, myriads of white roots appear. Also, the tender chartreuse leaves begin to unfold along the more vigorous stem ends.

Soon comes potting time, and one must be careful not to break off the delicate rootlets. This is accomplished by letting the butt end be gently surrounded by moist leaf mold, supporting the miniature tree in a vertical position. As the earth and leaf mold settle, the roots find their positions without trauma.

This little tree has a personality to share and soon is demurely working away at life, *with enough backbone to stand erect and enough humility to weep at the top.* It is now ready for a "social spread" in the bedroom or sunparlor or activities room of a geriatric home—not to exclude a private residence. Generally, I wrap the pot in aluminum foil to doll up the situation at presentation, just for the glitter effect.

One blind old man fondled his tree and wept silently. It was the only "relative" that he possessed.

After the first good frost, I have also imitated the "March pattern," stripping the lighter twigs from new cuttings off the mother tree. In the warmth of the rumpus room, new buds appear, and one can produce a fine dwarf willow for the Christmas holidays.

Some of my elderly patients want their trees to grow up. If there is a spot in the yard of about 500 square feet to spare—and not too near a drain pipe—the deed can be consummated. Just plant the little fellow in the center of such an area, and in few years' time a beautiful Babylonian weeping willow will grace the countryside.

Some of my old ladies now grow their own dwarf trees for other and more feeble invalids, by starting stock from their own "plantation" or "touching" me for new material.

There is much hope and a great deal of joy awaiting the confined invalid by having within grasp his very own *"forest in miniature."* Again—*life reflects life.* The problems of a hopeless cancer patient are slightly unburdened for the fleeting weeks yet spared.

The dwarf tree "chum" of the bedside and the human patron bear a mutual good morning of delight.



Fig. 5. Dwarf tree culture for the geriatric sick-room.

Wisteria, The Hanging Gardens of Babylon

In my gardens I have maintained many hidden *woodsy paths and bosky dells,* joining at times with the "bird watcher's paradise." At intervals I have trained wisteria vines to arch over a sunny opening in a garden path. Many oldsters have admired the beautiful lavender pea clusters, bobbing in the wind, and have requested that I start slips for them from these Hanging Gardens of Babylon.

To carry out such a plan, I select 8-foot runners, a year or more old. Each is folded back upon itself, forming a 12-inch loop, but not severed from the mother plant. The bow end of the loop is slightly excoriated, dipped in root hormone, then lowered into a 12-inch hole. The earth is tamped

firmly about the afferent and efferent members. After a good two years of rooting, the "umbilical cord from mamma" is severed, and the new plant is on its own.



Fig. 6. Felix, the wisteria, climbing to high heaven on the wild pear tree, producing the hanging gardens of Babylon in a geriatric garden.

The next spring this new individual vine is dug up along with a definite degree of root protection, potted and presented to some energetic or hope-requiring geriatric gardener.

Some of my "wisteria children" are thriving in Chicago, Denver, Orlando and in many Michigan communities, without any evidence of botanical frustration. For the devil of it, I have named each vine missionary *Felix I, Felix II* and so on.

One of my gift ladies soon learned the hang of "runner culture." She took me into her garden. There was *Felix XII,* proud as punch. But near the parent, nobly waving tendrils in the breeze and living an independent life, was—*Felicia!*

Of course there must be quite a *biological kick* left in a geriatric soul, who deals with contumacious woodsy paths and bosky dells. I ask no more of these people in physical endeavor than I expend myself, and I have honored many a Doubting Thomas by performing as pallbearer at his elegant funeral.

Also, some of my vigorous patients have trained their "Felicias" over the windows of certain shut-ins, who are confined or partially disabled.

"Doing" is great fun but "receiving" is also a joy. One church group has organized a Golden Age Club around the theme of making the Hanging Gardens of Babylon bring inspiration to the poor in heart, whether the shelter be palace or hovel.

The Hand-Carved Mirror

Many old men and a few old women have newly taken up my old hobby of mirror carving. I select a good piece of western white pine, about 1½ inches thick and of dimensions to fabricate a moderate-sized mirror, say 16 x 24 inches, or thereabouts. There is no hard and fast rule. I outline on the slab of wood the design of the future mirror frame, giving indications as to the depth of carving and where the cutting should reach to the future



Fig. 7. Geriatric "art": hand carved mirrors, followed by flamboyant paint-brush.

glass level. Niggling flowers, leaves (plain and fancy), cathedral windows—nothing need faze one. In this field we are all amateurs, and therefore, no apologies are registered, much to the consternation of certain critical observers.

A good set of hand chisels—plain, mitered and grooved—will suffice for carving. One soon learns when to push, when to shove, when to wiggle and when to touch ever so lightly. Sandpaper of several degrees of coarseness, applied in series, will grant a snappy finish to the work.

If a portrait is desired as the center of a filagree pattern, the work portion of the slab is lowered by chiseling a half inch or so in depth, sanding to a nice level, leaving a frame thus established as the untooled surrounding area.

The art tracing is instituted upon this depressed level, and the carving work proceeds towards some attempt at a simulacrum of the original pattern designated.

Finally, after both vigorous and delicate sand-

(Turn to Page 2025)

(Continued from Page 2020)

ing, a groove is created in the rear to hold the future plate glass mirror.

Now, finally oil painting comes to the front. One need not be timid. Many a dowager has let her sobriety fly to the winds with a risque flourish. I have created a metallic green to accentuate leaves by mixing blue and gold paint. A blond urchin, peering through a cathedral window, receives her tone of tow-headed hair, slightly soiled, from the mixture of white and gold paints. Patterns of aurora borealis may splash the border.

It is better to employ no glue or laminations, since they prevent good chiseling techniques and are apt to warp in the future. A solid slab of seasoned wood is the best choice for the geriatric attack.

The finished product possesses a frame of carved, sanded and painted art, and the inserted mirror of plate glass will last anyone's lifetime.

Any geriatric soul, male or female, with a yen to fiddle with the fingers (deformed or otherwise) becomes an *expert* by the time a third mirror has emerged from the *department d'cauchement* in the basement. The fortunate giver grants with magnanimity. The invalid recipient may sing her paeans for the moment, but she later primps for the future.

Many a haggard old harridan, after receiving a flamboyant geriatric mirror makes a bee-line for the beauty parlor, joining the doll-up, dress-up, clean-up, wash-up campaign.

There is created a new majesty from within by reflections from without.

Other Possibilities

There are myriads of other possibilities in the geriatric husbandry and rehabilitation fields where dynamics of the elderly could be elaborated upon. Here one could mention the bedside cotton gardens over glass water containers and the miniature cactus garden. Let me also include *Bryophyllum* culture from the hanging leaf plantlets, the creation of the New England Tizzy flower arrangement, to say nothing of the lesser creative arts.

In the appendix of a previous paper,[22] I have outlined some thirty-two challenging suggestions.

Summary

In delving into the dynamics of geriatrics, I have attempted to reveal that a physician now enters a very real part of community living. His job is not only to treat the body, but he must enter into "the dry husks" of older years and help add activity, hope and self-respect to the poor in heart.

Our older fraction of humanity which will soon equal our public school population, is indeed a treatable entity. The ideal physician and the hoary patient find mutual identification with each other.

Several forms of husbandry have been outlined, whereby old people may come back to a life of self-help and self-betterment. I have introduced bird breeding, hanging herb gardens, mum cultivation, bird-watcher's paradise, African violet jungles, dwarf tree culture and the Hanging Gardens of Babylon. I have also outlined some of the detailed possibilities in the creative fields of wood carving and oil painting.

If such subjects become distasteful to you, let me hopefully suggest that they well might stimulate some further personal dynamics in fields far removed. I shall still feel rewarded, if something constructive sprouts from a stray seed.

Let me mention again that the untouched and unmentioned fields are numerous and indeed inviting. You hereby receive my invitation to begin digging in your own bailiwicks, in your own stylized manner. However, gimble up, raise that pickax and let fly!

715 N. University Avenue

Bibliography

1. Arthur, Juliette K.: How to Help Older People. Philadelphia: Lippincott, 1954.
2. Bortz, E. L.: Making life longer and better. Geriatrics, 8:510-516 (Sept.) 1953.
3. Bortz, E. L.: New goals for maturity. J. Gerontol., 9:67, 1954.
4. Bortz, E. L.: Stress and aging. Geriatrics, 10:93-99 (March) 1955.
5. Cecil, Russell L., and Loeb, Robert F.: A Textbook of Medicine. Philadelphia: W. B. Saunders Co., 1955.
6. Chalfen, Leo: Planning leisure-time activities of the aged. Geriatrics, 10:245-247 (May) 1955.
7. Dorsey, John M.: Upon considering my age. J. Michigan M. Soc., 52:523, (May) 1953.
8. Downing, Joseph: Factors affecting the selective use of a social club for the aged. J. Gerontol. 12:81 (Jan.) 1957.
9. Editorial: Recreation for the aging. Geriatrics, 2:134 (May) 1947.
10. Gorman, Thomas: Camp for the elderly. Today's Health, 33:34 (May) 1955.
11. Granick, Samuel: Adjustment of older people in two Florida communities. J. Gerontol., 7:419 (July) 1952.
12. Harris, Raymond: The challenging of aging. J. Am. Geriatrics Soc., 2:210-215 (Apr.) 1954.
13. Homberger, Freddy: The Medical Care of the Aged and Chronically Ill. Boston: Little, Brown & Co., 1955.

(Continued on Page 2050)

Atherosclerosis *VERSUS* Inherited "Iron and Copper Pipes"

By Henry J. VandenBerg, M.D.
Grand Rapids, Michigan

IN the voluminous discussions of atherosclerosis these days, genesis is given a great deal of emphasis presumably in the hope that something may be found to prevent or control it. Factors in the genesis of atherosclerosis mentioned are heredity, sex, hormones, obesity, hypertension, poorly controlled diabetes, hypothyroidism, familial hypercholesterolemia and others, but the greatest emphasis, by far, is the role of dietary fats. I do not want to disclaim any of the possible perpetrators mentioned, as factors, but I think the matter of heredity needs emphasis. In fact, heredity comes to the fore at the very outset in that the atheromatous spots and plaques are preceded by inherent anatomical and metabolic defects in the intima. That view seems to be generally accepted rather than the opposing view of deposition of lipids coming first. The evolution of the depositions does not need to be recounted here.

The quality of the piping in a plumbing system as well as the corrosiveness of the fluid passing through the pipes determines the scaling and rusting that takes place. For example, everyone knows that iron pipes corrode and fill up sooner than galvanized pipes. It is also known that irrespective of the corrosiveness of the fluid, copper pipes do not take up corrosive substances from the fluid passing through them.

All physicians are familiar with the characters and qualities they possess by virtue of ancestral transmission, in other words, inheritance. Longevity certainly is one. Osler's aphorism, "one is as old as his arteries," was an observation and deduction by a master clinician that is still good.

In routine autopsy work, it is always striking to note that those in the eighty and ninety-year-old group are relatively free from atherosclerosis. They have died of something other than vascular disease. They have inherited "copper pipes." Most of them, no doubt, have been on a normal diet without restriction of animal fats.

From the Blodgett Memorial Hospital, Grand Rapids, Michigan.

Here is an overly nourished German restaurant man, a beer drinker and a pork eater. At the age of sixty-eight, he died of carcinoma of the large bowel. At autopsy, it was striking how free his aorta was of atherosclerosis. His coronaries and cerebrals were wide open. No spotty deposits or narrowing from lipid deposits in the vessel walls could be found. He had inherited "copper pipes."

Any clinician of large experience can recount stories of families in which there have been multiple coronary deaths that were out of line and way ahead of established rates per 100,000 of coronary deaths.

A friend and colleague, Dr. Robert Puite, internist in Blodgett Memorial Hospital, gives me these stories of three families in his practice with "iron pipes." Three cases of atheromatous plaques in brothers between forty and fifty years of age, all in the carotids and basilar arteries (two by arteriograms); in other words, all in the cerebral circulation. In the Kiel family, four brothers had coronary occlusion, one at thirty-nine and the other three in the forties. The father died of a coronary attack. In the DeJonge family, three out of four brothers had had coronary occlusion by age thirty-nine and the fourth at age forty-four. Such stories make a strong case for inheritance. In these cases, such alleged incriminating factors as diabetes, hypertension, hypothyroidism, familial hypercholesterolemia and others were absent.

The more profound knowledge one has of medicine, the more one's interest turns to the validity of inheritance. Let us turn to cancer for the moment—its susceptibilities and immunities and its racial and geographic variances. To cite a few examples, cancer of the alimentary tract is relatively more common in men than in women, while cancer of the reproductive organs is more common in women. In the Netherlands, cancer of the breast and uterus is said to be about one-half as common as in England, but cancer of the gastrointestinal tract is much more common. In Japan, cancer of the breast is also relatively rare but cancer of the

uterus is common. Negroes and Orientals seem to be relatively immune to carcinoma of the thyroid. Jewish women rarely have cancer of the cervix.

The retinoblastoma of young children as it occurred in families in the earlier days was thought to be a sporadic occurrence. Now it is definitely considered hereditary.

Recently a woman patient had a blue-black mole on the forearm. When told of its potentiality, she said, "My sister who is here with me has one and my mother also, and all in the identical location." It is impossible to believe that such instances do not represent some hereditary factor in the germ plasm which acted as a determiner for these lesions.

It is not my intention to discuss or review the entire subject of atherosclerosis and the alleged contributions. I shall limit what I have to say about it, and briefly, to the relationship of ingestion of animal and hydrogenated vegetable fats which are given such great emphasis and study.

From the literature, including panel discussions by experts, one has to conclude that while cholesterolemia can be lowered approximately 25 per cent by rigid diets restricting animal fats these authorities are not yet convinced a high cholesterol value necessarily increases the deposition of lipids in the vessel walls. Therefore, the matter of disciplinary diets to avoid atherosclerosis and so alter or change the incidence of coronary or cerebral artery disease may not be indicated. So there we are!

The little advancement being made with this troublesome problem is probably because atherosclerosis comes within the realm of degenerative diseases about which little or nothing at present can be done. One wonders whether anything ever can be done. They certainly are just as potent as ever. Gray hair and wrinkles belong in this same category.

It has been said that atherosclerosis can be prevented because there are millions who do not have atherosclerosis, at least not to the point where it causes illness or death. My point is that those who are relatively free from it, many of whom no doubt have been on normal diets including in many instances generous amounts of animal fat, do not have advanced atherosclerosis because they have inherited "copper-pipes."

In support of my contention, allegedly perpetrating factors such as diabetes, hypertension and hormones also come within the realm of inheritance.

The old trite saying, "If you want a long life, choose your parents and grandparents," is to the point; in other words, a favorable heredity is the important factor.

Should the time arrive when a rather definite relationship between the intake of animal fats and atherosclerosis is proved, one wonders how much credence will be given it by most people insofar as changing eating habits is concerned. For instance, the relationship between lung cancer and cigarette smoking is definite and proved and has been widely publicized and yet the cigarette smoker takes the attitude that "it is not going to strike me." He thinks of it as lightning. It is going to strike the other fellow. It is that idea that has always prompted me to believe that cigarette smoking would be restricted very little.

Those who are relatively free from atherosclerosis at an advanced age have inherited "copper-pipes." They die of something other than vascular disease. Those who go along to the older age level and then develop coronary and cerebral disease may have inherited "galvanized pipes." Those who die from atherosclerosis between the ages of forty and fifty years have inherited "iron-pipes." The "plumbing" seems to be basic, the circulant only contributory.

RAGWEED

Ninety per cent of all the ragweed so intensely hated by hay fever sufferers could be eliminated every season if farmers plowed their grain fields early in August, says a University of Michigan meteorologist.

James B. Harrington, research associate for the University of Michigan Research Institute, says also that a significant amount of the remaining plants could be killed by spraying a six-inch wide strip of highway shoulders where the grass meets the gravel.

Then, to seek further comfort, Harrington indicates the "victim" should make sure there is no ragweed in his own garden.

One of a number of U-M researchers conducting a five-year study of hay fever for the National Institutes of Health, he reports surveys of grain fields revealed "fantastic" numbers of ragweed. Since the plants begin to bloom early in August, plowing them under would put them out of the way for the season.

Learning to Live in the Community

A Sociological Analysis of Some Problems in Teaching Community Roles to the Mentally Retarded

By Christopher Sower, Ph.D.
East Lansing, Michigan

THIS paper is based on the premise that there have been developments in the social sciences during the last decade which can be used in helping many types of handicapped persons become more useful citizens in the community. It seems obvious that the social service and other practitioner fields have lagged in learning to apply the new theoretical and empirical knowledge which has been developed through social science research. This is illustrated by a statement by the great physicist Robert J. Oppenheimer in a recent Cooper Union lecture on "Analogy in the Social Sciences." He stated that new knowledge is developing at the fantastic rate of doubling every decade. This applies to the social sciences as well as other fields. In the absence of systematic efforts on the part of the social and other professions to master and apply new theory and validated information, it is not surprising that there now is a great lag between existing knowledge and its application to specific problems such as to the education of the handicapped.

This paper will attempt, in much too brief a time, to present to a non-social science audience some possible applications of new knowledge to understanding personality development and social adjustment as they pertain to different points in the social structure of the community. This effort requires several steps which will represent a somewhat different approach from that which is customary for most members of the audience. It is probable that most of the attention of people working in the interest of handicapped persons has concentrated on the physical and psychological individual. Two ideas merge at this point. It is obvious, first, that all persons must learn to live in groups, consisting of families, friendship groups, schools, work groups, et cetera. Second, as the sociologist, the anthropologist, and the social psychologist have concentrated on study of such group behavior and the ways in which individuals learn to fulfill what is expected of them in different social situations, it seems obvious that these fields have a legitimate contribution to make to the primary interests of this conference. Of necessity, the first problem of this paper and its primary concentration will be on existing theory and empirical information about the social structure of the community, and the ways in which the individual enters the sociological community and performs according to the expectations of the community social systems. This means as a minimum, at least a brief consideration of social system theory as it pertains to the community.

The second problem will be some attempt to apply theory to the problems of understanding the personality development (in itself a social as well as individual entity) and the social adjustment of the mentally retarded child as he becomes socialized into appropriate social roles within the community. A third and final effort of the paper will be a brief consideration of some of the problems of applying existing theory and established knowledge to programs which deal with the education and social learning process of the retarded persons in our communities.

Before dealing with these three problems, it will be helpful to consider briefly, at least, one major contribution of the traditional social problems field. It seems plausible that a major change has been produced during the last half century in the beliefs of many people about the causes of physical and mental handicaps. Such beliefs, at least in the Western world, now are much more in line with scientific evidence. They appear to have gone through four historic stages:

1. For centuries man believed that physiological states were based on supernatural causes. People

Dr. Sower is Professor, Department of Sociology and Anthropology, Michigan State University.

This paper is based on a presentation to the annual conference of the Michigan Association for Retarded Children, Albion College, Albion, Michigan, June 27, 1958.

were supposed to possess demons, spirits, and the like. Also, such physical states were believed to be punishments for evil and sinful behavior. In Christianity, it was believed that the sins of the parents were visited upon their children and even upon grandchildren. The belief in traditional Hinduism is that handicapped physical states of the individual are based on his own sinful actions in a former life; and can be corrected in the next birth only by meritorious actions in this life.

2. With the dawn of the scientific era, the idea of natural processes and natural causes became prevalent.

3. The era of the development of the biological sciences, however, produced the belief in hereditary determinism of physiological as well as personality states.

4. Gradually evidence upon evidence has provided the proof of the basic idea that personality is the result of the impact of the society upon the biologic individual. This leads to the present fairly well-established and accepted premise that the most important consequences upon the development of personality are from the growing-up process in the community. They are physiologically determined to only a minimal degree. In fact, one of the most recent developments in medicine is the knowledge that some physiological illness is determined by mental states, which, in turn, are directly related to the individual and his social relationships.

Now to a brief consideration of the three problems mentioned above.

The Community as a Social System

There is space here to deal with only two of the elements of the community social system: *position* and *social role.** Some definitions are important. The concept *culture,* as used in the social sciences, provides the primary orientation and base for the social system. The culture consists of the total body of beliefs, practices, and artifacts which are passed on from generation to generation in any society. The *social system* is any group of two or more persons who are in meaningful interaction, and the patterns of group content, its organization, and control which affect the behavior of its members. The sociological community is defined as a social system. It contains a multiplicity of subsystems consisting of neighborhoods, families, and a wide variety of groups based on friendship, occupations, religion, education, et cetera.

Within the sub-systems there are many defined social positions which given individuals occupy at different life stages and at different times within any stage. While the concept *social position* (sometimes called status position) is somewhat hypothetical, it is understood more clearly and concretely by its accompanying concept *social role.* By definition, the role denotes the behavior which is expected of any individual as he occupies any given social position. Any society has its basic social positions organized around such fundamental categories as age, sex, and social status. Persons occupying different positions according to these categories are expected to behave according to the community definition and expectations of the position. The social role consists of rights, privileges, desired expectations, and obligations. Also there usually are defined patterns of extent to which deviancy is permitted for the different specific patterns of behavior within the role. Figure 1 attempts to illustrate the broad pattern of *position-roles* in any community showing the major categories of positions based on age, sex, and social status which exist in any community and any society.

Some further elaboration may assist in understanding the concepts position-role. They were first developed by the anthropologist Ralph Linton.† His classic illustration of the position of the driver seat in an automobile still is very useful. He compared position to the vacant driver's seat, and showed how there were no role obligations until it was occupied by a person. Any person must have the socially-defined right to occupy the driver's position, and this has age and other limitations. Likewise, there are limitations to occupancy of most positions in any community. Young people cannot occupy positions normally

*According to Loomis and Beegle, the social system contains the following elements: Beliefs, Sentiments, Ends or Objectives, Norms, Status-Roles, Power (Authority and Influence), Social Rank, Sanctions, and Territoriality. *See* Charles P. Loomis and J. Allen Beegle: Rural Social Systems. Chapter 1. New York: Prentice Hall, Inc., 1950.

For further treatment of the concept social system, see also, Talcott Parsons: The Social System. Glencoe, Illinois: The Free Press, 1951.

†Ralph Linton: The Study of Man. New York: D. Appleton-Century Co., 1936. (See Chapter on Status, and one on Role). He used the term status for what is now coming more and more to be labeled as position, in order to avoid confusion with the general meaning of the concept status as a position in a social hierarchy.

allocated to adults or aged, males cannot occupy positions held for females, and the difficulties of crossing the social class lines are well illustrated in technical literature as well as in fiction.

As with the illustration of the automobile driver, once any given person occupys the position, then certain definite rights, privileges, and obligations are impinged upon the occupant. While any occupant is allowed a certain amount of deviancy, he likewise is granted praise for successful fulfillment of high skills in the role, and criticism for low fulfillment of expectations. Sometimes there is conflict between different roles which are impinged upon a given person such as between the feminine role and the roles of the auto operator or performer of other mechanical skills. Traditionally, for instance, femininity was considered inconsistent with ability to use mechanical tools. It is probable that certain basic roles such as those pertaining to a demonstration of masculinity and femininity in the culture usually are rated ahead of others, and will take precedence in case of conflict.

There still are problems in arriving at sufficiently precise definitions of the concept social role for research purposes, even though these are being developed rapidly. There is also the problem of disagreements in role definitions between important determiners for any given role and lack of consensus for any given position. The classic illustration of non-consensus is the difference between parents' definition and that of a teenager's peer group as they impinge upon the individual. From this, what has come to be called *reference group theory* has developed, indicating that the individual becomes selective in determining which role definition is to be followed in different situations. Modern life apparently contains many fairly inconsistent role expectations leading to a whole new area of analysis pertaining to the relationship between how roles impinge upon any given person and how this situation affects the development of emotional stress and mental ill health.

There are situational differences in role definitions. A person behaves differently, for instance, even in his family, when the members are alone, or when an outsider is present. There is the classic obligation that one must remain loyal to his most basic membership groups when they are attacked by outsiders. One should not "wash dirty linen in public."

One role alteration is of particular interest to the field of medicine. This is the alteration of role expectations of the person who becomes sick as well as those of others who are related to the sick person in significant ways. When one becomes physiologically ill, he is obligated to enter the socially-defined "sick role," and behave like a sick person. This in turn alters most of his social obligations, rights, and privileges. Also the obligations and rights of "significant others" are altered. When a man becomes sick, definite new obligations set in for his wife, children, neighbors, and work companions. When a woman becomes sick, there are role alterations for her husband and children, as well as those of the husband's work companions in case he has to stay at home to take care of his family.

There are especially interesting implications of the sick role as it pertains to chronic illness. Some people who are medically-defined as physically ill refuse to enter the socially-defined sick role, as in the case of some cardiac patients. Also, occupational rules may not permit a person to stay home from work in a sick social role even in order to carry out a physician's recommendation that this is to be done in order to prevent more serious illness. Many physicians refuse to enter the sick role even when they know that physical illness is apparent. Some people, who cannot be medically defined as physically sick, seem to desire to enter the sick role. There is a classic literature of apparently medically non-sick people attempting to use the socially-defined sick role as a means of controlling the role obligations of others toward them. This should be sufficient to illustrate briefly some of the implications of role theory. Some readers may be interested in further reference in these areas.**

The next problem is to relate role theory to retardation.

**Neal Gross, Ward Mason, and Alexander McEachern: Explorations in Role Analysis: Studies in the School Superintendency Role. New York: John Wiley and Sons, Inc., 1958. (See especially the first four chapters for an excellent summary of knowledge about role theory.)

Talcott Parsons has developed some interesting ideas about sick roles, and modern medical practice: Talcott Parsons: The Social System. Glencoe, Illinois: The Free Press, 1951. See Chapter VII, Deviant Behavior and the Mechanisms of Social Control; and Chapter X, Social Structure and Dynamic Process: The Case of Modern Medical Practice.

§Some of the available literature has been complied in the following book: Jessie Bernard: Social Problems at Midcentury; Role, Status and Stress in a Context of Abundance. New York: The Dryden Press, 1957. Chapter 10.

Mental Retardation: Role Understanding and Role Fulfillment

The application of role theory to mental retardation still is in the speculative stage, even though certain conclusions seem rather obvious.§ Normal people in any community of any society are expected to be able to learn the role meanings and role expectations which are assigned to the occupants of various positions. As many social roles have complex meanings, it would seem obvious that persons at different lower levels of mental ability would have a progressively more difficult time in learning the role meanings and in performing role expectations. While any society must have some social positions for the severely handicapped, still there are the borderline areas where normal expectations may be impinged upon persons who do not have the ability to carry out the role performance.

Some roles would seem to present special difficulties. In our culture, those pertaining to humor, kidding, and courtship carry complex and diverse meanings. Much kidding, for instance, presents a situation in which the individual really is expected to respond to the actions of others in a manner exactly opposite from that which a literal interpretation would indicate. He is supposed to laugh at a practical joke, for instance, when it would appear that he has been insulted. The traditional bullying character of some mentally retarded males probably is a direct result of their inability to understand the double meanings in kidding roles. Likewise, the retarded girl would seem to have difficulty in differentiating between genuine praise and flattery. The use of flattery has very widespread and diverse meanings in our culture. It would seem to present special problems to the retarded girl in such instances where, for example, she must

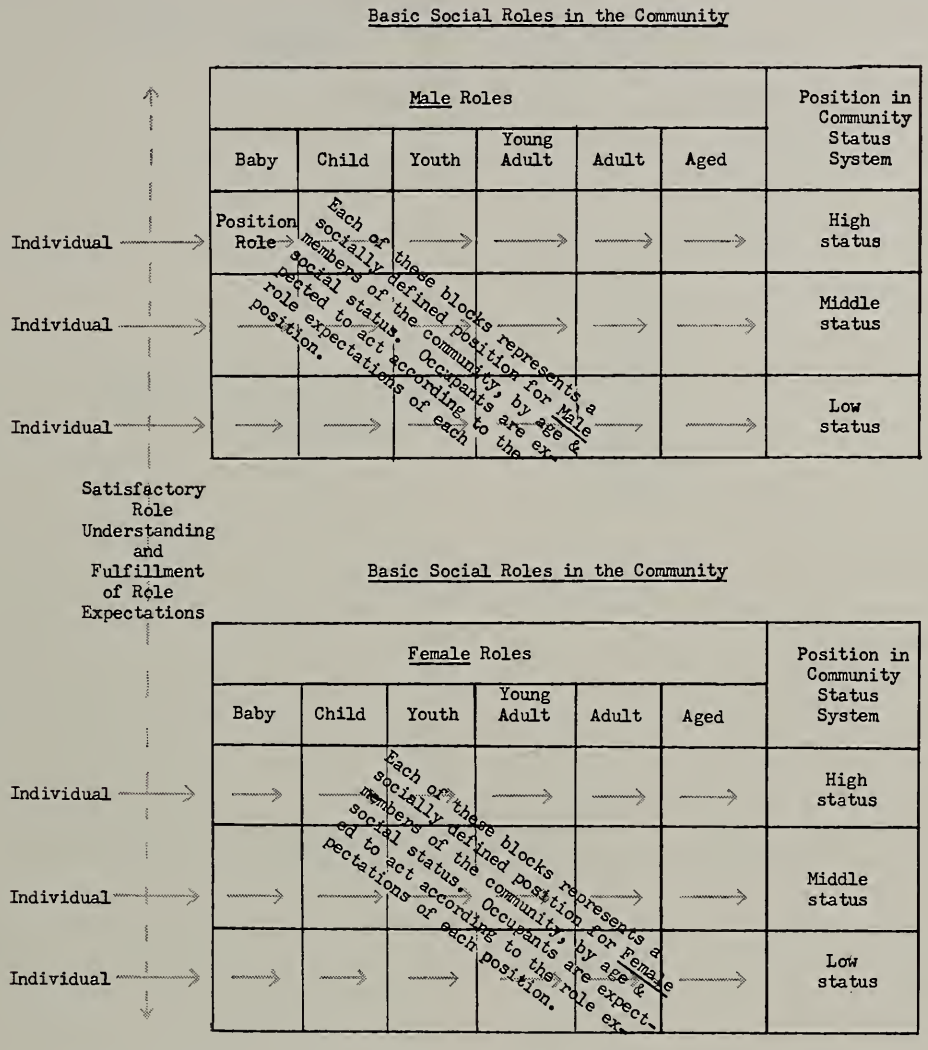


Fig. 1. Model for the development of a satisfactory social personality.

learn to distinguish between genuine praise, and the use of flattery as a means to gaining other ends, such as in sexual exploitation. Even with little research evidence it would appear plausible that some of the major difficulties of the retarded hinders the ability of the individual to understand and perform expected social roles. This in turn will likely develop more emotional stress, and so forth. Some of the problems of blockage in role performance are illustrated in Figure 2. Even

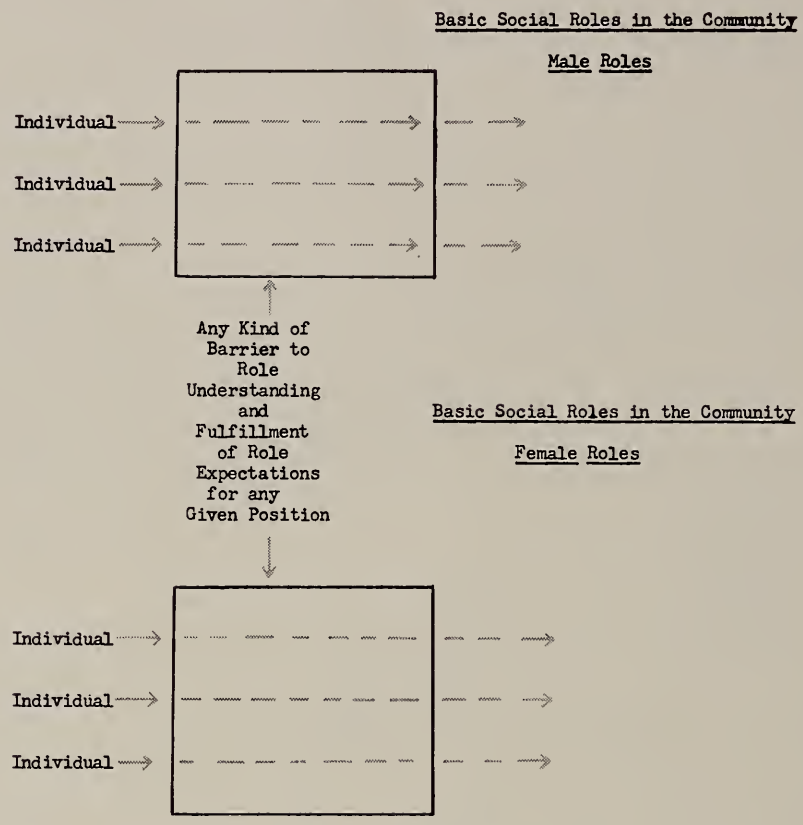


Fig. 2. Model for the development of an unsatisfactory social personality. Details are the same as those pictured in Figure 1.

are in understanding complex role meanings. Also, there is increasing evidence that the social personality is formed, at least in part, from the perceptions which others hold of any given individual. It would seem obvious that most retarded persons are perceived as different by others with whom they come into contact. This evident fact must eventually be resolved in some way by the retarded person.

One implication of role performance problems for retarded persons would seem to have a direct relationship to mental health. If a person is expected to perform actions which he is not capable of enacting, there is a possibility of emotional stress developing. If this occurs, a well-established result probably develops in that emotional stress is likely to inhibit the performance of many bodily functions, including the learning process. In this instance, a vicious circle theory can be developed, as blockage in the learning process only further

though there is little research in this area, mental retardation would appear to be only one of many possible barriers which can prevent or hinder role understanding and role performance.

There would seem to be two general clues from the above which can be used to assist the growing-up process of retarded persons:

1. Alter the expected social role expectations for given individuals and situations, and plan them in accordance with the performance ability. This would seem to apply to all levels of intelligence. The American school system has been especially vulnerable to the charge of attempting to equalize the expectations for all levels of intelligence. The traditional European system has avoided the mistake of setting levels of expectation which are too low for persons of high intelligence. While the American system has not produced the top level theorists, in most fields it

has educated a mass population. It would seem just as serious a mistake to expect middle level achievement from high intellects as to expect high level work from middle level persons, or normal level achievement from persons with a lower than normal level of ability.

2. Learn how to do a more effective job of teaching complex social role meanings and performance to retarded as well as to normal persons. While these two ideas are inherent in much of the work pertaining to educating the mentally retarded, still it would seem that more systematic research attention to these areas would be productive in developing more predictably effective methods.

One possible area for experimentation could come from certain practices which are being developed in what has come to be called group psychotherapy, namely the use of planned small group experiences as a teaching and learning device. Beck indicates how Dreikurs has called group psychotherapy "the third revolution in psychiatry."* Small group research, starting with the Air Force problem of how to construct effective air crews, has been one of the most active and productive areas of social research during the last decade. It would appear plausible that social role training for retarded children could make effective use of planned small groups. This kind of learning would seem to have far greater potentialities for teaching effective performance of community roles than the over-concentration on formal eduaction which seems to have characterized much special education.

A final idea relates to many other types of persons in the population which have handicaps. One can ask the question of what are the consequences upon any personality of being a useful citizen, as contrasted with those of being a useless person, or a liability to his society. There would seem to be increasing evidence that the socialization of personality is a consequence of the total living situation of the individual, and that it continues into late old age. Contrast, for instance, what happens to the personality of old people who remain active and useful with those of many thousands who only sit out their last years in a useless life in an old age home. What are the ultimate possible consequences upon the total society if it is unable to prevent the development of a larger proportion of "liability citizens?" Our society will likely have at least a half century of serious competition from the communist systems. In such a competition situation, we may discover that we cannot afford to have so many liability citizens sitting idly in communities, institutions, prisons, and old peoples' homes.

It would seem quite evident now that the social sciences have provided adequate theory and tested knowledge to develop and conduct significant experimental programs which can have the predictable results of producing useful citizens from many types of children who formerly have remained only in liability citizenship.† One advance conclusion from this knowledge seems obvious. This is that the accomplishment of such a task will likely mean a serious re-planning of many of our social, educational, and medical facilities. One of the most clearly established facts is that early childhood periods are crucial for later personality and physical development. The customary spasmodic and chance planning for personality development cannot produce the desired results. Present theory and demonstrated fact clearly imply the need for consistent, systematic, and long-time planning. This probably cannot be accomplished with the present maze of duplicating, overlapping, and outmoted concept of social agencies. The pattern of the new urban atomic age is now taking shape, and the inadequacy of the present conception of many social services becomes increasingly evident. At the very time when urban and regional planning are designing and building new highways and other facilities for the new era, there is little systematic thinking, research, or planning for the social and physical needs of building an efficient and productive population. Yet, for the first time in history, the basic ideas for such planning are ready to be put into operation. One of these is the need for systematic planning for long-time research. It is only in this area that the writer claims some competency.

Some Research Considerations

This final section will be based on the premise that the social science fields now are developed to

*Dorothy Fahs Beck: The Dynamics of Group Psychotherapy as Seen by a Sociologist: Part I: The Basic Process. Sociometry, 21:98-128 (June) 1958.

†For instance, such a contribution has been developed in this area of delinquency. *See* Albert Cohen: Delinquent Boys; the Culture of the Gang. Glencoe, Illinois: The Free Press, 1955.

the stage of being prepared to make major contributions to the solution of some of the problems of retardation, as well as the other traditionally-defined social problems fields. These areas now lack the solid body of systematic research data which is needed to provide the necessary base of knowledge for adequate planning. Yet, as this paper has attempted to demonstrate, the basic theory and research methods are developed and ready to be applied to these fields. At the same time, it would seem that the social problems fields can learn some important lessons from other fields which have profited from a major concentration on basic as well as applied research. Two illustrations of this are in the fields of medicine and agriculture. Here, through the research functions of the medical schools and other university research programs, and of the public health departments, many phenomenal research findings have made major contributions to the field of medicine. Likewise, through the vast programs of the agricultural experiment stations of the state land grant universities and of the state and federal agricultural departments, similar developments have occurred in the many fields pertaining to agriculture. It would appear plausible that some similar organization of research effort in the social sciences which concentrates on the various social problems fields, would, over a period of a few decades, produce comparable results. An important feature of the above-mentioned successful research programs is that there have been systematic efforts to feed research findings back into action programs, and into professional training, both pre-service, and in-service.

There would appear to be a logical approach to research pertaining to retardation. The first step could be based on the observation that many types of retarded and otherwise handicapped persons in different community settings have passed through the growing-up process. Likewise, there have been various types of results from this process, all the way from useful citizen roles, to useless roles, to liability roles which languish in mental institutions and prisons. A systematic analysis of the consequences of this vast existing laboratory would seem to be the most logical first step. The second research effort could develop as testable hypotheses were constructed and experimental programs were ready to be conducted with children and adults. This then could lead into the usual research process of developing basic theory: testable hypotheses, and then actual experimental work. Findings could then be fed into action programs. It would appear that most of the traditionally-defined social problems fields have a common core of theoretical and researchable problems. Included in these certainly would be retardation, mental illness, poverty, alcoholism, delinquency, and crime, and certain areas of chronic illness. Many of the medical developments of rehabilitation and what has come to be called "social medicine" could also be included.

The final idea of the paper pertains to the nature of the research effort. There is one further characteristic of research in medicine and agriculture which may be its most important feature, and its most significant potential contribution to the social sciences. It would appear that the most successful research results have come from dedicated minds which are permitted to work for year after year on given problems. Social science has suffered from too much concentration upon vast social survey methods, instead of a steady approach to the development and testing of significant hypotheses. We have learned that even vast sums of money which are spent quickly do not provide a substitute for continuing concentration of research scholars upon problems in which they have a personal dedication. Medical and agricultural research has been much more characterized by this kind of persistency than has social science research.

The largest single problem in social research today is in the lack of continuing bodies of funds to provide for long-time research effort. We lack the facilities to permit a fine mind to spend year after year, and even decade after decade upon various research problems to which he wishes to dedicate his professional life. It takes years to train competent research personnel, and there is heavy competition for persons with such training and ability. Most research must be done at universities, and it is difficult to obtain and hold personnel without adequate and continuing funds to provide for permanent tenure. It is the firm belief of the writer that such a continuing research effort in the social problems fields would begin to pay dividends within a few years, certainly in less than a decade. With the vast public and private funds which are being expended in an almost

(Continued on Page 2061)

Editorial

THE HOUSE OF DELEGATES COMES THROUGH

Observations over the years have convinced us that groups who are given problems to solve and actions to take, if supplied sufficient data and adequate time for study and observation, will wind up with a very constructive action.

The House of Delegates of the Michigan State Medical Society is to be congratulated on its understanding and final actions which took place at the session in September and October, 1959. There was concern among many members of the Michigan State Medical Society and of the general public over the outcome, because of the apparent discord and disunity of the profession as reported in the public press and in the published controversial material in our own communications. The official minutes of the Annual Session are not yet ready for release but will be published in a special section of THE JOURNAL in January. Sufficient material is on hand, however, to assure our membership and our public that Michigan State Medical Society and Michigan Medical Service will carry out all of the promised and guaranteed services provided for in the service contracts now in force and being sold (over a million seven hundred thousand) which will run until 1961.

The House of Delegates advocated some changes in the present program such as a change in the method of determining the family income, a change in the upper limit for service contracts and a change in the procedure regarding payment of non-participating doctors. They also advocated a limit of two three-year terms for the Board of Directors. They recognized that the National Blue Shield is making a study of the Michigan problems and that the University of Michigan (sparked by the Governor's Commission) is also making a study of the basic medical service problems of the State through a grant of $327,000 by the Kellogg Foundation. They authorized the appointment by the House of a study committee to keep in touch with these various problems and these two study groups who will probably be reporting in the spring of 1960 with most valuable information.

Resolutions passed by the House of Delegates include the following, which are to implement certain changes:

RESOLVED: That the House of Delegates approve the issuance of such "Income not certified" policies as in keeping with the American tradition of freedom of choice, and be it further

RESOLVED: That the House of Delegates request the Directors of Michigan Medical Service to give each purchaser or group purchaser of its contract as the case may be, the option of choice of plans currently offered for sale and that the eligibility for service benefits under income-not-certified contracts be determined by mutual agreement between the physician and patient, and be it further

RESOLVED: That the Michigan State Medical Society continue to sponsor a prepaid medical care insurance plan such as Michigan Medical Service.

RESOLVED: That the Board of Directors of Michigan Medical Service be requested to amend its bylaws so that any member of the Board of Directors who shall have served two consecutive terms of three years each, making a total of six years, be ineligible for re-election for a period of one year immediately following the two consecutive terms.

RESOLVED: That the basis for service contracts be determined on total family income and that any preceding action to the contrary is hereby rescinded and be it further

RESOLVED: That as soon as feasible, the maximum total family income for service contracts be established at $6,500, and be it further

RESOLVED: That the present status of service contracts including the sale of existing contracts be continued until such time as these changes are satisfactorily implemented, and be it further

RESOLVED: That the Committee of the House of Delegates of the Michigan State Medical Society appointed to work in cooperation with the advisors from the National Blue Shield Committee for Review of Michigan Medical Service problems be instructed to include in its study the remuneration for the care of prolonged and/or complicated cases and be it further

RESOLVED: That this Committee shall report its findings and recommendations to the House of Delegates at the next meeting.

RESOLVED: To avoid this distinction between participating and non-participating physicians, it is recommended that the Michigan Medical Service incorporate on the Doctor Service Report form a statement of as-

(Continued on Page 2037)

AGING—A COMMUNITY RESPONSIBILITY

President's Page



Milton A. Darling

President
Michigan State Medical Society

During the past fifty-nine years, the life expectancy of the average citizen has increased by more than twenty years. Our present population comprises more than 15 million persons past sixty-five years of age. Percentagewise, this is about 9 per cent of the last census.

This manifestly represents a healthier nation. Medical and public health measures have reduced communicable diseases, infant and maternal mortality and industrial hazards. As physicians, this can be a source of justifiable pride.

But why should the arbitrary figure of sixty-five be established to separate the old from the middle-aged? Aging is a continuing process, beginning at birth and ending in death. History is replete with individuals who made their greatest contributions after the Biblical "three score years and ten" had been attained. Paradoxically, many persons are physical derelicts at a much earlier age. Chronological age cannot separate the old from the young.

Social planners have conceived the idea of solving all problems of the "elders" by legislation in the form of compulsory health insurance. While the aged do have problems, only a minor portion are in the health field. Older people not only have longer but they live healthier lives as well. Good health is far more than the absence of disease and infirmity. It involves the positive state of physical, mental and social well-being. Loneliness, rejection and lack of useful activities must not be permitted.

Health insurance, on a voluntary basis, is available to this group through Blue Shield at a lower rate, thus assuring health care in home surroundings.

Responsibility for this group is not a federal, but a community project and must be assumed by family, friends, church, clubs—that complex group we call Society.

A Merry Christmas and a Happy, Healthy New Year to each of you!

THE HOUSE OF DELEGATES COMES THROUGH

(Continued from Page 2035)

signment to be signed by the patient or subscriber when payment is to be made to a non-participant.

RESOLVED: That the Statement of Principles of Pre-Payment Medical Care Insurance as approved by the House of Delegates in September, 1957 be referred for review and revision to the special committee of the House of Delegates of the Michigan State Medical Society to be appointed to cooperate with the National Blue Shield Commission. The Committee shall report back to the House of Delegates at its next meeting.

This group of resolutions is a guarantee to our members, to our subscribers, our patients and to the general public that the Michigan State Medical Society and Michigan Medical Service will carry out faithfully the obligations and services provided by the contracts which have two years yet to run. The new contracts issued under the M-75 program are proving financially adequate and are again building up some reserve. The old contracts were losing money at an alarming rate because of increased utilization and liberalization. They had reached the point where change was imperative because benefits to subscribers were inadequate and a complete revision was necessary. Public demand and dissatisfaction among the doctors stimulated the new concept, M-75, which was put into effect by the House of Delegates in 1957. The old contracts are being converted into the new grouping as fast as practicable. These resolutions authorized a continuance of change-over.

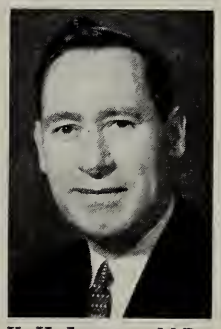
RELATIVE VALUE STUDY

In 1957, the House of Delegates authorized a study and development of a relative value scale in Michigan to replace the one borrowed from California. A committee of the Michigan State Medical Society is hard at work and is about to, or already has, sent questionnaires and information to each member of the Michigan State Medical Society asking for information as to the amounts being charged for the various services which the members are rendering their people. This information will be tabulated and studied. A determination will be made not of a fee schedule, but a relative value scale based on the charges being made by the individual doctor, for the hundreds of thousands of services they are rendering their patients.

Considerable apprehension has been expressed in various areas that the relative value scale would be changed into a fixed charge program for all medical services. This particular committee's duty and function is to establish the relative value between various services, not to fix charges.

Any doctor may use the RVS as a guide to determine his fee for a particular service. By considering the locality, economic conditions, cost of living, even dollar depreciation, he may set up a multiplier which can be applied to the relative value scale to determine—not a fixed—but a minimal fee.

KENNETH H. JOHNSON, M.D., PRESIDENT-ELECT



K. H. JOHNSON, M.D.

The House of Delegates of the Michigan State Medical Society at the Annual Session in Grand Rapids, elected Kenneth H. Johnson, M.D., Lansing, President-Elect. We have asked him for material to make the customary announcement of his election including education, practice and other accomplishments, but his modesty compels us to use other sources such as the Ingham County Medical Society. On another page (2050), we are reprinting from *Medical News* an article some of our members may have seen, which gives an acceptable summary of the solution of problems that could have been disrupting but which, largely due to Ken Johnson's keen direction, were solved.

Kenneth Johnson has been Speaker of the House of Delegates since 1957, and Vice Speaker for three years previous to that.

Following graduation from Lansing Central High School in 1926, he took his pre-medical training at Michigan State University from 1926 to 1928. He received his medical degree from the University of Michigan Medical School in 1932 and returned to his home town for internship and residency training at Edward W. Sparrow Hospital between 1932 and 1934.

Doctor Johnson began practicing in Lansing in association with O. M. Randall, M.D. Later, he became associated with his life-long friend, Kenneth Hodges, M.D., from 1935 until Doctor Hodges' untimely death in 1951. Since then, he has conducted a general practice with offices at 1116 Michigan National Tower.

He was President of the Ingham County Medical Society in 1953 and Secretary of that Society

from 1946 to 1949. Currently, he is Chairman of the Ingham County Medical Society Study Committee for Medical Education and is a member of the Preventive Medicine and Public Health Committee and the Public Relations Committee. Doctor Johnson has been a member of the County Society for the past twenty-five years.

He is on the staff of Sparrow and St. Lawrence Hospitals and was Secretary of the Sparrow Hospital staff from 1938 to 1940. In 1951 he served as Vice Chief of Staff at Sparrow Hospital.

Doctor Johnson's present Michigan State Medical Society activities include membership on the New Headquarters Building Committee, the Legislative Committee and the Committee on the Study of Insurance Programs for MSMS Members. He has also been a member of the State Society Public Relations Committee and the Committee on Education in Schools and Universities.

During World War II, he served overseas in Australia and New Guinea with the United States Air Force.

Kenneth Johnson will be the first President of the Michigan State Medical Society from Lansing since 1891.

WHICH PATH TO MEDICAL SECURITY?

It is now twenty years since the medical profession gave birth to prepaid medical care, but its ultimate patterns of operation and control are yet to be determined.

While most of us recognize that the public will make the eventual decision, nevertheless we doctors have it within our power—if we will—mightily to influence that decision. For the simple fact is that, in the long run, the people—our patients—will support that system of medical care prepayment which offers them the best assurance of satisfactory professional service through physicians and institutions of their own choosing.

Today, several contrasting programs of medical prepayment are competing for popular and professional favor—each embodying a distinct concept of the relationship between patient and doctor.

One such program is the limited cash reimbursement program of the insurance industry, which offers the insured certain dollar indemnities against certain medical contingencies, irrespective of the physician's charges for the service required.

Another major program is medicine's Blue Shield Plan, which seeks—through professionally negotiated schedules of payment and, in most areas, through the agreement of participating physicians—to assure the patient of fully paid professional services.

A third program is the "closed panel" of physicians. Operating frequently under labor or other lay auspices, this plan undertakes to provide a comprehensive service through a selected group of physicians remunerated by salary or per capita allowances, regardless of the volume of service required of them.

Which of these programs most faithfully reflects the traditional pattern of American medical practice? Which program is most clearly motivated—as medicine itself is motivated—to render service to the patient and to meet the needs of all segments of the community? Which program returns the fullest value to the patient and most fairly compensates the doctor? Which program best utilizes and protects the modes and ideals of practice that have earned American medicine the envy of other lands?

Which program will the American doctor favor—in the common interest of medicine and the people?

SYMBOLS ON SEPTEMBER COVER

We have had many inquiries about the meaning of the symbols on the cover of the September issue of The Journal which was devoted to Geriatrics.

Among primitive and medieval symbols, none is more rich in meaning and design than those of the early chemists and astronomers. Developed by the even earlier alchemists and astrologers, these signs provide a graphic history of the development of written communication.

September's cover used the lesser known but equally apt symbols of the four seasons, illustrating the waxing and waning of life.

MISREPRESENTATION

We were consulted recently by the widow of a very prominent doctor asking about insurance problems. She had been told she could not get Blue Cross and Blue Shield. She had subscribed with a well-known Health and Accident Company, had some surgery and had received a rider from the company limiting her policy. She had conferred with two other companies and wished ad-

vice on what to do, since she had been told by agents she could not get Blue Cross-Blue Shield except in a group because she was over sixty-five. We reminded her that publicity about the "over sixty-five policies" had been on radio and television for weeks. She knew about this, but was told that that was only for groups. It is unfortunate that some insurance agents misrepresent so effectively the Blue Cross-Blue Shield programs.

NEW REGISTRATION LAW CONTROLS PSYCHOLOGISTS

Climaxing four years of joint study between the Michigan psychiatrists and psychologists, a law was enacted this year setting up certification of the latter by the office of the Superintendent of Public Instruction.

Significant victory for the psychiatrists in the bill as finally passed, is inclusion of an exact definition of both the practitioner of and the practice of psychology, as well as inclusion of a specific prohibition of the practice of medicine and psychotherapy by those certified under the new act.

Bills introduced in previous years, and in fact this year's measure in its original form, have been opposed by the Michigan Society of Neurology and Psychiatry, which opposed establishment of a new autonomous board and further objected to the vagueness of the language in respect to defining the practice of psychology.

These were corrected in the bill as passed.

NINETEEN FIFTY-NINE

This is the last number of THE JOURNAL of the Michigan State Medical Society for the year 1959. It is total serial number 688. This year we have published the twelve regular issues, and two special sections, one containing the minutes of the 1958 Annual Session, in a compact readily usable bound form, and the other the Annual Directory. As in the past several years, each number has been devoted to some recognized function or interest of the Society. Several numbers have attracted special notice and compliments: the Beaumont number (May), Child Health (August), Geriatrics (September), and National Defense (October).

With this issue, we bid good-bye to 1959 and look forward to what next year will accomplish. We wish our membership and our readers a most happy holiday season, and the anticipation of ever more accomplishments in the new year.

"Tomorrow's Medicine Today"

That's the theme for the 1960 Michigan Clinical Institute, Detroit, March 8-11, 1960. Plan now to attend and receive much information of practical value in daily practice.

Plan Congress of the Professions, January

Michigan doctors will meet with members of other professions to take part in the first Congress of the Professions, January 22 and 23, 1960, in Detroit.

Dr. George W. Slagle, past president, MSMS, will be general chairman of the Congress. Honorary chairmen will include MSMS President Milton A. Darling and the presidents of the Michigan Society of Architects, Michigan State Dental Association, Michigan Society of Professional Engineers, and the State Bar of Michigan.

Representatives of the national professional societies involved will attend to speak before the Congress. In each instance, these groups are sending their president, president-elect or immediate past president. Nationally known speakers will highlight the programs. Governor G. Mennen Williams and Chief Justice John R. Dethmers will take prominent parts in the Congress.

In hearings which will be held the day prior to the actual Congress, deans of the various professional schools will testify, together with leaders in professional fields and lay persons with special knowledge in fields related to the professions.

The Congress, first meeting of its kind in the nation, is the annual meeting of the Michigan Association of the Professions—or MAP as it is commonly known. Incorporated December 1, 1958, MAP has enrolled more than 2,000 charter members during its initial year. All charter members are eligible to participate in the Congress, and it is anticipated that more than 500 will do so.

Charter membership roles will remain open until December 31. Those engaged in the practice of medicine, dentistry, engineering, architecture and law are eligible for charter membership, providing they are first members in good standing in their individual professional state societies.

All events of the Congress will be held in the Sheraton-Cadillac Hotel.

What They Said About
THE 1959 ANNUAL SESSION

AARON B. LERNER, M.D., Yale University School of Medicine (guest essayist): "I want to thank you for the invitation to speak before your medical society. It gave me a chance to see many old friends."

HOWARD P. ROME, M.D., Mayo Clinic (guest essayist): "May I say how much I enjoyed the opportunity to participate in the 1959 Annual Session. The hospitality of the Section on Nervous and Mental Diseases, the Michigan Neurological and Psychiatric Association, the Michigan District Branch of the American Psychiatric Association, and Doctor Ralph Fitts as my ubiquitous host, helped to make a delightful as well as a profitable experience for me."

HARVEY BLANK, M.D., University of Miami School of Medicine (guest essayist): "It was a great pleasure and an honor to participate in your program. I enjoyed very much meeting with the Michigan group."

ROBERT L. FAULKNER, M.D., Cleveland (guest essayist): "It was a pleasure to appear on your program."

R. A. LITTLE, Jackson (Secretary of Michigan Society of Professional Engineers): "Attending the MSMS annual session was certainly a gratifying and enlightening experience. I want to thank you for giving me the opportunity to meet and become acquainted with so many of your officers and delegates."

JAMES A. FERGUSON, M.D., and **WILLIAM FULLER, M.D.,** Grand Rapids: "We had the great pleasure of entertaining six medical students from the University of Michigan and six from the University of Wayne Medical School during the Annual Session on behalf of the Michigan State Medical Society. Thank you for a very pleasant experience."

H. CLOSE HESSELTINE, M.D., president-elect, Illinois State Medical Society, and Mrs. Hesseltine: "We wish to express our sincere thanks for your most cordial hospitality during the Annual Session at Grand Rapids."

JOSEPH T. O'NEILL, M.D., Ottawa, Illinois (President, Illinois State Medical Society): "I wish to thank the officers and members of the Michigan State Medical Society for the extreme courtesy and consideration which you showed both Mrs. O'Neill and me at Grand Rapids. My hope is that we will be able to extend to you folks the same courtesy when you visit our annual meeting in May—we shall try very hard to match you."

CYRIL B. COURVILLE, M.D., Institute of Nervous Diseases, Los Angeles (guest essayist): "If my small contributions to the Annual Session program were of any value to those present it will make me happy to have made the visit. I must say that I had a very enjoyable time and cannot imagine what more pleasure could have been furnished so graciously during the course of my stay by my assigned hosts."



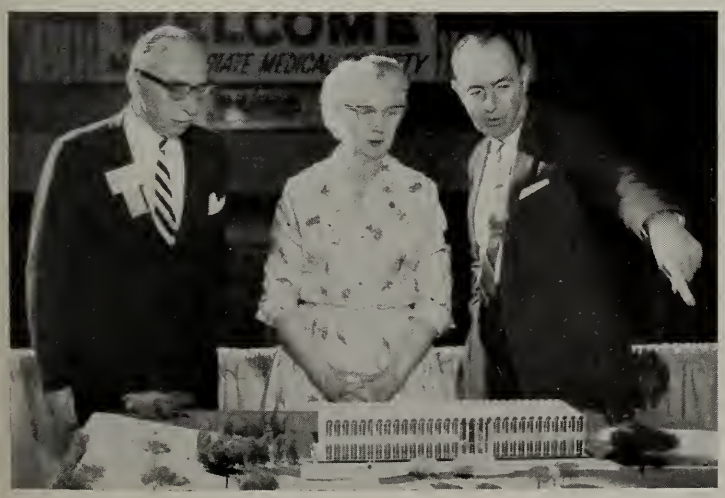
AT RIGHT: Doctor Saltonstall is unable to suppress his enjoyment of the droll remarks made by newly-installed MSMS President Milton A. Darling, M.D., at the presidential induction ceremony during the Officers Night Dinner Dance.

HIGHLIGHTS of Annual Session

A total of 3,085 registrants crowded the meeting rooms and exhibit halls during the 1959 Annual Session at the Pantlind Hotel in Grand Rapids. This was a near-record attendance for those sessions held in the Furniture City.

Of the 1,516 doctors of medicine present, thirty-five were from out-of-state including two from California and three from Florida.

The general practitioners led the list of M.D. registrants with a total of 441, followed by the surgeons with 189 and internists with a total of 114. Interns and residents numbered 124.



STATISTICS

M. D. registration according to special group was:

46—Anesthesiology
37—Dermatology-Syphilology
21—Gastroenterology-Proctology
441—General Practice
114—Medicine
54—Nervous & Mental Diseases
96—Obstetrics & Gynecology
53—Ophthalmology-Otolaryngology
55—Pathology
57—Pediatrics
33—Public Health
49—Radiology
189—Surgery
24—Urology
21—Occupational Health
71—Specialty not listed
124—Interns and Residents

Cities with the highest M.D. representation are:

329—Grand Rapids
226—Detroit
83—Flint
75—Lansing
65—Kalamazoo
54—Muskegon

AT LEFT: Wm. A. Hyland, M.D., Grand Rapids; Auxiliary President Mrs. Robert Reagan, Benton Harbor; and G. B. Saltonstall, M.D., Charlevoix, look over the model of the new MSMS headquarters which was displayed in the Pantlind Hotel lobby.



ABOVE: Eleven past presidents of MSMS gathered for their annual luncheon during the Annual Session. Standing (l. to r.) are H. R. Carstens, M.D., Birmingham; W. S: Jones, M.D., Menominee; O. O. Beck, M.D., Birmingham; R. J. Hubbell, M.D., Traverse City; G. B. Saltonstall, M.D., Charlevoix; and G. W. Slagle, M.D., Battle Creek. Seated are W. A. Hyland, M.D., Grand Rapids; Wilfrid Haughey, M.D., Battle Creek; C. E. Umphrey, M.D., Detroit; Arch Walls, M.D., Detroit; and L. J. Hirschman, M.D., Traverse City.



ABOVE: Optimist Club speaker was James D. Fryfogle, M.D., of Detroit. He addressed the members on the advances in heart surgery. Harry Lieffers, M.D., of Grand Rapids, served as host to Dr. Fryfogle.



ABOVE: W. M. LeFevre, M.D., Muskegon, who spoke to the Grand Rapids Kiwanis Club, was introduced by Rev. Charles Scheid.

Doctors were in the news during the Annual Session. Greater than usual interest in the activities of the MSMS Annual Session was displayed by the Michigan press, radio and TV.

During the House of Delegates meeting, reporters did a comprehensive job of accurately covering the session, thanks to the efforts of the House of Delegates Press Committee. The members appeared on TV newscasts and discussed House actions in press conferences immediately following each day's meeting. Committee members were K. H. Johnson, M.D., Lansing, chairman; J. J. Lightbody, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; D. W. Thorup, M.D., Benton Harbor; and D. Bruce Wiley, M.D., Utica.

Because the House of Delegates went into extra session, the Public Relations staff operated two Press Rooms simultaneously, one in the Pantlind Hotel for House activities and one in the Civic Auditorium near the scientific meetings.

Howard G. Benjamin, M.D., of Grand Rapids, was the Scientific Press Committee chairman. He devoted nearly a full four days to press room tasks, sharing duties with other veteran committee members: F. S. Alfenito, Jr., M.D., and N. L. Avery, M.D., both of Grand Rapids; A. B. Gwinn, M.D., Hastings; P. W. Kniskern, M.D., of Grand Rapids; and C. L. Weston, M.D., of Owosso.

BELOW: The past, present and future presidents of the Michigan State Medical Assistants Society posed for an informal portrait following the Annual Banquet of the Society. Left to right are 1959-60 president Mrs. Reta Stahl, Albion; president-elect Mrs. Betty Lou Willey, Port Huron; and retiring president, Miss Donna Hislop, Muskegon





ABOVE: Humorist Carl C. Byers, of New York, regaled the guests at the Officers Night Dinner Dance. Reflecting the audience's pleasure are Dr. and Mrs. Saltonstall.



ABOVE: Daily TV interviews were arranged by the press committee and PR staff over WOOD-TV. Shown during an interview is MSMS president G. B. Saltonstall, M.D., Charlevoix, being questioned by C. Allen Payne, M.D., Grand Rapids, member of the press committee.

AT RIGHT: The House of Delegates formally recognized 23 long-time practitioners and presented each with a Fifty Year Pin. Pictured here standing left to right are: C. S. Clarke, M.D., Jackson; E. V. Joinville, M.D., Detroit; R. W. Ridge, M.D., Wyandotte; Walter L. Finton, M.D., Jackson; and J. T. Sample, M.D., Saginaw. Seated are: J. S. Lambie, M.D., Birmingham; Emma L. W. Sheppard, M.D., Fenton; and Ferdinand Cox, M.D., of Jackson. Not shown are Carleton Harkness, M.D., Owosso, whose award was presented posthumously; Raymond C. Andries, M.D., Grosse Pointe; Samuel A. Butler, M.D., Pontiac; Henry Cook, M.D., Flint; Edward Dowdle, M.D., Detroit; Heman E. Grant, M.D., Lewiston; Frank A. Grawn, M.D., Ypsilanti; R. W. Hodges, M.D., Mackinaw City; John D. McKinnon, M.D., Highland Park; Plinn F. Morse, M.D., Detroit; Charles A. Neafie, M.D., Pontiac; Edward J. O'Brien, M.D., Detroit (died in October, 1959); Perry C. Robertson, M.D., Ionia; Alexander M. Stirling, M.D., Detroit; and Charles L. Washburne, M.D., Ann Arbor.





Members of The Council, 1959-60

Seated (left to right): Kenneth H. Johnson, M.D., Lansing; Milton A. Darling, M.D., Detroit; Arthur E. Schiller, M.D., Detroit; T. P. Wickliffe, M.D., Calumet; D. Bruce Wiley, M.D., Utica; William A. Hyland, M.D., Grand Rapids.

Middle Row (left to right): James J. Lightbody, M.D., Detroit; Wilfrid Haughey, M.D., Battle Creek; Gilbert B. Saltonstall, M.D., Charlevoix; C. N. Hoyt, M.D., Port Huron; Warren W. Babcock, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; Oliver B. McGillicuddy, M.D., Lansing; B. T. Montgomery, M.D., Sault Ste. Marie; William M. LeFevre, M.D., Muskegon.

Top Row (left to right): Robert J. Mason, M.D., Birmingham; Orlen J. Johnson, M.D., Bay City; G. Thomas McKean, M.D., Detroit; E. S. Oldham, M.D., Breckenridge; H. J. Meier, M.D., Coldwater; William Bromme, M.D., Detroit; Harold H. Hiscock, M.D., Flint; Bradley M. Harris, M.D., Ypsilanti.

Absent on Society Business: H. F. Falls, M.D., Ann Arbor; D. G. Pike, M.D.; Traverse City; W. A. Scott, M.D., Kalamazoo.

Annual Session Highlights

Eighty-seven items were presented to and discussed by the twenty-five members of The Council (eighteen Councilors, and the elected officers) at the two meetings held immediately before and during the MSMS Annual Session. The first meeting was held in East Lansing prior to the cornerstone laying of the new MSMS building; the second meeting was held the Friday morning of the Annual Session in Grand Rapids. The following matters and certain problems facing the medical profession of Michigan were discussed:

- **Reorganization of The Council:** A. E. Schiller, M.D., Detroit, was re-elected as Chairman.

  T. P. Wickliffe, M.D., Calumet, was re-elected as Vice Chairman.

  W. M. LeFevre, M.D., Muskegon, was selected to succeed himself as Chairman of the County Societies Committee.

  B. M. Harris, M.D., Ypsilanti, again was chosen for the post of Chairman of the Publication Committee.

  O. B. McGillicuddy, M.D., Lansing, was selected as head of the Finance Committee.

  The monthly financial reports were studied and approved as well as bills payable which were ordered paid.

- **New MSMS Headquarters Building.** Progress reports were presented by W. S. Jones, M.D., of Menominee, Chairman of the Big Look Committee, and by K. H. Johnson, M.D., Lansing, Speaker of the House of Delegates: The basic concrete structure is finished, except for minor items such as stairs. The shoring is being left in to get design strength (takes from seven to twenty-eight days). The site work including the driveway in front of the building is finished and the grading is almost completed. Next on schedule is the erection of the pre-cast columns and thirty-two vaults (roof).

  Plan of furnishings will be presented by M. Yamasaki & Associates to the Committee on Big Look on October 18. Also presented was a report on progress of the sale of the MSMS property at 606 Townsend Street.

Financing of the new building was discussed by Treasurer W. A. Hyland, M.D., who, upon request of The Council, had established a line of credit with a Michigan banking institution to obtain necessary money at a very favorable rate of interest, so that the building could be paid for upon completion, with the loan liquidated from future dues allocated for this purpose; the treasurer recommended that securities to cover the immediate cost of the new building be cashed. The report was approved. Actual payments to contractors, architect, etc., to September 27 have totaled $100,543.46. A report along similar lines is to be presented by Doctor Jones to the House of Delegates.

Suggestions for inscription on plaque and donor tablets were presented by W. W. Babcock, M.D., and Wm. Bromme, M.D.

- **Councilor Conferences.** Reports from individual Councilors on their Councilor Conferences held during the past summer were received with appreciation.
- **The question of establishing an editorial board** was discussed and referred to the Publication Committee of The Council for report.
- **Appointments:** Robert E. Anderson, M.D., Flint, to Public Relations Committee; Auther C. Rutzen, M.D., Detroit, to Maternal Health Committee; A. C. Curtis, M.D., Ann Arbor, as Chairman of Venereal Disease Control Committee; Wm. Bromme, M.D., and C. I. Owen, M.D., both of Detroit and A. A. Humphrey, M.D., Battle Creek, nominated for Medical Advisory Committee to Selective Service; A. Hazen Price, M.D., Detroit, and F. C. Swartz, M.D., Lansing, as MSMS representatives to Advisory Committee to State Commission on Aging; M. L. Lichter, M.D., Melvindale, to cover November AMA Civil Defense Conference in Chicago.
- **Use of Wayne County General Hospital (Eloise) Clinical Material:** report on September 6 meeting to achieve this desired result was presented by Milton A. Darling, M.D., President; a plan will be worked out so that both medical schools can use this facility for teaching purposes.
- **Nominations for the State Board of Registration in Medicine** to fill vacancies, occurring as of September 30, 1959 were submitted to the Michigan Secretary of State, with copy to the Governor in accordance with Michigan Law.
- **The dates for the 1964, and 1965** (Centennial) **Annual Sessions** in Detroit were selected by The Council.
- **National Blue Shield Plans Commission representatives,** Donald H. Stubbs, M.D., Washington, D. C., President, Russell C. Carson, M.D., Ft. Lauderdale, a member, and John W. Castelluci, Chicago, Secretary, were present upon invitation to discuss various questions concerning Michigan Medical Service and Blue Shield plans in general.
- **Report from Harry A. Towsley, M.D.,** Ann Arbor, on Hospital Survey and Construction meeting of August 6, 1959, was presented and discussed. Action of The Council was "that on questions of hospital construction, the recommendations of the Joint Committee on Accreditation be endorsed."
- **The Governor was congratulated** on his reappointment of A. E. Heustis, M.D., as Michigan's Health Commissioner, and a letter expressing this commendation was authorized.
- **A letter from the AMA Council on Medical Service** commending F. C. Swartz, M.D., Lansing, for his splendid work in connection with care of the aging, was read, and the congratulations of MSMS to Doctor Swartz were added in the motion of approval.
- **A. A. Claytor, M.D.,** Saginaw, Michigan's Foremost Family Physician for 1959, was nominated to the American Medical Association for its general practitioner award.
- **Thanks were extended** to all who participated in making successful the 1959 MSMS Annual Session in Grand Rapids, and to all those who assisted at the MSMS exhibits at the State fair and county fairs throughout Michigan.
- **Committee reports included:** (1) Relative Value Study Committee, meeting of August 6, including additional appropriation, which report as presented by Chairman Luther R. Leader, M.D., Detroit, was approved by The Council; (2) Public Relations Committee, meeting of August 27; (3) Committee on Alcoholism, September 9; (4) Wayne District CDMCIC Committee, August 20; (5) CDMCI Committee, Eleventh District, May 28; (6) CDMCI Committee, Tenth District, May 13; (7) Michigan Cancer Coordinating Committee, September 24; (8) North Central District Bank Clearing House, June 12.

  Two other committee reports were presented: (1) Special report of Bureau of Hospital Administration, University of Michigan, by Director W. J. McNerney, Ann Arbor, which report was referred to the MSMS Relative Value Study Committee; (2) Special Committee on Furnishing New Building which was referred to the Big Look Committee.

- **Council Meetings** during the ensuing twelve months, The Council decided, will be held monthly, with 50 per cent of The Council to be a quorum; if no quorum of The Council is present, a quorum of the Executive Committee of The Council will constitute a quorum for these monthly meetings. Referred to Legal Counsel was request that he clarify MSMS Bylaws, Chapter 10, Section 1 re time of electing officers of The Council, for reference to the House of Delegates Committee on Constitution and Bylaws as The Council's recommendation.
- **New members of The Council** introduced at the October 2 meeting were: Harold F. Falls, M.D., Ann Arbor, Vice Speaker of the House of Delegates; Robert J. Mason, M.D., Birmingham, Councilor of the Fifteenth District; and Wm. A. Scott, M.D., Kalamazoo, Councilor of the Fourth District.
- **The Council took official recognition** of the work of the retiring officers and Councilors and placed upon its minutes a vote of thanks for their contributions to MSMS and to Medicine generally.
- **The time for the second meeting** of the September Session of The Council in future was changed from Friday morning to Thursday morning.
- **A committee of The Council was appointed** to work with Public Relations Counsel to make recommendations on methods of installing MSMS officers, in future.



Daytime TV looked in on an expert discussion of problems of adolescent and teenage children during the Annual Session. In co-operation with WOOD-TV, a half-hour program was presented on Thursday morning. Seated right is Press Committee chairman Howard G. Benjamin, M.D., Grand Rapids. Seated from left to right are J. G. Young, M.D., of Dallas; J. A. Rose, M.D., of Philadelphia; and H. P. Rome, M.D., of Rochester, Minnesota. The medical authorities appeared on the Thursday Annual Session scientific program. Standing are the moderators of the TV program.

Obstetrical BREVETS



Third Trimester Hemorrhage

Of the 632 maternal deaths in the state of Michigan during the years 1950-1954, 443 were due to obstetric causes. Of the *443* women, *twenty-six* died from hemorrhage in the third trimester.

There are many conditions which are responsible for hemorrhage during this period of gestation, but in this five-year period only two were severe enough to cause death. These are placenta previa and abruptio placenta.

The reasons for these deaths were not mysterious or vague, but as you will see, reactiveness to known facts either by the physician in charge of the patient, the patient herself, the hospital in which she was placed or a combination of these factors.

Of the *twenty-six* cases there were *two* which have been classified as unpreventable. Both of these cases were deaths due to abruptio placenta, one of which was complicated by a severe toxemia and the other by uncontrollable afibrinogenemia following Caeserean section.

Thus there were *ten* cases of placenta previa and *fourteen* cases of abruptio placenta whose tragic end might have been avoided. The Michigan State Maternal Mortality Evaluation Committees, after a careful and thorough review of each individual case, has assigned as the cause of death in the cases of *placenta previa* the following:

1. The patient was moribund on admission to the hospital where she arrived without notification of her physician
2. The injudicious use of pituitrin, forcible dilatation of the cervix, version and extraction and failure to replace lost blood or call a consultant
3. Nine hours of profuse bleeding with an undilated cervix followed by a version and extraction
4. No prenatal care and no blood available
5. Bleeding between two and three weeks prior to hospitalization, inadequate prenatal care and hospital facilities
6. Version and extraction through a partially dilated cervix
7. Home delivery, under-estimation of blood loss and inadequate blood replacement following hospitalization
8. Version and extraction (uterus not explored following delivery)
9. Inadequate blood replacement
10. No prenatal care and inadequate blood replacement

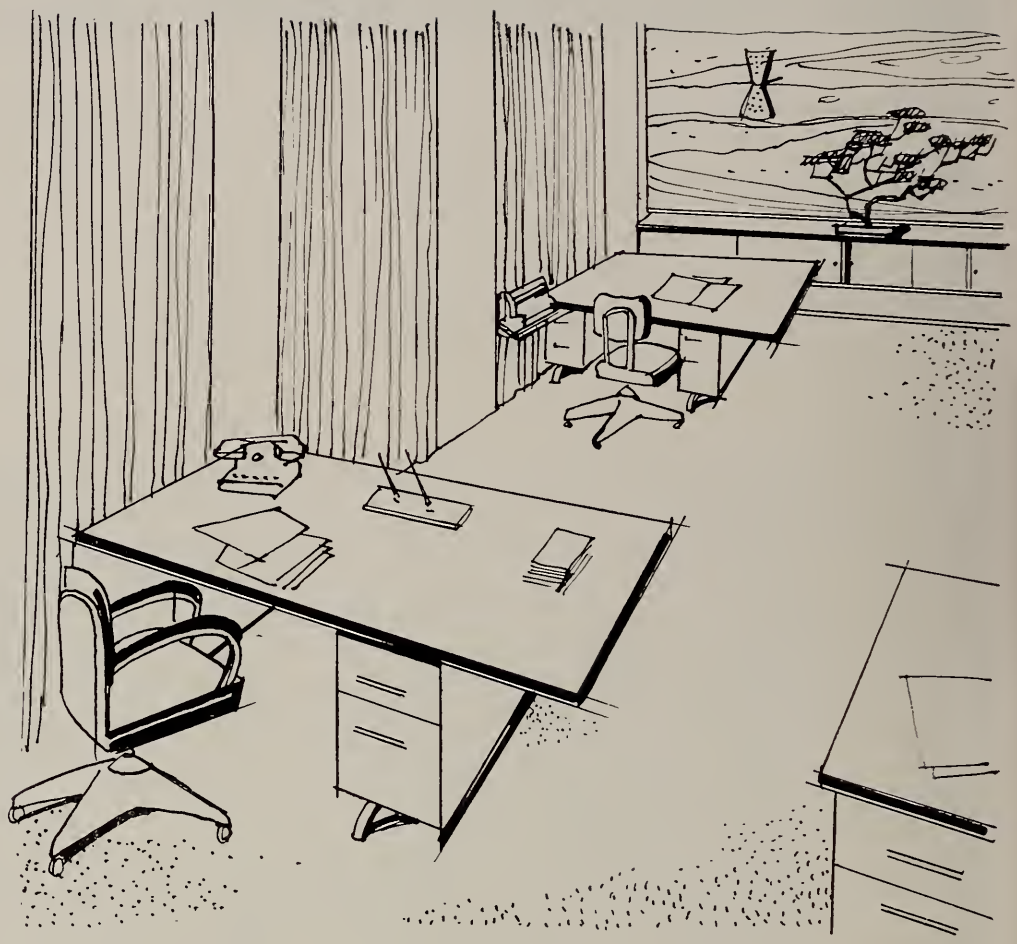
In the *abruptio placenta* cases, the following causes are listed:

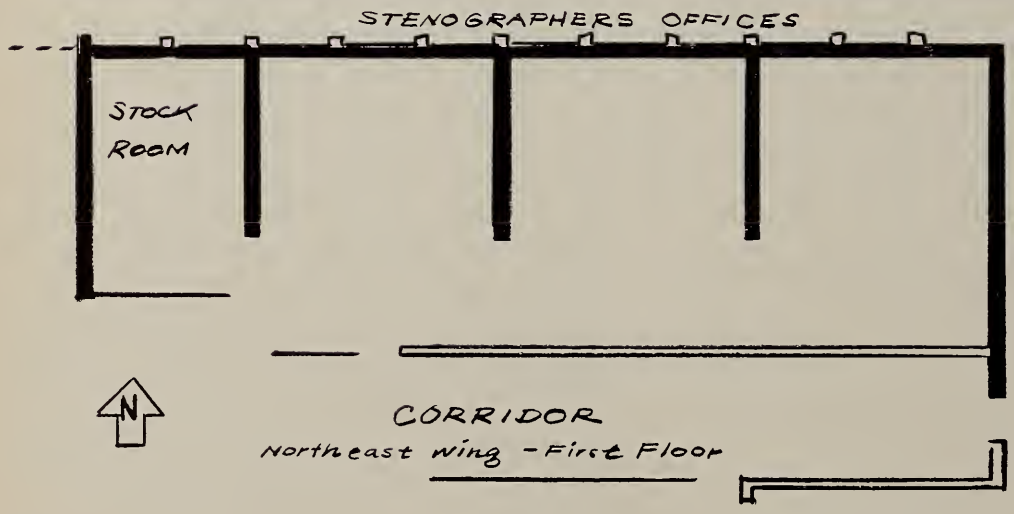
1. Manual dilatation of the cervix when 6 to 7 cm. dilated, three attempts at a high forceps delivery followed by a version and extraction
2. No prenatal care—D.O.A.
3. Delay in performing Cesarean section
4. Inadequate blood replacement following a forceps delivery on a toxic, anemic patient who had omitted prenatal care for three months
5. Inadequate blood replacement following a Cesarean section (complicated by toxemia)
6. Abruptio placenta discovered at autopsy on a patient dying of toxemia during home management
7. Inadequate blood replacement following Cesarean section
8. No prenatal care, blood started after collapse following Cesarean section with a known hemoglobin of 44 per cent
9. No prenatal care, shock occurred during admission examination
10. Admitted in shock and treated with pitocin and Trendelenburg position for eighteen hours before blood was started
11. Excessive hydration and pulmonary edema following Cesarean section
12. Blood too little too late following I.V. pitocin and forceps delivery
13. Ill-advised use of pitocin followed by Cesarean section and afibrinogenemia
14. Ill-advised use of pitocin followed by Durrhsians incision and a mid forceps delivery

There have been statements recorded by well-known authorities that we are reaching or have reached an irreducible minimum as far as maternal mortality is concerned. Do you agree?

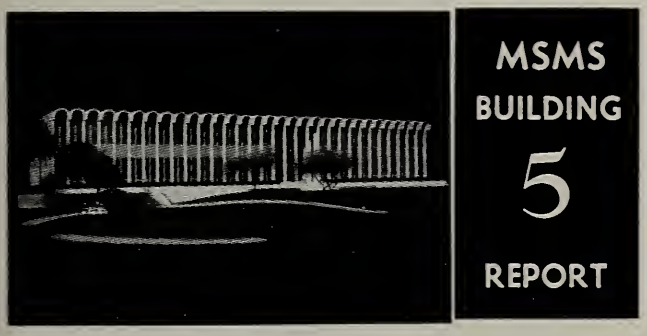
In conclusion, we would like to say that we are proud for many reasons of belonging to the medical profession as it exists in Michigan today. Foremost of these reasons being that our profession stands alone from all other groups and professions by willingly *asking* its members to review and constructively criticize the actions of its individual members and the profession as a whole.

looking AHEAD . . .





MSMS Stenographer —Hidden Purveyor



Another Monthly Building Report by the MSMS Committee on Big Look

The oft-forgotten person in any office or organization is the secretary or stenographer. To her falls the task of transforming instruction into action. This is not to detract from the employer who makes the decisions, but a general does need some soldiers.

In the Michigan State Medical Society, the soldiers are a dedicated staff of office workers who work behind the scenes, armed with pen and typewriter.

It's probably no news to you, but a usual MSMS committee meeting requires about 20-man hours of staff work between the initial planning and the final mimeographing of minutes. Of course, the scientific meeting such as the Annual Session entails more like 5,000 man-hours of labor.

This brief introduction leads up this month to a brief preview of the secretarial area in the new MSMS headquarters.

On the opposite page is a reproduction of the floor plan of the northeast quarter of the new building. There several stenographers will perform the daily tasks necessary in the operation of the 6,700-member Michigan State Medical Society.

The new work areas are designed for maximum efficiency and partitions will protect the girls from distractions of the adjoining area. The noise level will be held to a minimum through use of sound-absorbing floor covering.

Dangerous extension and telephone cords will not be lying about, since the location of each desk has been planned in advance with floor plugs for phone and typewriter planted in the floor directly beneath each space.

When needed, the area will be able to accommodate up to twelve stenographers with similar efficiency.

Equipment for the new room—desks, chairs, files and typewriters—will be transferred from 606 Townsend.

The new stenographic room will feature other improvements as it continues to serve as a vital workshop of MSMS.

Michigan MD Split Averted By Shield Plan Agreement

An open and bitter split among Michigan physicians over a Blue Shield plan regarded by many as "too liberal" was averted here by a compromise worked out at the annual meeting of the Michigan State Medical Society.

The accord was reached by reducing the income ceiling for service coverage under Michigan Medical Service's M-75 policies from $7,500 to $6,500, and using as a yardstick for such policies the total family income, rather than individual subscriber income. The new provisos are to go into effect "as soon as feasible."

Before the agreement was worked out, the division among Michigan doctors shaped up largely as Wayne County (Detroit) against the rest of the state. Before the meeting began, Wayne County delegates were pledged to work for a $5,000 service-policy limit. In fact they had, for the most part, been elected over a slate of former delegates because of their support of an anti-M-75 platform.

Heated Debate

The compromise came after heated debate in caucus, in reference committee and on the floor of the House of Delegates. All factions gave major credit for the settlement to two men: Dr. Donald N. Sweeny of Detroit, who brought together the warring parties in reference committee, and Dr. Kenneth H. Johnson of Lansing. Dr. Johnson, Speaker of the House and President-elect of the State Society, guided the measure through the House's special session.

Looming large in the background of the debate here was Michigan's labor giant, the United Auto Workers. The union is generally credited with having "inspired" formulation of the M-75 policy two years ago by threatening to emulate the United Mine Workers and set up its own "medical business" unless the Blue plans made major concessions.

Both sides left the parleys feeling they could claim victory—opponents of M-75 because service-policy ceilings were revised downward; defenders because the cut was less drastic than had been demanded, and another controversial provision had been left largely intact.

Only Slightly Altered

This is the clause distinguishing between participating and nonparticipating physicians by permitting the latter to be paid directly only if their medical service reports are accompanied by assignment-of-payment statements from the patient or subscriber. Otherwise, payments are made to the subscriber. The House of Delegates voted to alter this provision only to the extent of having assignment forms printed right on the medical service reports.

Blue Shield's reaction to the decisions taken here was expressed by Dr. G. Thomas McKean of Detroit, president of Michigan Medical Service. His interpretation of "as soon as feasible," he said, was that his organization would be given the necessary time and latitude to revise its present program.

In the meantime, he added, M-75 contracts would continue to be sold and commitments under those contracts would be fully met. A major reason for continued sale of M-75s, observers noted, was the hope that this would stem the tide of losses for Michigan Blue Shield—almost $3 million last year.—*Medical News*, October 14, 1959.

THE DYNAMICS OF GERIATRICS

(Continued from Page 2025)

14. Kaplan, Jerome: Effect of group activity on psychogenic manifestations of older people. Geriatrics, 9:537-539 (Nov.) 1954.
15. Keys, Ancel: Aging and health of men in America. Geriatrics, 8:620-621 (Nov.) 1953.
16. Landau, Gertrude: Restoration of self-esteem. Geriatrics, 10:141-143 (March) 1955.
17. Laue, Helen G.: A community plans a recreation program for the aged. J. Gerontol., 8:86 (Jan.) 1953.
18. McIntire, Ross T.: American needs the older handicapped worker. J. Am. Geriatrics Soc., 2:203-209 (Apr.) 1954.
19. Pressy, S. L., et al: Church programs for older people in a mid-west city. Newsletter, Gerontol. Soc., 3:5 (June) 1956.
20. Ross, C. Howard: Geriatrics and the aging personality. J. Michigan M. Soc., 54:545-549 (May) 1955.
21. Ross, C. Howard: Geriatric exercise. J. Michigan M. Soc., 55:1222-1227 (Oct.) 1956.
22. Ross, C. Howard: Geriatric rehabilitation. J. Am. Geriatrics Soc., 5:271 (March) 1957.
23. Ross, C. Howard: Geriatric rehabilitation. J. Michigan M. Soc., 56:1000 (Aug.) 1957.
24. Ross, C. Howard, and Fox, Winslow G.: Revolutions in Medicine. Ann Arbor Publishers, 1957.
25. Rusk, H. A.: Total rehabilitation. J. Nat. M. A., 45:1, 1953.
26. Stieglitz, E. J., et al: Geriatric Medicine: Medical Care of Later Maturity. Philadelphia: J. B. Lippincott Co., 1954.
27. Stieglitz, E. J.: Constructive medicine in aging: A therapeutic objective. Geriatrics, 10:151, 1955.
28. Thewlis, Malford W.: Overtreatment in the aged. J. Am. Geriatrics Soc., 2:650-654 (Oct.) 1954.
29. Tibbits, Clark: Living through the older years. Proceedings, Charles A. Fisher Mem. Inst. on Aging. Ann Arbor: Univ. of Mich., 1949.
30. Tibbits, Clark: Social and economic aspects of old age. J. Am. Geriatrics Soc., 4:871 (Sept.) 1956.
31. Woughter, Harold W.: Plan for living in later years. J. Michigan M. Soc., 52:513 (May) 1953.

Michigan Clinical Institute

Refresher Course

Sheraton-Cadillac Hotel, Detroit

TUESDAY-WEDNESDAY-THURSDAY-FRIDAY, MARCH 8-9-10-11, 1960

R. J. Hubbell, M.D., Suttons Bay,
General Chairman

Every member of the Michigan State Medical Society is invited—urged—to attend the 1960 Michigan Clinical Institute. Once again, it will be held in Detroit at the Sheraton-Cadillac Hotel.

This excellent refresher course will begin Tuesday noon, March 8, and end Friday noon, March 11.

The total program has been planned to help the practicing physician in his daily work.

Information

- **THEME**—"Tomorrow's Medicine Today"
- **HEADQUARTERS**—Sheraton-Cadillac Hotel, Detroit; Assemblies and Exhibits on Fourth Floor; Press Room on Fifth Floor (Suite 500).
- **REGISTER**—Fourth Floor—as soon as you arrive.
  Hours: Tuesday, March 8—10:00 a.m. to 5:15 p.m.
  Wednesday, March 9—8:30 a.m. to 5:15 p.m.
  Thursday, March 10—8:00 a.m. to 5:15 p.m.
  Friday, March 11—8:30 a.m. to 1:00 p.m.
- **NO REGISTRATION FEE** for Members of MSMS and other State Medical Associations, AMA, and Canadian Medical Association.
- **ADMISSION BY BADGE ONLY** to all Assemblies and the Exhibition. Please present your MSMS or other State Medical Association, AMA, or CMA Membership Card to expedite registration.
- **GUESTS**—Members of any state medical association, AMA, or CMA members from any province of Canada, and physicians of the Army, Navy, and U. S. Public Health Service are invited to attend as guests. No registration fee. Please present credentials at the registration desk.

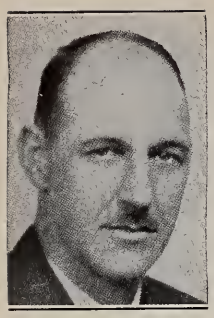
  Bona fide doctors of medicine who are associate or probationary members of Michigan county medical societies or who are serving as residents or interns, if vouched for by the president or secretary of the county medical society in whose jurisdiction they are located, will be registered as guests with no registration fee. Please present credentials at the registration desk.
- **MICHIGAN DOCTORS OF MEDICINE** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them toward dues in the Michigan State Medical Society for 1960 *only,* provided they subsequently are voted into membership by the county medical society in whose jurisdiction they practice.
- **TELEPHONE SERVICE**—Local and long distance telephone service will be available in the Sheraton-Cadillac Hotel, fourth floor. In case of emergency, physicians will be paged from the meetings by an announcement on the screen. Call the Sheraton-Cadillac Hotel, Detroit, WOodward 1-8000, and ask for the Michigan Clinical Institute extensions on the fourth floor.

(Continued on Page 2052)

COLOR TV PROGRAM

beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia.

Wednesday-Thursday-Friday, March 9-10-11, from 10:30 a.m. to 12:30 p.m. (See Pages 2056, 2058 and 2060, for complete program.)



R. J. Hubbell, M.D.

• **R. J. HUBBELL, M.D.**, Suttons Bay, is General Chairman of Arrangements for the 1960 Michigan Clinical Institute.

• **WM. S. REVENO, M.D.**, Detroit, is Chairman of the Program and Television Committees.



Wm. S. Reveno, M.D.

Information (Continued)

• **CHECKROOM** is available in the Sheraton-Cadillac Hotel, fourth floor, next to the Grand Ballroom.

• **GUEST SPEAKERS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Committee on Program. This request is made in order to avoid confusion as well as disappointment on the part of members of the audience.

• **PAPERS WILL BEGIN AND END ON TIME**—Nothing makes a scientific meeting more attractive than by-the-clock promptness and regularity; therefore, all meetings and symposia will open on time, all speakers will be required to begin their talks exactly on time and to close exactly on time, in accordance with the schedule in the program. All who attend the Institute are respectfully requested to assist in attaining this end by noting the schedule carefully and by being in attendance accordingly, in order not to miss that portion of the program of greatest interest.

• **TECHNICAL EXHIBITS**—Seventy-five interesting and instructive displays will open on Tuesday, March 8, at 1:00 p.m., and on Wednesday-Thursday-Friday, March 9-10-11, at 9:30 a.m. The exhibits will close daily at 5:15 p.m., except on Friday when the show closes at 1:00 p.m. Frequent intermissions to view the exhibits have been arranged daily before, during, and after the assemblies.

• **THERE IS SOMETHING** of interest or education in the large exhibit of technical displays. **SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN CLINICAL INSTITUTE.**

• **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Michigan Clinical Institute. Notify J. M. Sheldon, M.D., Chairman, MSMS Committee on Postgraduate Medical Education, 1313 E. Ann Street, Ann Arbor, Michigan.

• **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel is available at the DAC Garage, 1754 Randolph, the Grand Circus Garage, 1776 Randolph, and the Book Tower Garage, 333 State.

• **PRESS RELATIONS COMMITTEE** for the 1960 Michigan Clinical Institute: A. B. Gwinn, M.D., Hastings, Chairman; H. F. Dibble, M.D., Detroit; M. R. Weed, M.D., Detroit; C. L. Weston, M.D., Owosso.

• **INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE** will be found at the Michigan Clinical Institute. All subjects on the Institute Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

MUCH THAT IS NEW AND INTERESTING WILL BE FOUND IN THE MCI EXHIBIT

THE "BLOCK SYSTEM"
at the
1960 MICHIGAN CLINICAL INSTITUTE

Cancer Control—Tuesday afternoon,	March 8
General Practice Day—Surgery—Wednesday morning,	March 9
General Practice Day—Trauma—Wednesday afternoon,	March 9
Adolescents in Society—Wednesday evening,	March 9
Heart and Rheumatic Fever—Thursday morning,	March 10
Internal Medicine—Thursday afternoon,	March 10
Obstetrics-Gynecology—Friday morning,	March 11

COMMITTEE ON ARRANGEMENTS

Representing the Michigan State Medical Society

R. J. Hubbell, M.D., Suttons Bay, *General Chairman*
Milton A. Darling, M.D., Detroit, *President, MSMS*
G. B. Saltonstall, M.D., Charlevoix, *Immediate Past President, MSMS*
D. Bruce Wiley, M.D., Utica, *Secretary, MSMS*

Representing University of Michigan School of Medicine and University of Michigan Department of Postgraduate Medicine

C. G. Child, III, M.D., Ann Arbor
W. D. Robinson, M.D., Ann Arbor
J. M. Sheldon, M.D., Ann Arbor
R. W. Waggoner, M.D., Ann Arbor
H. A. Towsley, M.D., Ann Arbor

Representing Wayne County Medical Society and Wayne State University College of Medicine

R. R. Cooper, M.D., Detroit
H. M. Fuller, M.D., Detroit
J. T. Howell, M.D., Detroit
C. S. Stevenson, M.D., Grosse Ile

Representing Out-state Practitioners, Members of MSMS

H. G. Bacon, Jr., M.D., Scottville
R. V. Daugherty, M.D., Cadillac
S. A. Fiegel, M.D., Sturgis
L. F. Hayes, M.D., Gaylord
Paul Ivkovich, M.D., Reed City
J. R. Rodger, M.D., Bellaire
G. C. Wilson, M.D., Clinton

Representing Michigan Department of Health and Michigan Health Officers Association

C. P. Anderson, M.D., Detroit
A. E. Heustis, M.D., Lansing

Representing Michigan Foundation for Medical and Health Education

E. I. Carr, M.D., Lansing

Representing Michigan Heart Association

D. S. Smith, M.D., Pontiac

Representing American College of Surgeons, Regional Committee on Trauma

H. M. Smathers, M.D., Detroit

Representing Michigan Cancer Co-ordinating Committee

H. M. Nelson, M.D., Detroit

COMMITTEE ON PROGRAM

W. S. Reveno, M.D., Detroit, *Chairman*
E. I. Carr, M.D., Lansing
H. M. Fuller, M.D., Detroit
A. E. Heustis, M.D., Lansing
J. M. Sheldon, M.D., Ann Arbor
H. M. Smathers, M.D., Detroit
D. S. Smith, M.D., Pontiac
C. F. Stevenson, M.D., Grosse Ile

TELEVISION COMMITTEE

W. S. Reveno, M.D., Detroit, *Chairman*
P. L. Cusick, M.D., Detroit
D. H. Kaump, M.D., Detroit
R. L. Mainwaring, M.D., Dearborn
E. A. Osius, M.D., Detroit, *Coordinator*

HOTEL RESERVATIONS

MICHIGAN CLINICAL INSTITUTE
Detroit, March 8-9-10-11, 1960

The reservation blank below is for your convenience in making your hotel reservation in Detroit. Please send your application to B. Van De Keere, Executive Offices, Sheraton-Cadillac Hotel, Detroit 31, Michigan. Mailing your application now will be of material assistance in securing the type of hotel accommodations you desire.

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant, when convenient.

Committee on Hotels
Michigan Clinical Institute
c/o Sheraton-Cadillac Hotel
Detroit 31, Michigan
Attention: B. Van De Keere

Please make hotel reservation(s) as indicated below:

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin-bedded Room(s) for.....persons

Arriving March.....hour.....A.M.....P.M.....

Leaving March.....hour.....A.M.....P.M.....

Hotel of First Choice:.....

Second Choice:.....

Names and addresses of all applicants including person making reservations:

.....
Name

.....
Address

.....
City Zone State

.....
Name

.....
Address

.....
City Zone State

.....
Name

.....
Address

.....
City Zone State

Date..... Signature.....

Address..... City.....

Michigan Clinical Institute, 1960

MCI SPEAKERS



Stuart M. Sessoms, M.D.



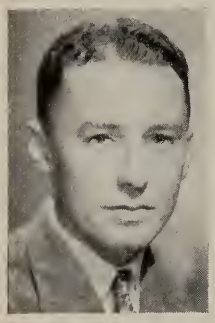
Erwin P. Vollmer, Ph.D.



Michael J. Brennan, M.D.



E. J. Hill, M.D.



J. B. Blodgett, M.D.

Program

TUESDAY, MARCH 8, 1960

10:00 a.m. **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

1:00 p.m. **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

FIRST ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. M. Nelson, M.D., Detroit
Secretary: J. M. Sheldon, M.D., Ann Arbor

P.M.
1:35 **WELCOME**

Milton A. Darling, M.D., Detroit
President, Michigan State Medical Society

Milton R. Weed, M.D., Detroit
President, Wayne County Medical Society

CANCER CONTROL

1:45 **Panel on "CHEMOTHERAPY OF CANCER"**

Moderator:
Stuart M. Sessoms, M.D., Bethesda, Maryland
Chief, Cancer Chemotherapy, National Service Center, Department of Health, Education and Welfare

Participants:
Michael J. Brennan, M.D., Detroit, Michigan
Physician in Charge, Oncology Division, Henry Ford Hospital

Erwin P. Vollmer, Ph.D., Bethesda, Maryland
Consultant in Endocrinology, Cancer Chemotherapy, National Service Center, Department of Health, Education and Welfare

Robert W. Talley, M.D., Detroit, Michigan
Associate Physician, Oncology Division, Henry Ford Hospital

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 **Symposium on "STEROIDS"**

Moderator:
Charles H. Slocumb, M.D., Rochester, Minnesota

Participants:
Robert B. Leach, M.D., Detroit, Michigan

(Other participants to be announced)

5:00 **End of First Assembly**

WEDNESDAY, MARCH 9, 1960

A.M.

8:30 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

SECOND ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: S. A. Fiegel, M.D., Sturgis

Secretary: L. F. Hayes, M.D., Gaylord

GENERAL PRACTICE DAY—SURGERY

9:00 **"Recent Advances in Treatment of Intestinal Obstruction"**

Walter G. Maddock, M.D., Chicago

9:30 **(Speaker to be announced)**

10:00 **INTERMISSION TO VIEW EXHIBITS**

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 **"Surgery of the Skin and Subcutaneous Tissues"**

Edward J. Hill, M.D., Detroit
Staff Member, Mt. Carmel Mercy, Harper and Wm. Beaumont Hospitals; Consultant, Veterans Administration, Wayne County General Hospital; Instructor in Surgery, Wayne State University College of Medicine

11:00 **Panel on "VARICOSE ULCERS"**

James B. Blodgett, M.D., Detroit
Chairman, Section of Cardiovascular Thoracic Surgery, Grace Hospital
Brock E. Brush, M.D., Detroit
Associate Surgeon, Division of General Surgery, Henry Ford Hospital
Eugene A. Osius, M.D., Detroit
Chief of Staff, Harper Hospital; Clinical Associate Professor of Surgery, Wayne State University College of Medicine

11:45 **Panel on "HOSPITAL CARE OF A SURGICAL WOUND"**

Moderator:
Homer M. Smathers, M.D., Detroit
Senior Instructor in Surgery, Wayne State University College of Medicine
Participants:
Nicholas S. Gimbel, M.D., Detroit
Associate Professor of Surgery, Wayne State University College of Medicine
Robert D. Larsen, M.D., Detroit
Instructor in Surgery, Wayne State University College of Medicine

P.M.

12:30 **End of color television program**

Luncheon

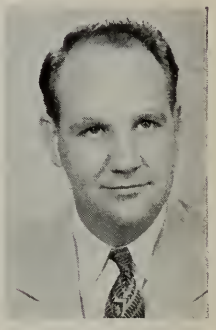
MCI SPEAKERS



B. E. Brush, M.D.



E. A. Osius, M.D.



H. M. Smathers, M.D.



N. S. Gimbel, M.D.



Robert D. Larsen, M.D.



W. H. Steffensen, M.D.

MCI SPEAKERS



W. H. Moncrief, M.D.



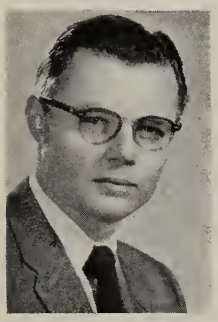
J. M. Dorsey, M.D.



M. L. Falick, M.D.



W. J. Hendrickson, M.D.



H. H. Comly, M.D.



H. H. Sadler, M.D.

WEDNESDAY, MARCH 9, 1960
THIRD ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: H. M. Smathers, M.D., Detroit
Secretary: H. M. Fuller, M.D., Detroit

GENERAL PRACTICE DAY—TRAUMA

P.M.

1:45 "Treatment of Traumatic Shock"
Merle M. Musselman, M.D., Omaha, Nebraska
Professor and Chairman, Department of Surgery, University of Nebraska College of Medicine

2:15 "Fractures in Children"
Claude N. Lambert, M.D., Chicago, Illinois

2:45 "The Hazards of Iatrogenic Pneumothorax in Certain Diagnostic and Therapeutic Procedures"
Robert Antoni, M.D., Detroit

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "The Challenge of Facial Lacerations"
Wallace H. Steffensen, M.D., Grand Rapids
Consultant in Plastic Surgery, Blodgett Memorial Hospital

4:30 "Trauma and Whole Body Radiation"
Lt. Col. Wm. H. Moncrief, Jr., M.C., Washington, D. C.
Director, Division of Surgery, Walter Reed Army Institute of Research, Walter Reed Army Medical Center

5:00 End of Third Assembly

WEDNESDAY EVENING, MARCH 9, 1960

Grand Ballroom, Sheraton-Cadillac Hotel

P.M.

8:00 Symposium on "PROBLEMS OF JUVENILE DELINQUENCY"

Chairman: John M. Dorsey, M.D., Detroit
Professor and Chairman, Department of Psychiatry, Wayne State University College of Medicine

MCI SPEAKERS

Principal Address by:

MORDECAI L. FALICK, M.D., Detroit

Assistant Professor in Department of Psychiatry, Wayne State University College of Medicine; Professorial Lecturer, Wayne State University School of Social Work; Lecturer, Psychoanalytic Training Center of Detroit

Panel Presentations:

"The Emotional Aspects"

WILLARD J. HENDRICKSON, M.D., Ann Arbor

Associate Professor of Psychiatry; Chief of Adolescent Service, University of Michigan

"The Behavioral Aspects"

HUNTER H. COMLY, M.D., Detroit

Child Psychiatrist in Pediatric Psychiatric Clinic, Department of Pediatrics, Wayne State University College of Medicine; Assistant Professor of Psychiatry, Wayne State University College of Medicine; Director, Children's Center of Metropolitan Detroit

"The Somatic Aspects"

H. HARRISON SADLER, M.D., Detroit

Associate Professor of Psychiatry, Wayne State University College of Medicine

"The Emergency and Follow-up Care Aspects"

CLYDE B. SIMSON, M.D., Detroit

Head of the Children's Services, Lafayette Clinic; Associate Professor of Psychiatry, Wayne State University College of Medicine

* * *

General Discussion—including questions and observations from the audience



C. B. SIMSON, M.D.



D. S. SMITH, M.D.



R. J. BING, M.D.



B. M. BULLINGTON, M.D.



S. W. HOOBLER, M.D.



Y. MORITA, M.D.

THURSDAY, MARCH 10, 1960

A.M.

8:00 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

FOURTH ASSEMBLY

ELEVENTH ANNUAL MICHIGAN HEART DAY

Sponsored by the Michigan Heart Association
Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: BENJAMIN I. JOHNSTONE, M.D., Detroit
Secretary: SIDNEY E. CHAPIN, M.D., Dearborn

HEART AND RHEUMATIC FEVER

8:30 **Panel on "HYPERTENSION"**

Moderator:

DONALD S. SMITH, M.D., Pontiac

Internist Consultant, Oakland County Tuberculosis Sanatorium and Pontiac State Hospital

MCI SPEAKERS



M. Clapper, M.D.



E. S. Gurdjian, M.D.



F. D. Dodrill, M.D.



W. S. Davies, M.D.



Bernard C. Wildgen, M.D.



D. Marshall, M.D.

Participants:

Richard J. Bing, M.D., Detroit
Professor of Medicine; Chairman, Department of Medicine, Wayne State University College of Medicine

Bert M. Bullington, M.D., Saginaw
Chief of Medicine, Saginaw General Hospital; Consultant in Medicine, Saginaw Veterans Administration Hospital

Sibley W. Hoobler, M.D., Ann Arbor
Professor of Internal Medicine, University of Michigan Medical School; Director of Hypertension Unit, University of Michigan

Yoshikazu Morita, M.D., Detroit
Assistant Professor of Medicine, Wayne State University College of Medicine

10:00 INTERMISSION TO VIEW EXHIBITS

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 **Demonstration and Discussion of "THE PHYSICAL SIGNS OF CONGESTIVE HEART FAILURE"**
Muir Clapper, M.D., Detroit
Professor of Medicine, Wayne State University College of Medicine

10:45 **Demonstration of "THE DIAGNOSIS OF CAROTID ARTERIAL OCCLUSION"**

E. Stephen Gurdjian, M.D., Detroit
Professor of Neurological Surgery, Wayne State University College of Medicine; Head of the Wayne State University Neuro-surgical Service, Grace and Detroit Memorial Hospitals

Warren G. Hardy, M.D., Detroit
Clinical Instructor in Neurosurgery, Wayne State University College of Medicine

David W. Lindner, M.D., Detroit
Clinical Instructor, Wayne State University College of Medicine

11:00 **"Cardiac Arrest in the Operating Room"**
Edward W. Crawford, M.D., Detroit, and
Forrest D. Dodrill, M.D., Detroit
Chief, Cardiac Research, Harper Hospital

11:30 **"Glaucoma with Instruction in Tonometry"**
Windsor S. Davies, M.D., Detroit
Professor of Clinical Ophthalmology, Wayne State University College of Medicine; Chief, Pathology Department, Kresge Eye Institute

12:00 Noon **"Common Ocular Fundus Findings"**
Bernard C. Wildgen, M.D., Muskegon, Michigan
Consultant in Ophthalmology, Hackley and Mercy Hospitals; Vice Chairman of Staff, Mercy Hospital; Diplomate, American Board of Ophthalmology

P.M. 12:15 **"Common External Eye Diseases"**
Don Marshall, M.D., Kalamazoo
Area Consultant to the Veterans Administration

P.M. 12:30 **End of color television program**

Luncheon

MCI SPEAKERS

THURSDAY, MARCH 10, 1960

FIFTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: W. D. Robinson, M.D., Ann Arbor
Secretary: Paul Ivkovich, M.D., Reed City

INTERNAL MEDICINE

P.M.

1:45 "A New Look at Food Poisoning"
Walter Malmann, Ph.D., East Lansing
Professor of Microbiology and Public Health, Michigan State University

2:15 "Evaluation of Drugs"
Harold D. Kautz, M.D., Chicago, Illinois
Secretary, Council on Drugs, American Medical Association

2:45 "Blood Component Therapy"
Wolf W. Zuelzer, M.D., Detroit
Director of Laboratories, Children's Hospital; Director of Child Research Center; Medical Director, Southern Michigan Blood Center

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "Aerospace Medicine"
George J. Kidera, M.D., Chicago, Illinois
Medical Director, United Air Lines; President-Elect, Aerospace Medical Association

4:30 **Clinical Movie of "PATIENT WITH MULTIPLE PERSONALITY"; Discussion of the case; and, some questions pertaining to present methods of psychiatry and therapies**
Corbett H. Thigpen, M.D., Augusta, Georgia
Associate Clinical Professor of Psychiatry, Medical College of Georgia

5:00 **End of Fifth Assembly**

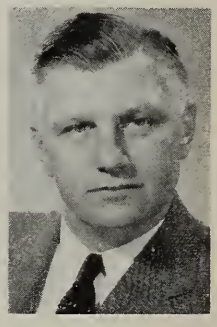
No Michigan Clinical Institute Meeting Thursday Evening



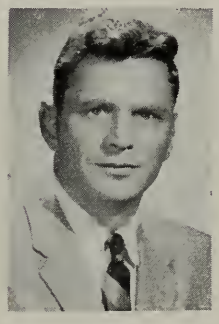
Harold D. Kautz, M.D.



W. W. Zuelzer, M.D.



George J. Kidera, M.D.



C. H. Thigpen, M.D.



Eugene N. Beesley



F. J. Hofmeister, M.D.

FRIDAY, MARCH 11, 1960

A.M.

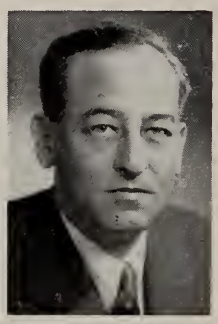
8:30 **REGISTRATION**—Fourth floor, Sheraton-Cadillac Hotel

9:30 **EXHIBITS OPEN**—Fourth floor, Sheraton-Cadillac Hotel

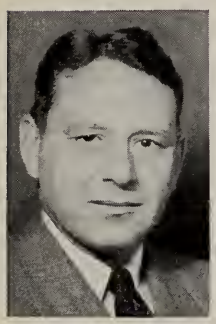
MCI SPEAKERS



J. R. MacDonald, M.D.



H. C. Mack, M.D.



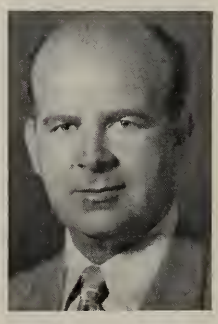
C. P. Hodgkinson, M.D.



L. P. Heath, M.D.



H. Henderson, M.D.



M. R. Lazar, M.D.

SIXTH ASSEMBLY

Grand Ballroom, Sheraton-Cadillac Hotel

Chairman: C. S. Stevenson, M.D., Grosse Ile
Secretary: G. C. Wilson, M.D., Clinton

OBSTETRICS-GYNECOLOGY

9:00 **Pharmaceutical Lecture**
"Today's Challenge for Medicine"
Eugene N. Beesley, Indianapolis, Indiana
President, Eli Lilly and Company

9:30 **"Prolonged Labor"**
Frederick J. Hofmeister, M.D., Milwaukee, Wisconsin
Associate Clinical Professor of Obstetrics-Gynecology, Marquette University

10:00 **INTERMISSION TO VIEW EXHIBITS**

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel through the co-operation of the staff of Harper Hospital, Detroit, and Smith, Kline and French Laboratories of Philadelphia

10:30 **"Early Detection of Cervical Carcinoma: Cytologic Techniques"**
John R. MacDonald, M.D., Detroit
Chief, Department of Pathology, Harper Hospital; Professor of Surgical Pathology, Wayne State University College of Medicine

Harold C. Mack, M.D., Detroit
Chief, Department of Obstetrics and Gynecology, Harper Hospital; Associate Clinical Professor of Obstetrics and Gynecology, Wayne State University College of Medicine

11:00 **Panel on "PROLAPSE UTERI"**
Moderator:
C. Paul Hodgkinson, M.D., Detroit
Chairman, Department of Gynecology and Obstetrics, Henry Ford Hospital; President, Michigan Society of Obstetricians and Gynecologists; President-Elect, American College of Obstetricians and Gynecologists

Participants:
Leonard P. Heath, M.D., Detroit
Diplomate, American Board of Obstetrics and Gynecology; Surgeon, Department of Obstetrics and Gynecology, Harper Hospital

Harold Henderson, M.D., Detroit

Morton R. Lazar, M.D., Detroit
Attending Surgeon, Dept. of Obstetrics and Gynecology, Harper Hospital; Attending Surgeon, Division of Obstetrics and Gynecology, Sinai Hospital; Senior Attending Surgeon, Division of Obstetrics and Gynecology, Crittenton General Hospital

MCI SPEAKERS

11:30 **Panel on "CLINICAL ASPECTS OF AGING"**

NATHAN W. SHOCK, PH.D., Baltimore, Maryland
Chief, Gerontology Branch, Baltimore City Hospital

JAMES E. BIRREN, PH.D., Bethesda, Maryland
Chief, Section on Aging, National Institute of Mental Health

FREDERICK C. SWARTZ, M.D., Lansing, Michigan
Chief, Committee on Aging, Council on Medical Service, American Medical Association

JOSEPH T. FREEMAN, M.D., Philadelphia, Pennsylvania
President-Elect, Gerontology Society; Clinical Assistant Professor of Medicine, Women's Medical College of Pennsylvania; Special Lecturer in Geriatrics, University of Pennsylvania Graduate School of Medicine

P.M.
12:30 **End of color television program**



FREDERICK C. SWARTZ, M.D.



JOSEPH T. FREEMAN, M.D.

12:30 **FINAL INTERMISSION TO VIEW EXHIBITS**

1:00 **End of 1960 Michigan Clinical Institute**

LEARNING TO LIVE IN THE COMMUNITY

(Continued from Page 2034)

futile effort to correct social problems, it would seem plausible that such research would far more than re-pay its financial costs through actual savings in public expenditures, even without giving consideration to the social and personality implications.

Summary

A vast amount of new theory and knowledge is developing on how people learn to perform expected ways of living as defined in the several thousands of different human cultures. Such knowledge is useful in developing a more adequate theory for educating mentally retarded or other handicapped persons to live in a society.

A community in any culture is composed of many social positions, such as baby, child, man, woman, physician, the sick person, or the friend. Any occupant of a social position is expected to learn the values and to perform the behavior expectations which the society assigns to the incumbent of the position. The performance expectations of a position are called social roles. Usually basic social roles in any society are patterned for such categories as age, sex, social class, and as in our society, occupation.

It would appear that mentally retarded persons may have difficulty in learning role meanings and in performing role expectations. A systematic use of existing knowledge as well as basic and applied research should facilitate better planning for the education of handicapped children, especially in teaching them role understanding and role performance.

Michigan's Department of Health

Albert E. Heustis, M.D., State Health Commissioner

New Policy Regarding Eligibility for Special Medical Certificate

The general policy regarding eligibility for special medical certificate for marriage license as required under Section 1A of Act 207, P.A. 1937, has been revised in accordance with recommendations made by the Venereal Disease Control Committee of the Michigan State Medical Society. The major change involves the issuance of special medical certificates to patients with early syphilis. In the past it was necessary for such patients to complete one year's satisfactory observation following treatment before special dispensation could be issued. It is now possible for patients with early syphilis to receive a special certificate immediately following treatment. The revised policy, which was approved by the State Council of Health on October 27, 1959, is as follows:

Early Syphilis.—All patients with early syphilis (less than 4 years' duration) shall have had adequate intensive penicillin therapy. This shall include not less than six million units of procaine penicillin total dosage, or 4,800,000 units of benzathine penicillin G. Recommended treatment schedules may be obtained from the Michigan Department of Health.

Late Latent Syphilis.—Required treatment same as for early syphilis.

Late Symptomatic Syphilis.—For most types, treatment is the same as for latent syphilis. In neurosyphilis give 15 daily doses of 600,000 units of procaine penicillin (9 million units); or give 1,200,000 units procaine penicillin with aluminum monostereate (PAM) twice weekly for four weeks, totaling 9,600,000 units.

Syphilis in Pregnancy.—Required treatment same as for early syphilis, unless labor is imminent, then give 2,400,000 units of penicillin immediately and follow-up as for early syphilis.

Congenital Syphilis.—Same as acquired syphilis. Late congenital syphilis should be treated the same as latent or late syphilis.

Persons Allergic to Penicillin.—Oxytetracycline hydrochloride (Terramycin), chlortetracycline hydrochloride (Aureomycin), chloramphenicol (Chloromycetin), erythromycin (Erythrocin) are recommended. At the present time it is recommended that total dosage be 40 to 60 grams (influenced by the amount of penicillin patient may have already received), usually given at the rate of ¼ to ½ gram Q.I.D.

Women with Late Syphilis.—Women with late syphilis but of child-bearing age should preferably have as much treatment as for early syphilis.

Factors Which Modify These Requirements.—

1. Factors which decrease the amount of treatment required:
   (a) *Persons with late syphilis* who are known to have had their infection for many years and are fifty or more years of age may be considered for special certification even without treatment. The female marital partner, however, to be certified in this classification must be incapable of bearing children through either physiologic or surgical menopause.
   (b) *Proven congenital syphilis.*
   (c) *Demonstrated pregnancy.* Special dispensation certification may be issued in such cases regardless of the presence of venereal disease in either or both parties to the proposed marriage. In such cases, however, the indicated treatment shall have been arranged for and satisfactory assurances given that it will be carried out.
   (2) Factors which increase the amount of treatment required:
   (a) History of clinical or serological relapse.

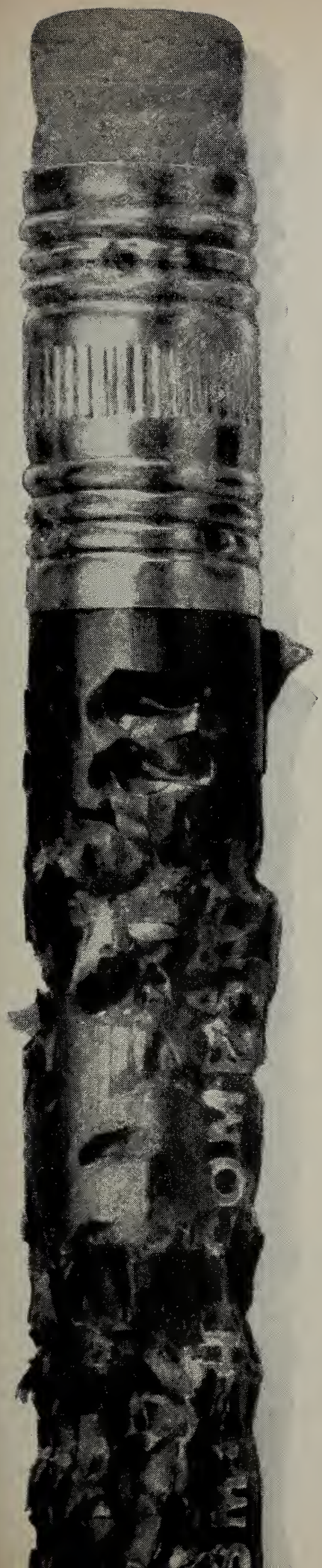
Gonorrhea and/or Chancroid.—If the patient is found to be infected with gonorrhea and/or chancroid, certification for marriage shall not be issued until the absence of gonorrheal infection and/or chancroid is demonstrated to the satisfaction of the physician.

Suspected Non-specific or Biologic False-Positive Serologic Reactions.—Frequent requests are made for special certification on the basis of false-positive serologic reactions without sufficient evidence to warrant such a request. Such cases must have been observed for sufficient time to establish the fact that the titre is not increasing as would develop with a new infection. A statement shall accompany the request that:

1. No history of syphilis or treatment of same can be secured;
2. No clinical evidence of syphilis is present;
3. That the presence of congenital syphilis is satisfactorily eliminated (preferably including an examination of the mother or siblings).

It is characteristic of false-positive reactions that they tend to be of weak titre. Frequently there is a disagreement between precipitation (Kahn, Kline, et cetera) tests and complement fixation (Wassermann) tests. They also tend to vary in degree of positivity from day to day and between laboratories. The presence of conditions recognized as causes of false-positive reactions have diagnostic weight. Often it is necessary to carry such cases under observation for many months before a decision can be made. Treatment shall not be begun until a diagnosis of syphilis is justified.

If the biologic false-positive reaction is suspected, one of the treponemal antigen tests such as the Reiter Protein Complement Fixation (RPCF), Treponemal Pallidum Complement Fixation (TPCF), or Treponemal Pallidum Immobilization (TPI) should be performed. These tests will assist in the differential diagnosis.



when you see signs of **anxiety-tension** specify

Dartal®

dihydrochloride

brand of thiopropazate dihydrochloride

for rapid relief of anxiety manifestations

You will find Dartal outstandingly beneficial in management of the anxiety-tension states so frequent in hypertensive or menopausal patients. And Dartal is particularly useful in the treatment of anxiety associated with cardiovascular or gastrointestinal disease, or the tension experienced by the obese patient on restricted diet. You can expect consistent results with Dartal in general office practice.

with low dosage: Only one 2, 5 or 10 mg. tablet t.i.d. *with relative safety:* Evidence indicates Dartal is not icterogenic.

Clinical reports on Dartal: 1. Edisen, C. B., and Samuels, A. S.: A.M.A. Arch. Neurol. & Psychiat. *80*:481 (Oct.) 1958. 2. Ferrand, P. T.: Minnesota Med. *41*:853 (Dec.) 1958. 3. Mathews, F. P.: Am. J. Psychiat. *114*:1034 (May) 1958.

SEARLE

In Memoriam

FRANK J. GIBSON, M.D., eighty-five, Jackson physician for thirty-seven years, died October 4, 1959.

Doctor Gibson was born in Jackson, attended Jackson High School and received his degree in medicine from the University of Michigan in 1902. He did some postgraduate work at the University of Vienna, finishing there in 1913.

At different times, he served as chief of staff at Foote and Mercy hospitals of Jackson.

NICHOLAS E. LANNING, M.D., fifty-two, Grand Rapids physician, died unexpectedly October 17, 1959.

Born in Drenthe, Michigan, Doctor Lanning attended Hope College, the University of Chicago and Rush Medical School, where he received his medical degree in 1935.

Doctor Lanning interned at Harper Hospital in Detroit before moving to Grand Rapids where he had practiced for twenty-two years.

He was a member of Madison Square Businessmen's Association and Burton Heights Christian Reformed Church.

THOMAS ALEXANDER McDONALD, M.D., sixty-five, Monroe ear, eye, nose and throat specialist, died October 13, 1959.

Doctor McDonald was born in Lanark County, Ontario, and was graduated from the University of Toronto Medical School in 1924. He served his internship and was in general practice in Charleston, West Virginia, from 1924 to 1927, when he came to Detroit for a residency at Grace Hospital. He started practice in Monroe in 1929, and was a former chief of staff at Monroe Mercy Hospital.

Joining the Canadian Army for service in World War I, Doctor McDonald was sent to England where he transferred to the Royal Air Force and served with the War Birds organization.

He was a member of the Monroe Rotary Club.

HAROLD A. MILLER, M.D., forty-eight, Saline physician, died October 15, 1959.

Born in Columbus, Ohio, Doctor Miller was graduated from the University of Michigan Medical School in 1935, and conducted a private practice in Saline between 1937 and this year except for time spent as a major with the U. S. Army Medical Corps in the South Pacific.

He was vice chief of staff of the new Saline Hospital and a member of the staffs of St. Joseph Mercy Hospital in Ann Arbor and Beyer Memorial Hospital in Ypsilanti.

Doctor Miller was president of the Saline School Board of Education for four of the eleven years between 1946 and 1957 he served on the board.

(Continued on Page 2068)



If she needs nutritional support . . . she deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York

Lederle

...Pathibamate® 400 200

meprobamate with PATHILON® tridihexethyl chloride Lederle

greater flexibility in the control of tension, hypermotility and excessive secretion in gastrointestinal dysfunctions

PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

meprobamate (400 mg. or 200 mg.) widely accepted tranquilizer and...

PATHILON (25 mg.)—anticholinergic noted for its peripheral, atropine-like action, with few side effects.

The clinical advantages of PATHIBAMATE have been confirmed by nearly two years' experience in the treatment of duodenal ulcer; gastric ulcer; intestinal colic; spastic and irritable colon; ileitis; esophageal spasm; anxiety neurosis with gastrointestinal symptoms and gastric hypermotility.

Because of individual variation in the intensity of stimuli in gastrointestinal disorders, adequate dosage for optimum control may be expected to vary as well. The dosage strengths of PATHIBAMATE-400 and PATHIBAMATE-200 facilitate individualization of treatment in respect to both the degree of tension and associated G.I. sequelae, as well as the response of different patients to the component drugs.

Supplied: PATHIBAMATE-400—Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride, 25 mg.
PATHIBAMATE-200—Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: PATHIBAMATE-400—1 tablet three times a day at mealtime and 2 tablets at bedtime.
PATHIBAMATE-200—1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.
Adjust to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

Lederle

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

HAROLD A. MILLER, M.D.

(Continued from Page 2064)

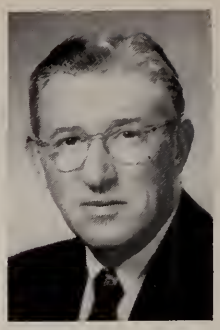
He was a member of the Saline Methodist Church, the Masonic Lodge, Order of Eastern Star, the Rotary Club, the American Legion, the Elks Lodge and the Tri-county Sportsman's Club.

EDWARD JAMES O'BRIEN, M.D., seventy-two, world famous Detroit chest surgeon, died October 19, 1959.

A native of Hatley, Wisconsin, Doctor O'Brien was graduated from the Detroit College of Medicine, now Wayne State University, in 1909. After his internship at Harper Hospital, he began practicing medicine in Detroit in 1911.

Doctor O'Brien became chief surgeon at Herman Kiefer Hospital, Detroit, in 1922 and chief of thoracic surgery in 1928. He served in the latter post for more than thirty years. During this period, he developed the "collapse therapy" method of treating tuberculosis, instigated Detroit's program for early diagnosis and treatment of tuberculosis and was instrumental in obtaining State subsidies for tuberculosis patients. In 1928, he was appointed to the State Tuberculosis Commission, serving as its president until 1950.

He was professor of thoracic surgery for Wayne State University, starting in 1934. In 1952, Doctor O'Brien became the first recipient of the Bruch H. Douglas Award for his outstanding contributions to the control and treatment of tuberculosis.



WALTER S. STINSON, M.D., fifty-eight, former MSMS counselor from Bay City, died October 15, 1959.

A 1929 graduate of the University of Michigan Medical School, Doctor Stinson interned at Grace Hospital, Detroit, and was on the staff of Henry Ford Hospital for two years before beginning practice in Bay City in 1932. He was a former chief of staff at both General Hospital and Mercy Hospital, Bay City. He served as a member of the MSMS House of Delegates for six years prior to his election as Councilor, and was a past president of the Bay-Arenac-Iosco County Medical Society. He was also a member of the American Academy of General Practice.

LARS W. SWITZER, M.D., fifty-eight, physician at the Chevrolet plant of General Motors in Bay City, died October 14, 1959.

Born in Wisconsin, Doctor Switzer spent his early years in Ludington and graduated in 1927 from the University of Illinois Medical School. After graduation he returned to Ludington to practice with his father, the late G. O. Switzer, M.D. Later, he received his master's degree in public health from the University of Michigan and was medical director for the Manistee-Mason-Benzie County Health Department.

For the past eight years Doctor Switzer was medical director at the Chevrolet plant at Bay City. He was on the staff of Mercy Hospital of that city.

Annual Clinical Conference

CHICAGO MEDICAL SOCIETY

March 1, 2, 3 and 4, 1960

Palmer House, Chicago

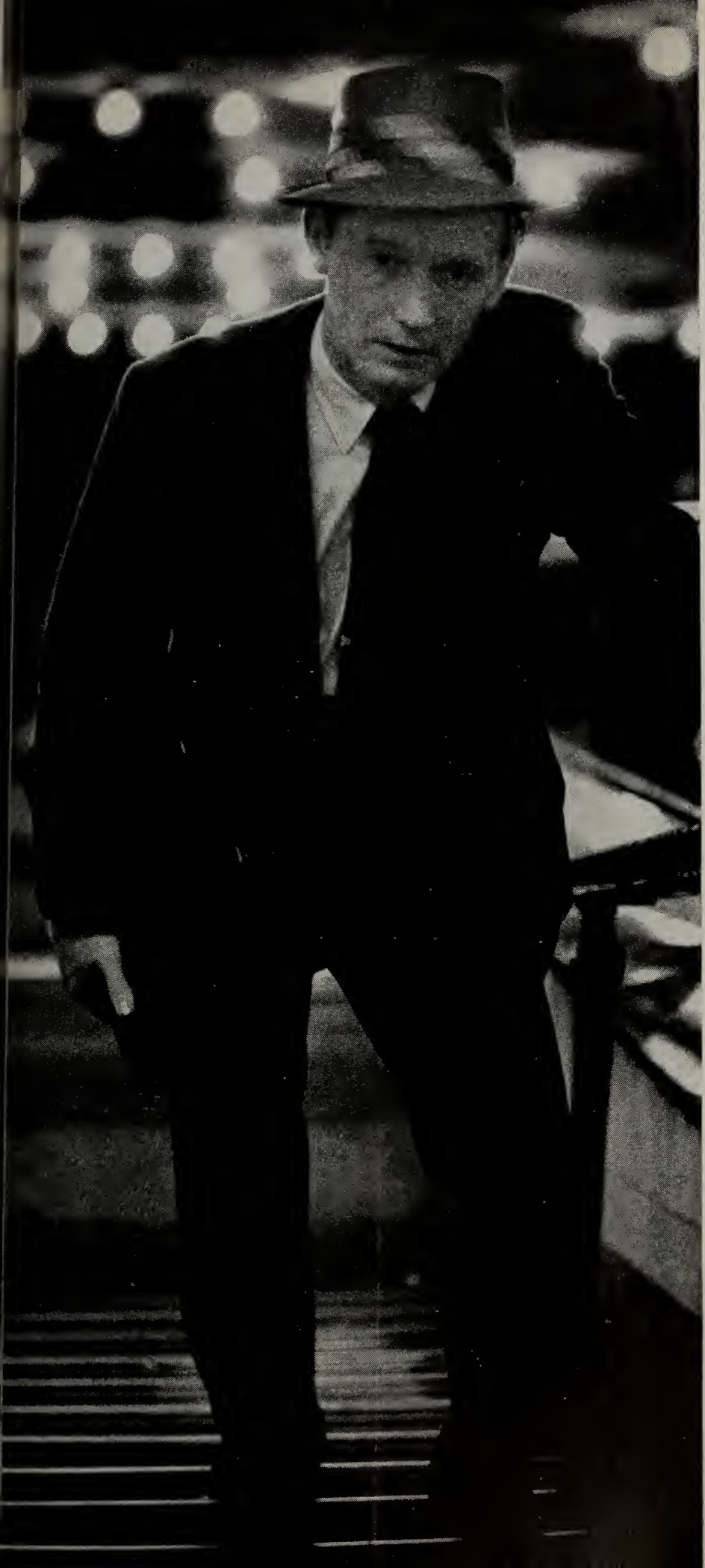
Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist.

Panels on Timely Topics — **Teaching Demonstrations**

Medical Color Telecasts — **Instructional Courses**

Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits.

The Chicago Medical Society Annual Clinical Conference should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.



in G.I. disorders

VISTARIL®

hydroxyzine pamoate

takes him off the tension treadmill

By restoring tranquility, VISTARIL rapidly helps to relieve functional pain and discomfort in many gastrointestinal disorders. Clinicians find that patients on VISTARIL more willingly accept their condition and adhere better to their regimen.

VISTARIL has an outstanding record of safety and is valuable adjunctive therapy in home or hospital when administered to patients with peptic ulcer, gastroenteritis, esophageal spasm, and nervous dyspepsia.

A Professional Information Booklet is available from the Medical Department on request.

Supply: Capsules—25, 50 and 100 mg.; Parenteral Solution—10 cc. vials and 2 cc. Steraject® Cartridges, each cc. containing 25 mg. hydroxyzine HCl.

Pfizer *Science for the world's well-being™*

PFIZER LABORATORIES
Div., Chas. Pfizer & Co., Inc.
Brooklyn 6, N. Y.



. . . . . NEWS MEDICAL

Michigan Authors

Wyman C. C. Cole, Sr., M.D., Detroit, is the author of an article entitled "Pediatrics in the Space Age," published in the *Journal of the American Medical Association,* October 10, 1959.

George E. Block, M.D., Ann Arbor, is the author of an article entitled "Endocrine Treatment of Advanced Mammary Cancer," published in GP, October, 1959.

Wyman C. C. Cole, Sr., M.D., Detroit, is the author of an article entitled "Pediatrics in The Space Age," read before the Section on Pediatrics at the 108th Annual Meeting of the American Medical Association, Atlantic City, June 9, 1959, and published in the *Journal of the American Medical Association,* October 10, 1959.

William W. Coon, M.D., and **Frederick A. Coller, M.D., F.A.C.S.,** Ann Arbor, are the authors of an article entitled "Some Epidemiologic Considerations of Thromboembolism" published in *Surgery, Gynecology and Obstetrics,* October, 1959.

Abraham Becker, M.D., F.A.C.P., and **Edwin Kerr, M.D.,** Detroit, are the authors of an article entitled "Pneumonia at Harper Hospital 1942-1958," published in the *American Practitioner and Digest of Treatment,* October, 1959.

Morris J. Lipnik, M.D., and **Stanley H. Levy, M.D.,** Detroit, are the authors of an article entitled "Defective Epidermal Utilization and Storage of S^{35} in Psoriasis," published in *AMA Archives of Dermatology,* July, 1959.

Morris J. Lipnik, M.D., and **Stanley H. Levy, M.D.,** Detroit, are the authors of an article entitled "Altered L-Methionine S^{35} Utilization in Psoriasis," published in *The Journal of Investigative Dermatology,*" April, 1959.

R. M. Balow, M.D., and **F. K. Wietersen, M.D.,** Detroit, are the authors of an article entitled "Post-emetic Rupture of the Esophagus," published in *Grace Hospital Bulletin,* July, 1959.

M. Harley Dennett, M.D., and **Stephen J. Figiel, M.D.,** Detroit, are the authors of an article entitled "Value of Added Filtration in Diagnostic Roentgenography," published in the *Grace Hospital Bulletin,* July, 1959.

Leo S. Figiel, M.D., and **Steven J. Figiel, M.D.,** Detroit, are the authors of an article entitled "Sigmoid Volvulus: Variations in the Roentgen Pattern," published in the *American Journal of Roentgenology,* April, 1959.

Coleman Mopper, M.D., and **James R. Rogin, M.D.,** Detroit, are the authors of an article entitled "Estrogen Therapy in Acne," published in the *Journal of the Michigan State Medical Society* and condensed in *Current Medical Digest,* October, 1959.

S. J. Axelrod, M.D., and **W. R. Mills, Ph.D.,** Ann Arbor, are the authors of an article entitled "Medical Manpower in Michigan: Applicants to Medical School," published in *The Journal of Medical Education,* September 1959.

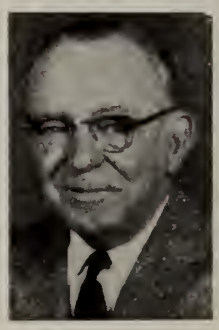
C. E. Rupe M.D., and **S. N. Nickel, M.D.,** Detroit, are the authors of an article entitled "New Clinical Concept of Systemic Lupus Erythematosus," published in the *Journal of the American Medical Association,* October 24, 1959.

* * *

Two internationally known physicians were presented honorary doctor of law degrees at the annual University of Michigan Medical Honors Convocation October 17, 1959.

University President Harlan Hatcher presented the degrees to Frederick A. Coller, M.D., and Udo J. Wile, M.D., both emeritus professors of the Medical School.

The Convocation closed the three-day meeting of the seventh Triennial Medical Alumni Conference, attended by 500 doctors from throughout the United States.



F. A. Coller, M.D.



Udo J. Wile, M.D.

Doctor Coller, major speaker at the convocation, retired in 1957 after serving as head of the U-M surgery department for twenty-seven years. His citation recognized Dr. Coller's "rare sensitivity to all needs of the surgical patient."

The Frederick A. Coller Society, founded in his honor in 1947, is made up of surgeons who trained under him. He has been president of the American Surgical Association and of the American College of Surgeons, and is one of fifty members of the Royal College of Surgeons of England. He remains active in private practice and research.

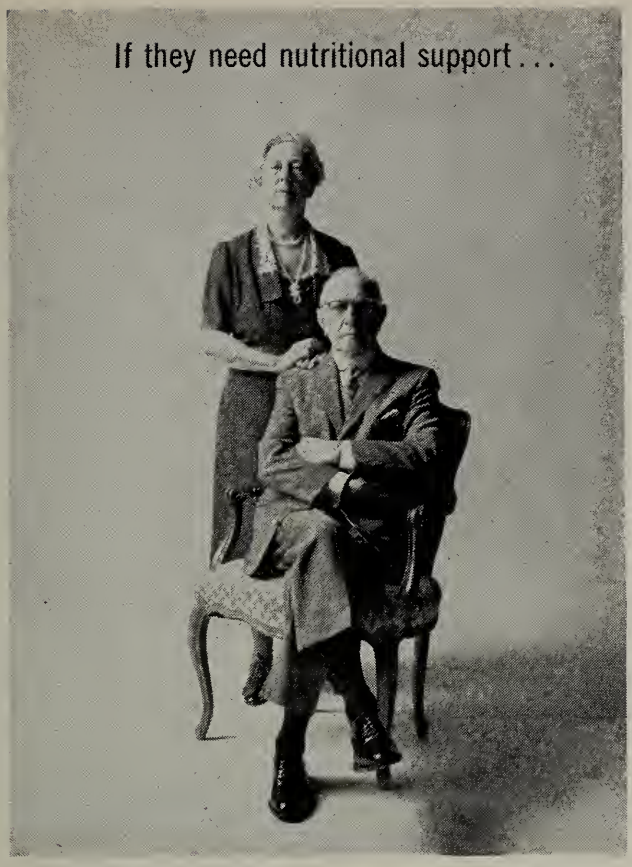
Dr. Wile, U-M professor emeritus of dermatology and syphilology and chairman of department for thirty-five years, was cited for his "contributions to the scientific knowledge of diseases and his advances in medical theory and practice."

Former president of the American Dermatological Association, Dr. Wile established the first university hospital clinic in the United States for training dermatologists and syphilologists. He retired from the University of Michigan in 1947 and is in private practice.

* * *

New Series E bonds with issue dates of June 1, 1959, and after will *earn 3 3/4 per cent* compounded semi-annually,

(Continued on Page 2084)



they deserve

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle



Cough Control

. . . combined with Phagocytic stimulation

USE AQUEOUS GUAIAFAGE

Rapidly effective in all upper-respiratory infections where ventilation by expectoration is necessary. Available only in 30 cc vials.

MEYER & COMPANY

Ethical Pharmaceutical Manufacturers

22601 MACK AVENUE . ST. CLAIR SHORES, MICH.

ALLERGIC RHINITIS

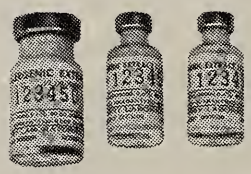
How to restore your patient's allergic balance the "classic" way . . . use specific desensitization for

LASTING IMMUNITY

For General Medicine, Internal Medicine, Eye, Ear, Nose, Throat, Pediatrics and Dermatology



ALLERGIC BALANCE is determined by skin testing. Diagnostic Sets $2 and up. Skin test your patients quickly and safely in your own office.



LASTING IMMUNITY is achieved by desensitization, economically, with IMMUNOREX, the "classic" treatment (contains only the specific irritants to which your patient reacts).

BARRY

Since 1928

Send TODAY for a complete catalogue and, if you wish, a Physician's Handbook and Manual for Nurse Assistant; to Barry's Allergy Division.

Barry Laboratories, Inc. • Detroit 14, Michigan
Manufacturers of Biologicals and Pharmaceuticals

(Continued from Page 2070)

if held to maturity (instead of former 3¼ per cent). The increase from 3¼ per cent to 3¾ per cent is accomplished by reducing the *term of the bond to seven years, nine months* (instead of former eight years, eleven months). There are also improved redemption values and investment yields if the new E bonds are held for less than the seven and three-fourths years to maturity.

New Series H bonds with issue dates of June 1, 1959, and after will *earn 3¾ per cent* if held to maturity (instead of former 3¼ per cent). The new H bond, like its predecessor, is a current-income bond, issued at par, redeemable at par (on one month's notice after six months' holding), and *maturing at par at the end of its ten-year life.*

As before, interim yields on the new H bonds are approximately the same as the new E's for equal periods of holding. Interest checks after the first three will be level providing 4 per cent current income after one and one-half years of holding.

All outstanding E and H bonds purchased prior to June 1, 1959, will *earn at least 1/2 per cent more than before from now to next maturity.* Present bonds earning 3¼ per cent or 3 per cent for their full current maturity periods will earn ½ per cent more. Those earnings 2.9 per cent will earn 6/10 per cent more. There will be lesser improvement in yields if redeemed earlier. The increase will be on a graduated scale, starting with next full interest period beginning June 1, 1959, or after. There is no retroactive increase in interest rates for periods prior to June 1, 1959.

Extension privileges on E bonds are as follows (a) Unmatured bonds:

1. Issued June 1949 through April 1957 (which had not reached maturity before June 1, 1959) on which a ten-year 3 per cent extension had already been promised, will now earn 3¾ per cent for the entire extension period if held the full ten years, with lesser yields (beginning at approximately 3½ per cent) if redeemed earlier. (The redemption value of any bond at the beginning of the new extension will be the base upon which interest will accrue during the ten-year extension period.)

2. Issued beginning with May 1957 will have a ten-year extension privilege, interest rates and other terms and conditions to be determined as they approach maturity; and (b) Matured bonds, issued May 1941 through May 1949, which are already in their extension period and which will begin to reach second maturity in May 1961, have been given a second ten-year extension. (Other terms and conditions including interest rates to be determined as they approach extended maturity.)

* * *

AMA Dues-Paying Members.—A new procedure for the AMA is to send to its dues-paying members the *Journal of the AMA, The AMA News, Today's Health,* and one of the ten AMA specialty journals. When paying AMA dues, please inform your county society of your choice of one of the following journals: *AMA Archives of Dermatology, AMA Journal of Diseases of Children, AMA Archives of Industrial Health, AMA Archives of Internal Medicine, AMA Archives of Neurology, AMA Archives of Ophthalmology,*

Say you saw it in the Journal of the Michigan State Medical Society

make them measure up



Incremin® with iron Syrup

Lysine-Vitamins Lederle

help restore the normal blood picture—iron as ferric pyrophosphate to restore or maintain normal hemoglobin.

boost appetite and energy—vitamins . . . B_1, B_6 and B_{12}.

upgrade low-grade protein—cereals and other low protein favorites of children, upgraded by l-Lysine, work with meat and other top protein to build stronger bodies.

tastes good! Each daily cherry-flavored teaspoonful dose (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.
Alcohol	0.75%

Bottles of 4 and 16 fl. oz.

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



KLING*

Conform Bandage
the amazing all-cotton bandage that:

Clings to itself — prevents slipping
Stretches — for controlled pressure
Conforms — to any body contour

*TRADEMARK



BAND-AID
TRADEMARK

Butterfly Closure

- Center section does not stick to wound
- Super-Stick adhesive holds wound edges together
- Sterile — Waterproof

Products of

Johnson & Johnson

G. A. INGRAM COMPANY
4444 Woodward Ave.
Detroit 1, Mich.

(Continued from Page 2084)

AMA Archives of Otolaryngology, AMA Archives of Pathology, AMA Archives of General Psychiatry, AMA Archives of Surgery.

* * *

H. A. Jarre, M.D., and Steven J. Figiel, M.D., presented a paper entitled, "The Radiologic Detection, Significance and Follow-up of Colonic Polyps," at the International Congress of Radiology in Munich, Germany, in July, 1959.

* * *

Increased Federal Health Service.—At its recent biennial convention on the West Coast, AFL-CIO went on record in reaffirmation of its support of increased government spending for public health, medical care and medical education. Resolutions were adopted which call for:

Federal grants to medical and dental schools to defray operating costs, buy needed equipment and improve physical plants.

Federal loans to consumer-controlled health service plans, including clinics furnishing care on a prepayment basis, for improvement of their facilities.

Strengthening of workmen's compensation laws to provide for full coverage of occupational diseases, coverage of diseases caused by ionizing radiation and full medical benefits for job-incurred personal injuries and occupational disabilities.

The labor convention, of course, urged prompt enactment of the Forand bill and deprecated "the erroneous information about the Forand bill which the AMA circulates."

* * *

"A Matter of Fact" is the fifth in a series of medico-legal films produced by The Wm. S. Merrell Company, Cincinnati pharmaceutical manufacturers, in co-operation with The American Medical Association and The American Bar Association.

The public and doctors often do not understand the criminal and civil implications which may stem from an inadequate post-mortem examination: Innocent men may be falsely accused, insurance claims may not be honored properly and numerous other problems may result. In a suspenseful drama, "A Matter of Fact" highlights one of the more serious implications. The film portrays a typical situation in which an innocent man is accused of murder due to the lack of technical training of a county official.

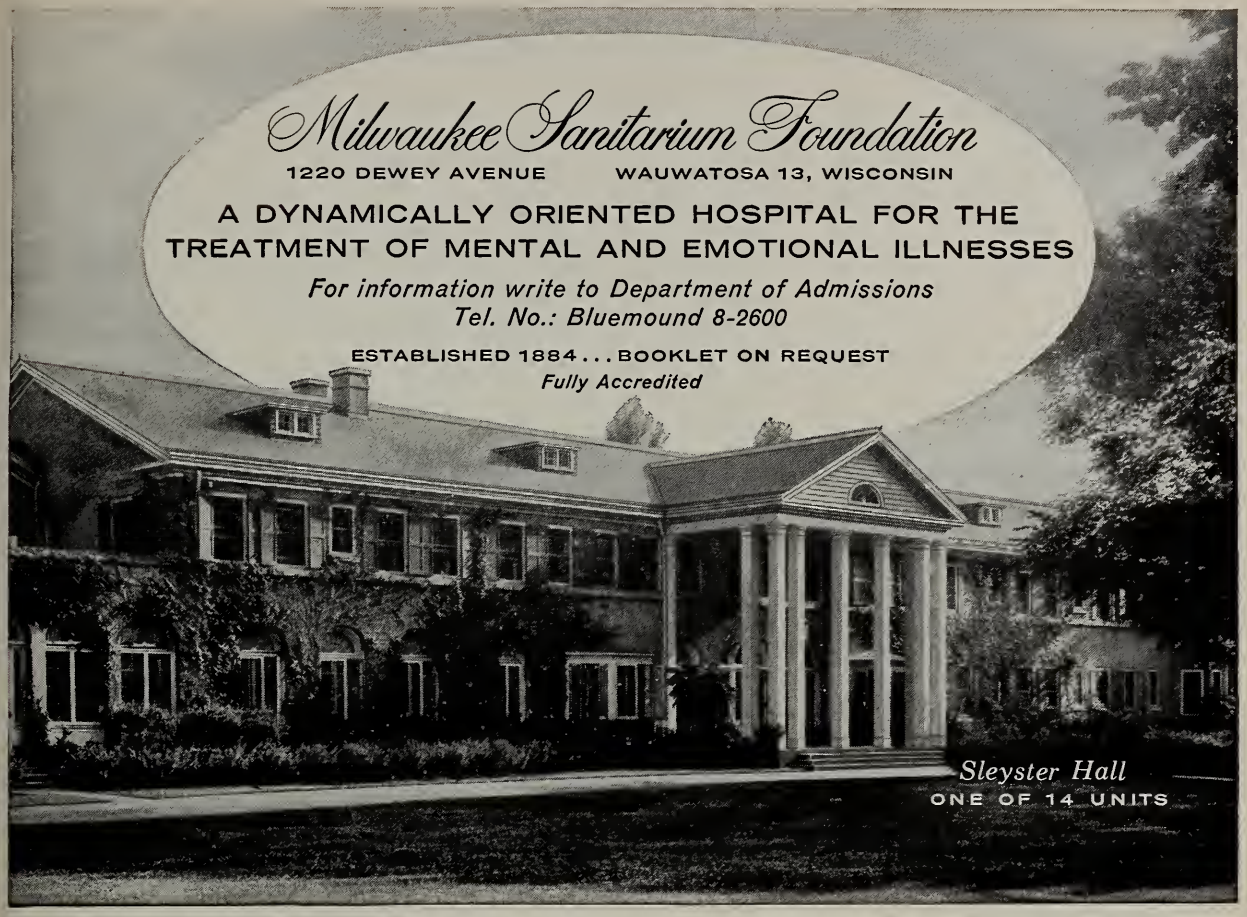
"A Matter of Fact" is a 16 mm. black and white optical sound film, running time, 30 minutes. Prints are available for loan from The Wm. S. Merrell Company, Cincinnati 15, Ohio, and the American Medical Association.

* * *

Two hundred physicians and scientists of the Society of Nuclear Medicine attended a one-day meeting at The University of Michigan, October 11, 1959, in the Cooley Memorial Building on the University's North Campus.

Co-sponsored by the U-M Medical Center, and Ann Arbor's St. Joseph's Hospital and Veterans Administration Hospital, the meetings were open to all persons interested in nuclear medicine. Among the participants were speakers from the U-M, Veterans Administration, University of Pennsylvania, Henry Ford Hospital and the Edsel Ford Institute for Medical Research.

(Continued on Page 2088)





he deserves

GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

LEDERLE LABORATORIES, a Division of
AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

(Continued from Page 2086)

Research-minded medical students at the University of Michigan can receive grants of $600 for part time research projects under a plan sponsored by the U. S. Public Health Service and supervised by the Medical School. Projects in both clinical and basic medical sciences are considered, and the applicant must design his project with the help of a responsible faculty member.

* * *

Triennial Reunion.—The University of Michigan's seventh medical alumni triennial reunion was held at Ann Arbor, October 15-17, 1959, with 450 doctors attending. The doctors attended sessions ranging from "Space Technology" to "Congenital Abnormalities" and "Modern Radiation Hazards." Portions of the program were carried over University Hospital's closed-circuit TV system.

H. N. Christensen, M.D., A. J. French, M.D., and M. H. Seevers, M.D., chairmen of the U-M Departments of Biochemistry, Pathology and Pharmacology, respectively, reported to the alumni on the teaching and research facilities in the Medical School's $8½ million Basic Sciences building which opened one year ago.

Major speakers at the scientific sessions included Dean H. Echols, M.D., of Tulane Medical School, New Orleans, La.; J. Robert Willson, M.D., chairman of the Department of Obstetrics and Gynecology at Temple University, Philadelphia; Robert W. Buxton, M.D., chairman of the Department of Surgery of the University of Maryland, Baltimore; Edward P. Cawley, M.D., chairman of the Department of Dermatology at the University of Virginia, Charlottesville; and James B. Wyngaarden, M.D., of Duke University Medical School, Durham, N. C.

* * *

A new x-ray therapy machine, made possible by a gift of $7,500 from the Washtenaw County Unit of the American Cancer Society is in operation at the University of Michigan Medical Center.

The apparatus is a 250-kilovolt constant potential treatment unit. Isadore Lampe, M.D., in charge of the Alice Crocker Lloyd Radiation Therapy Center, said that the unit fills an important gap which previously existed between the department's conventional x-ray facilities and the huge "Theratrons" which contain radioactive cobalt and cesium. The apparatus will be used largely in the treatment of malignant disease.

* * *

Donald J. Jaffar, M.D., was elected to a three-year term as secretary of the North Central Section of the American Urological Association, Inc. Dr. Jaffar is associate professor and acting chairman of the Urology Department, Wayne State University College of Medicine. The Association's annual meeting was held in Chicago the weekend of October 9.

(Continued on Page 2090)

Tested . . . and proved . . .

ORAL therapy in diaper rash!



Convenient . . . simply open a capsule and add the contents to the baby's daily formula, or to fruit juice or water. No lotions . . . no rinses . . . no ointments . . . just oral therapy.

Send for samples and literature.

S. F. DURST & CO., INC.
Philadelphia 20, Pa.

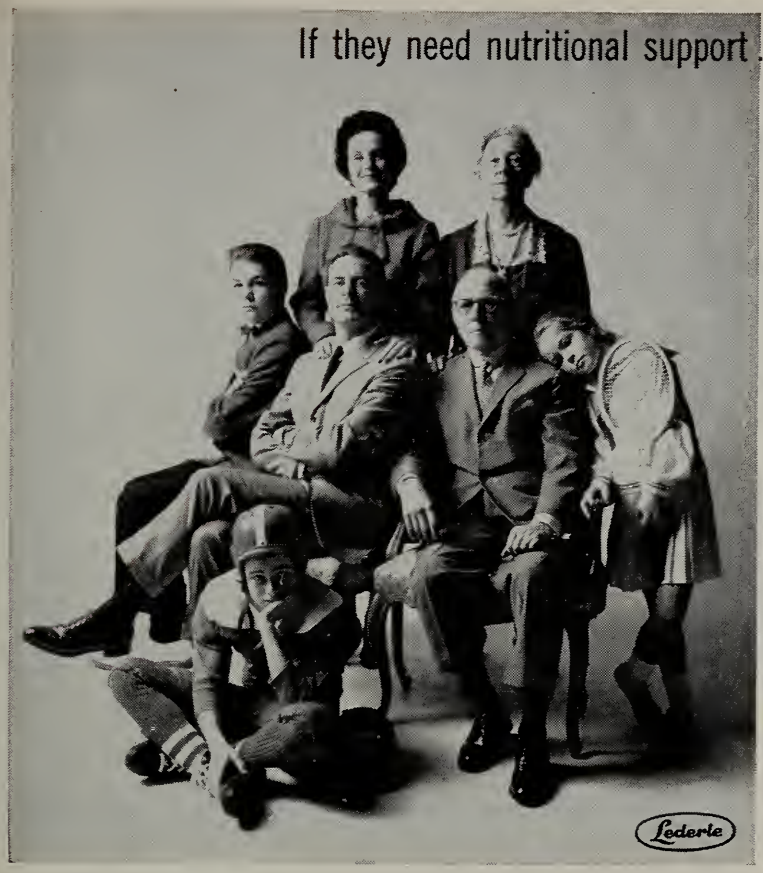
Effective therapy! Thousands of pediatricians and general practitioners prescribe Pedameth for ammonia dermatitis—and they continue to prescribe it. Clinical tests have proved its effectiveness. Pedameth is safe because it contains only dl-methionine (0.2 Gm.) one of the essential amino acids. When Pedameth is administered, the pH of the urine is lowered and an as-yet-unknown antibacterial agent appears in the urine. Pedameth works . . . it's the safe, effective, convenient answer to ammoniacal diaper rash.

Prescribe

PEDAMETH®

(dl-methionine DURST)

If they need nutritional support . . . they deserve



GEVRAL®

Vitamin-Mineral Supplement Lederle

CAPSULES—14 VITAMINS—11 MINERALS

Each capsule contains:	
Vitamin A	5,000 U.S.P. Units
Vitamin D	500 U.S.P. Units
Vitamin B_{12} with AUTRINIC® Intrinsic Factor Concentrate	1/15 U.S.P. Oral Unit
Thiamine Mononitrate (B_1)	5 mg.
Riboflavin (B_2)	5 mg.
Niacinamide	15 mg.
Folic Acid	1 mg.
Pyridoxine HCl (B_6)	0.5 mg.
Ca Pantothenate	5 mg.
Choline Bitartrate	50 mg.
Inositol	50 mg.
Ascorbic Acid (C)	50 mg.
Vitamin E (as tocopheryl acetates)	10 I.U.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Ferrous Fumarate	30 mg.
Iron (as Fumarate)	10 mg.
Iodine (as KI)	0.1 mg.
Calcium (as $CaHPO_4$)	157 mg.
Phosphorus (as $CaHPO_4$)	122 mg.
Boron (as $Na_2B_4O_7.10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Manganese (as MnO_2)	1 mg.
Magnesium (as MgO)	1 mg.
Potassium (as K_2SO_4)	5 mg.
Zinc (as ZnO)	0.5 mg.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

The Officers and Publication Committee of the
Michigan State Medical Society extend their

Best Wishes
for a
Merry Christmas
and a
Happy and Prosperous New Year
to our
Readers, and all Advertisers and Agencies who use
THE JOURNAL
of the Michigan State Medical Society

New!

BAND-AID

TRADE MARK

Plastic Strips



- ELASTIC PLASTIC
- FLESH COLORED
- STAYS CLEAN
- THIN, SMOOTH PLASTIC
- GREASE RESISTANT
- WON'T WASH OFF

100's 1"x 3"
100's ¾"x 3"

Conveniently Located in Grand Rapids

- Hospital Equipment
- Pharmaceuticals
- Office Equipment
- Physicians' Supplies
- Trusses
- Surgical Garments
- Physiotherapy Equipment

MEDICAL ARTS

SUPPLY COMPANY
311 State Street, S.E. Phone GL 9-9413

PHARMACY
20-24 Sheldon, S.E. Phone GL 6-9661

DRIVE-UP PHARMACY
311 State Street, S.E. Phone GL 9-8294

Grand Rapids, Michigan

(Continued from Page 2088)

Coffee break habits are changing, as twice-a-day breaks spread, reports the Pan-American Coffee Bureau. In 1957, outside eating places were visited during coffee break by 14 per cent of factory workers, 26 per cent of office workers and 52 per cent of store workers. Today, those leaving jobs at break time amount to only 5 per cent of factory workers, 20 per cent of office workers and 23 per cent of store workers. Today, 10 million workers get two breaks daily, compared to six million in 1956. Of all coffee breaks, 60 per cent are taken by workers at their work stations or desks.—*Industrial Relations News*, July 11, 1959.

* * *

"Health" Quackery.—In this age of sputniks, inter-continental ballistic missiles and radar contact with other planets, it seems incredible that health quackery should be a major problem in the United States. Yet, the March 1959 issue of *The Bulletin of the Better Business Bureau of Metropolitan Boston* presents some startling facts which indicate that not only is health quackery on the increase, but the money losses involved are staggering. Five hundred million dollars are misspent per year on nutritional quackery; $100 million on worthless reducing schemes; and $10 million per year in fake cancer cures.

Nor does this include millions more spent on worthless "cures" for such varied conditions as: alcoholism, anemia, arthritis, baldness, diabetes, kidney disease, rupture, tobacco habit and tuberculosis.—*Massachusetts Physician*, October, 1959.

* * *

Henry Baker, M.D., Boston, Massachusetts, Professor of Clinical Medicine, Tufts University School of Medicine, was chosen as President-elect of the American College of Gastroenterology, at the Annual Meeting of the College, held September 20, 1959, in Los Angeles, Calif. He will assume the Presidency at the Annual Meeting to be held in Philadelphia, Pa., in October, 1960.

Other officers elected were: Vice-Presidents—Drs. Louis Ochs, Jr., New Orleans, La.; Edward J. Krol, Chicago, Ill.; Theodore S. Heineken, Glen Ridge, N. J., and Henry G. Rudner, Sr., Memphis, Tenn.; Secretary-General—Dr. Lynn A. Ferguson, Grand Rapids, Mich.; Secretary—Dr. Louis L. Perkel, Jersey City, N. J.; Treasurer—Dr. William C. Jacobson, New York, N. Y.

* * *

Twenty-two postgraduate courses designed to keep practicing physicians abreast of current medical developments will be offered during the 1959-60 school year at The University of Michigan Medical Center.

John M. Sheldon, M.D., director of postgraduate medicine at the University of Michigan, said this marks the largest and most diversified selection in the twenty-eight-year history of the program. Last year, 1,157 doctors attended one or more courses. Open to any licensed physician, many of the meetings run only a few days. Others continue weekly throughout the school year.

The schedule for 1959-60 is as follows:

Anatomy (Thursdays): February 11-May 26; Basic Sciences: September 28-June 3; Clinical Exercises for Practitioners (Wednesdays): October 7- March 2; Internal Medicine (Tues-

(Continued on Page 2092)



For Quality without Question... Enjoy the unique refreshment of sparkling Coca-Cola

DRINK Coca-Cola REG. U.S. PAT. OFF



SIGN OF GOOD TASTE®

---

2 *year guarantee*

FULL SIZE

superior AC rejection

19 *other engineering achievements*

SPEEDS: 25 / 50 mm/sec.

Of course, the Birtcher has and always did have: Both 25 and 50mm paper speeds; A 2 year guarantee; Automatic continuous timing; Automatic blanking between leads; The fastest, simplest paper loading yet conceived; Full width paper; Full size trace; Linearity of base line at any point on the trace; Higher AC rejection; Accuracy beyond question, and now . . .

The new LEVELTEMP® styli

only the new

BIRTCHER Model 300 ELECTROCARDIOGRAPH

has all these features

One hand operation

NOBLE-BLACKMER, INC.

267 W. Michigan Ave. Jackson, Mich.

a
logical
combination
for
appetite suppression

meprobamate *plus* d-amphetamine

. . . suppresses appetite . . . elevates mood
. . . reduces tension . . . *without* insomnia,
overstimulation, or barbiturate hangover.

anorectic-ataractic
BAMADEX®
MEPROBAMATE WITH D-AMPHETAMINE SULFATE LEDERLE

Each coated tablet (pink) contains: meprobamate, 400 mg., d-amphetamine sulfate, 5 mg.
Dosage: One tablet one-half to one hour before each meal.

Lederle
LEDERLE LABORATORIES
A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Malpractice Prophylaxis

CONTACT YOUR
INSURER, NOT THE
CLAIMANT'S ATTORNEY

Specialized Service
makes our doctor safer

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively
since 1899

DETROIT Office
George A. Triplett and Richard K. Wind
Representatives
2405 West McNichols Road
Telephone University 2-8064

(Continued from Page 2090)

day evenings); Electrocardiography and Heart Diseases, September 8-January 26 and Renal, Pulmonary and Blood Diseases, February 2-June 14; Clinical Internal Medicine (Thursdays): October 1-March 3.

Internal Medicine—Gastroenterology: February 22, 23, 24; Rheumatology: March 2, 3, 4; Pulmonary Diseases: March 14, 15, 16; Allergy: March 14, 18, 19; Diseases of the Heart: March 21-25; Electrocardiographic Diagnosis: March 28-April 1; Recent Advances in Therapeutics: April 4-8; Endocrinology and Metabolism: April 11-15.

Clinical Neurology: April 18, 19, 20; Obstetrics and Gynecology: January 27, 28, 29; Ophthalmology: April 25, 26, 27; Otolaryngology: April 21, 22, 23; Pediatrics: January 25, 26, 27; Pyschiatry: February 29-March 1; Diagnostic Radiology: April 4, 5, 6; and Clinical Use of Radioactive Isotopes: as arranged.

* * *

Variation in a Population.—Is it impossible for an average American family to produce an unusual child? Do a few families have a monopoly on unusual children? Roger D. Milkman (Ph.D.), University of Michigan zoologist, says: "not if the inheritance of human traits follows patterns which seem to be emerging from studies of natural variation in many animals and plants."

The greater part of natural variation in a population may well turn out to be due to rare combinations of common genes rather than to single rare genes. "If verified for human populations," Assistant Prof. Milkman says, "this would mean that almost any family has a small but definite chance to produce a genius, an artist, a moron, or a child with a cleft palate. All it takes is the right combination of the genes which are present in most parents; it's like pulling a handful of spades out of a deck of cards—rare, but not impossible."

* * *

Care for the Handicapped.—A project designed to help the handicapped by the use of "scientifically-developed" assistive devices is underway at The University of Michigan's Medical Center and Research Institute. Investigators hope to design equipment that can be used by large groups of people with similar disabilities. The scope of the research calls for cooperation among doctors, occupational and physical therapists, psychologists, anatomists and engineers.

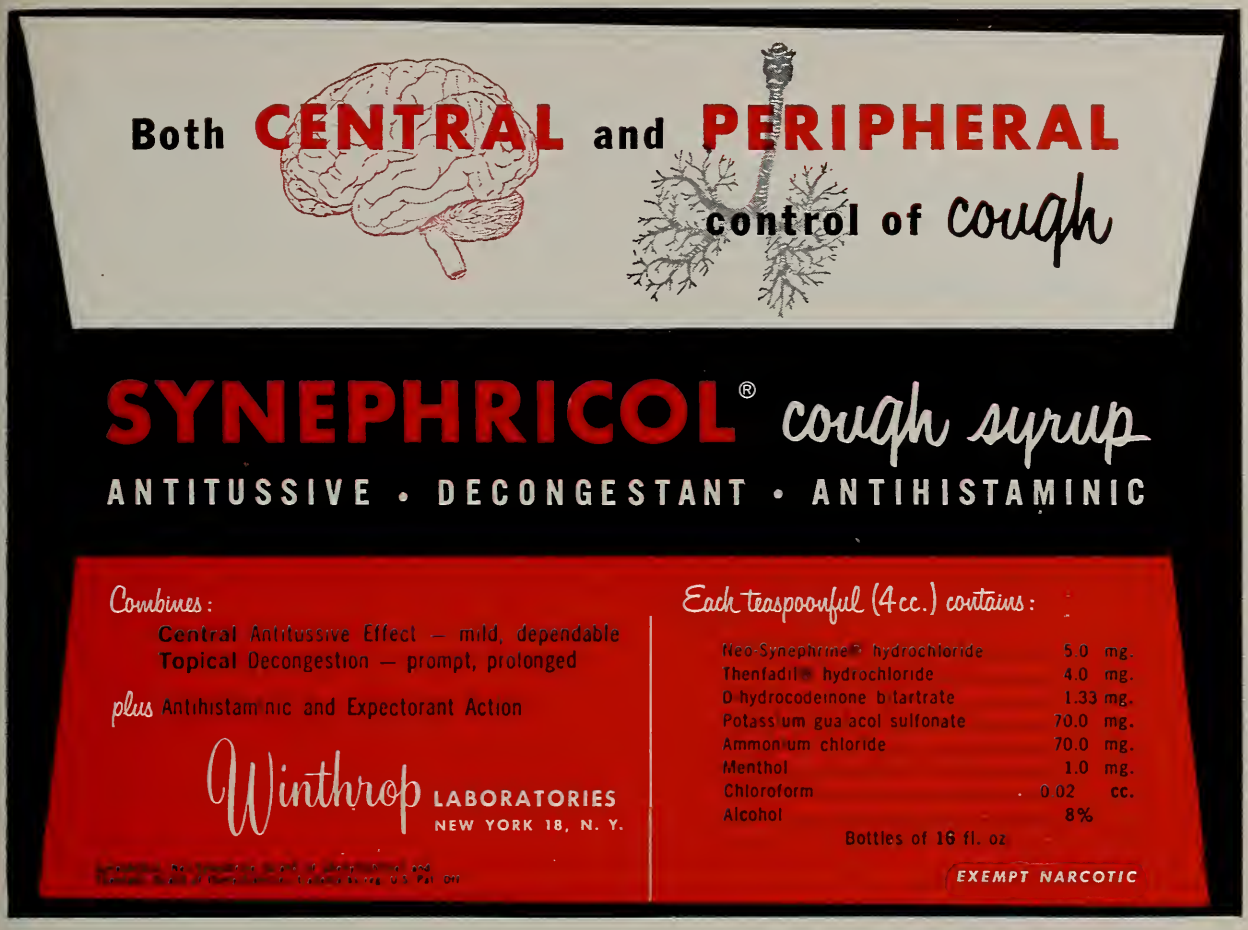
Speaking before the annual meeting of the American Occupational Therapy Association, Miss Beverly J. Granger, co-ordinator of the project, explained the role of assistive, or orthetic, devices in helping the handicapped. Miss Granger emphasized that "we are first gathering the necessary physical, psychological, social and vocational information required to design, prescribe and use orthetic devices more effectively."

The project, limited to disabilities of the arms, is backed by the Office of Vocational Rehabilitation of the U. S. Department of Health, Education and Welfare.

Director of the project is James W. Rae, Jr., M.D., chairman of the Department of Physical Medicine and Rehabilitation.

* * *

Audiometers to Screen Enlistees and Selectees.—"The Army Medical Service has set a new physical standard which may save the government several millions of dollars in claims each



year," says Colonel Walter H. Moursund, MC, Chief of the Physical Standards Office in the Army Surgeon General's Professional Division.

The new standard requires the use of audiometers to test the hearing of all enlistees and selectees examined at Armed Forces Induction and Examining Stations.

"By better detecting all types of borderline defective hearing," he added, "audiometers will eliminate many of the claims pressed against the Army and Veterans Administration each year, since any defects not detected on the pre-induction examination are assumed to have developed while in the Service."

"At the present time," he said, "most of these examining stations use a whispered and spoken voice test whereby the examinee is tested by his ability to hear an examiner who stands 15 feet away and whispers in different volumes."

Audiometric examinations have been given only when the whispered and spoken voice tests show below normal hearing.

* * *

Award of Merit.—The highlight of the Twelfth Annual Clinic Day at Bon Secours Hospital, Grosse Pointe, Michigan, was the presentation of an Award for Distinguished Service to Richard C. Connelly, M.D. A plaque thanking Dr. Connelly for his loyalty and efforts was given to him on behalf of the Sisters of Bon Secours and the medical staff at a dinner, October 21, 1959, attended by eighty-five members and their distinguished guests, Gordon Scott, M.D., Dean of Wayne State University School of Medicine, W. N. Hubbard, M.D., Dean of the University of Michigan Medical School, and Harry Towsley, M.D., Director of Graduate Education of the University of Michigan Medical School.

Bon Secours Hospital was founded as a hospital for the care of the acutely ill fourteen years ago and Dr. Connelly has been associated with the institution since this beginning. His wisdom and his ambition have been guiding forces for the Sisters and the staff. Because of his consistency of purpose, Bon Secours Hospital has grown, prospered, and become a better hospital. His primary aim always has been the improved care of the patient attained by demanding the best in himself: in his education, in his attitudes, in his conduct, and in his work as a physician.

Adherence to principle, devotion to teaching, and insistence upon excellence have characterized not only Dr. Connelly's own career but have also been an inspiration to all of us at Bon Secours Hospital.

* * *

SAMA—Lakeside Awards.—Medical students, residents and interns have been invited to prepare scientific exhibits to be displayed at the tenth annual convention of the Student American Medical Association in Los Angeles, May 4-8, 1960.

The three exhibits judged most outstanding in both the student and resident-intern categories will win SAMA-Lakeside Awards. The top winners in each category will be further honored by having their exhibits featured at the Scientific Exhibit Assembly of the American Medical Association during the annual AMA convention in Miami Beach, Florida, in June, 1960.

In addition to a prize of $500, and an Award certificate, the top winners will receive an expense free trip to the AMA

for modern
control of
salt retention
edema

CUMERTILIN®
(Brand of Mercumatilin, Endo)
Tablets

- effective **oral** diuretic with no significant gastrointestinal irritation[1]
- Suitable for long-term maintenance therapy.
- eliminates need for injections in certain cases, lengthens interval between injections in others
- basically **different** in chemical structure, extending the therapeutic choice in organic mercurials

DOSAGE: 1 to 3 tablets daily as required.

SUPPLIED: As orange tablets, in bottles of 100 and 1000. Also available—

CUMERTILIN Sodium Injection, 1- and 2-cc. ampuls, in boxes of 12, 25, and 100; and 10-cc. vials, individually and in boxes of 10 and 100

1 Pollock, B. E., and Pruitt, F. W.: Am. J. M. Sc., 226:172, 1953.

THE G. A. INGRAM COMPANY
4444 Woodward Avenue, Detroit 1, Mich.

convention. Second and third prize winners will receive $250 and $100, respectively, and an Award citation.

Top winners of the 1959 Awards were Conrad Proctor, University of Michigan Medical School, for his exhibit "The Development of Sensory Cell Innervation in the Inner Ear," and Eugene F. Bernstein, M.D., University of Minnesota Medical Center, for his exhibit "Intravenous Aortography."

Applications for the 1960 SAMA-Lakeside Awards should be sent to the Executive Director, SAMA, 430 North Michigan Avenue, Chicago 11, Illinois. Deadline for applications is January 1, 1960. Notification of accepted exhibits will be made February 1, 1960.

* * *

The greatest threat to the control of tuberculosis in Michigan today is the mistaken public impression that tuberculosis is no longer a problem, that miracle drugs have made us all safe from tuberculosis and that we can all now relax.

So said John L. Isbister, M.D., state tuberculosis control officer for the Michigan Department of Health, at the third annual bacteriology seminar at the Lansing Civic Center. The seminar was held October 29-30, 1959, under auspices of the Michigan Society of Medical Technologists and the state health department laboratories.

To show the size of the tuberculosis problem, Dr. Isbister pointed out that tuberculosis causes more deaths in Michigan than all other communicable diseases combined. Last year tuberculosis took the lives of 395 Michigan residents.

Adding to the problem is the fact that tuberculosis costs taxpayers more money for hospitalization than any other disease except mental illness. In 1958, Michigan taxpayers paid between $16 and $17 million for hospitalization of tuberculosis patients—$6 million paid by the state and between $10 and $11 million by the counties. About 3,100 patients are now being treated in tuberculosis sanatoriums.

Between 2,500 and 2,750 new cases of active or probably active tuberculosis are discovered in Michigan each year. On this basis, he estimates there are about 10,000 persons in the state with undiscovered active tuberculosis.

* * *

Norman F. Miller Gynecological Society.—Fifty doctors attended scientific sessions and dinner at the 4th annual meeting of the Norman F. Miller Gynecological Society at the University of Michigan Medical Center Alumni Conference week. The Society is composed of specialists in obstetrics and gynecology who trained at the University of Michigan under Doctor Miller.

Speakers included Allan C. Barnes, M.D., chairman of the Department of Obstetrics and Gynecology, Western Reserve University, Cleveland, Ohio; Willis E. Brown, M.D., chairman of the Department of Obstetrics and Gynecology at the University of Arkansas Medical School, Little Rock; Russell R. DeAlvarez, M.D., chairman of the Department of Obstetrics and Gynecology at the University of Washington Medical School, Seattle; and Richard W. Stander, M.D., of Indiana University Medical School, Indianapolis.

* * *

Aspects of Aging in Mental Health.—The University of Michigan has received $32,000 from the U. S. Department of Health, Education and Welfare to conduct an International Research Seminar on social and psychological aspects of aging in relation to mental health. Director Wilma Donahue

Say you saw it in the Journal of the Michigan State Medical Society

of the University of Michigan Division of Gerontology reports the seminar will be held in San Francisco in August, 1960.

* * *

Research Grants.—The University of Michigan Medical Center is one of fifty-three institutions sharing a Public Health service grant of $3\frac{1}{2}$ million to support the training of research scientists in medical and health-related fields. Funds were allotted to three separate training projects at the University of Michigan. A program in research dermatology directed by Dr. Isadore A. Bernstein received $21,362. Dr. Horace W. Davenport received $3,834 as director of a program in physiology. The sum of $41,040 was given for a training program in embryology and dermatology directed by Dr. James L. Wilson.

* * *

The U. S. Department of Health, Education and Welfare has revised its booklet, "Immunization Information for International Travel." Copies of the booklet may be obtained from Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 30 cents a copy.

* * *

COMING MEETINGS

The White House Conference on Children and Youth will be held in Washington, D. C., on March 27 to April 2, 1960. An attendance of 7,500 is anticipated.

The President's Conference on Occupational Safety will be March 1-3, 1960, at the Mayflower Hotel, Washington, D. C. An attendance of 2,500 is expected.

The Society of Nuclear Medicine is *pleased* to announce the forthcoming publication of its official organ, *The Journal of Nuclear Medicine*. The first quarterly issue will appear during the month of January, 1960.

George E. Thoma, M.D., of St. Louis, has been appointed editor. Associate editors are: Titus C. Evans, M.D., Iowa City; Niel Wald, M.D., Pittsburgh; and Eugene L. Saenger, M.D., Cincinnati.

The editorial content of *The Journal* will be directed toward those members of the medical and allied professions who are interested in the diagnostic and therapeutic application of radioisotopes and in human radiobiology.

Manuscripts and books for review should be directed to the Editor, George E. Thoma, M.D., Southwest Medical Center, 3915 Watson Road, St. Louis 9, Missouri. The annual subscription rate is $10.00, and such requests should be mailed to the publisher, Samuel N. Turiel & Associates, Inc., 430 N. Michigan Avenue, Chicago 11, Illinois.

* * *

Public Health Service Research.—In the fiscal year ended June 30, 1959, Public Health Service distributed grand total of 14,639 awards aggregating $236,522,434. Sums were divided as follows: Research projects, $142,627,730; construction and equipment grants, $32,012,994; training grants, $49,204,409; fellowships, $10,173,979; traineeships, $2,503,322.

Public Health Service announced award of ninety-eight new grants, totaling $3,461,700, to strengthen training programs for research scientists in following disciplines: Surgery,





Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.

---

for therapy of overweight patients

• **d-amphetamine**
depresses appetite and elevates mood

• **meprobamate**
eases tensions of dieting
(yet without overstimulation, insomnia or barbiturate hangover)

BAMADEX®
MEPROBAMATE WITH D-AMPHETAMINE SULFATE LEDERLE

is a logical combination in appetite control

Each coated tablet (pink) contains: meprobamate, 400 mg.; d-amphetamine sulfate, 5 mg.
Dosage: One tablet one-half to one hour before each meal.

Lederle
LEDERLE LABORATORIES
A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

pharmacology, biochemistry, genetics, pathology, microbiology, microbial and molecular genetics, veterinary pathology, statistics, anatomy, insect toxicology and physiology, embryology and development, pediatrics, obstetrics, cellular biology and dermatology. Universities comprise great majority of the 53 institutional recipients. Grants range in size from $2,160 to $81,324.

* * *

Changing the foreign language requirement for admission to The University of Michigan Medical School was approved by the Regents Friday, October 23.

The former requirement specified a college year's study in French, German, Spanish, Latin or Greek. The new requirement reads as follows:

"*Foreign Language:* All applicants are required to have at least one college year of a foreign language. This requirement may be met either by completing satisfactorily a two semester language sequence in college, or by certification of equivalent achievement in a language proficiency examination."

The change was requested by the Medical School faculty because it is felt that an increasing number of "gifted students" will be presenting language proficiency in Russian and possibly Oriental languages.

* * *

Veterans Administration and Geriatrics.—With the $17.3 million available for support of medical research in current fiscal year, Veterans Administration will put chief emphasis on diseases of the aging and study of the process of aging. Most of the VA hospitals will participate in co-operative investigations of cardiac diseases, mental illnesses, the malignancies and other conditions which assume added importance in an aging population.

* * *

American Cancer Grant.—In a most unusual switch, Uncle Sam is disclosed as the recipient of a cash grant for support of a cancer study project. Agriculture Department announced last week it has accepted $100,000 from American Cancer Society to expand research on avian leukosis. The money will permit enlargement of staff presently at work on this cancerous disease of poultry at Federal laboratories in East Lansing, Michigan.

* * *

Appointment of two assistant deans for the Medical School was approved by the Regents of The University of Michigan Friday (Oct. 23).

C. J. Tupper, M.D., was appointed on a half-time basis and H. Waldo Bird, M.D., was named on a three-eighths time basis, both appointments being effective November 1.

Dr. Tupper's activities as director of the periodic health appraisal program for the University faculty and as director of the consultation services of the University Health Service will be adjusted to permit him to devote half of his time to the assistant dean's post. He will have responsibilities in the general administrative activities of the dean's office.

Dr. Bird will continue as associate professor of psychiatry and will retain his private practice. He will be responsible for student affairs.

* * *

Moses M. Frohlich, M.D., professor of psychiatry in the Medical School, has been granted a sabbatical leave from November 1, 1959 to April 30, 1960. He plans to complete several research projects and also complete a major revision

Say you saw it in the Journal of the Michigan State Medical Society

of the diagnostic manual published by the American Psychiatric Association eight years ago.

* * *

An invitation is extended by the George W. Merck Memorial Loan Fund to deserving interns and residents to apply for financial assistance. The Merck Foundation plans payments totaling $400,000 to participating medical schools.

* * *

Bruce D. Graham, M.D., formerly of Ann Arbor, is the new chairman of the department of pediatrics at the University of British Columbia, assuming that position in November.

* * *

The eleventh annual Symposium on Recent Advances in the Study of Venereal Diseases will be held April 7-8 at the Palmer House, Chicago. Interested physicians are invited to attend the event sponsored by the U. S. Public Health Service and the American Venereal Disease Association.

* * *

F. E. Greifenstein, M.D., Detroit, accepted an invitation this fall to become a visiting professor at two Japanese medical colleges. The invitation to teach at Keio University and Kyushu University was extended by the China Medical Board.

* * *

Harold H. Gay, M.D., Midland, is the new chairman of the State Board of Alcoholism. He succeeds Harlan J. Yelland, of Escanaba, who died in May. Doctor Gay is medical director of the Dow Chemical Company.

Thomas J. Heldt, M.D., Detroit, also is a member of the Alcoholism Board.

During the past twenty years the average length of stay per patient in the hospital has decreased from 12.5 to 8.6 days, reports the Health Information Foundation.

The decline in the average length of stay per patient, reports the Foundation, is very much the result of new medical knowledge, early ambulation following surgery, new medical and surgical procedures and new pharmaceutical products.

In making the study, the Foundation compared data from U. S. Public Health Service studies from 1928 to 1943 with hospital-admission data for July 1957 to June 1958 derived from the Public Health Service's current National Health Survey.

* * *

The fine cooperation of the Wyeth Laboratories made it possible for MSMS Venereal Disease Committee to distribute 3,000 copies of a Wyeth booklet, "Management of Syphilis" by Evan Thomas, M.D., at the 1959 Annual Session.

* * *

One-third of hospital patients now receive antibiotics. That finding was reported by a study of eighty-seven participating hospitals by the Commission on Professional and Hospital Activities, Virgil N. Slee, M.D., director, Ann Arbor. The report was based on a study of 55,000 patients, with the thirty-three smallest hospitals using the most antibiotics, 41.5 per cent.

* * *

William Bromme, M.D., Detroit, told the annual Cancer Workshop at Michigan State University that cancer "quacks" are the greatest ally of the dreaded killer disease. Partici-



BRIGHTON HOSPITAL

A non-profit foundation

FOR ALCOHOLISM

A facility designed to rehabilitate or to aid the addict in arresting his addiction.

Brighton Hospital meets the standards established by the Michigan State Board of Alcoholism and is recommended by that Board.

12851 East Grand River
One block south of U. S. 16 at Kensington Road
Brighton, Michigan
ACademy 7-1211

pants in the workshop sponsored by the Michigan Cancer Foundation heard Doctor Bromme urge greater cooperation between volunteer workers and physicians. "Knowledge defeats fear, and it is the imparting of knowledge about cancer control by volunteers that will save many people from falling into the hands of cancer quacks," he declared.

* * *

Since their 104th annual meeting will be the first under statehood, the Hawaii Medical Association extends a special invitation to interested Michigan doctors to visit Honolulu May 12-15 for the scientific session. President Toru Nishigaya, M.D., reports that an exceptional program is planned.

a
logical
adjunct
to the
weight-reducing regimen

meprobamate *plus* d-amphetamine

...reduces appetite...elevates mood...eases tensions of dieting...*without* overstimulation, insomnia, or barbiturate hangover.

anorectic-ataractic

BAMADEX®

MEPROBAMATE WITH D-AMPHETAMINE SULFATE LEDERLE

Each coated tablet (pink) contains:
meprobamate, 400 mg.; d-amphetamine sulfate, 5 mg.
Dosage: One tablet one-half to one hour before each meal.

Lederle

LEDERLE LABORATORIES
A Division of AMERICAN CYANAMID COMPANY, Pearl River, N.Y.



THE CRANE PLAN is the fruit of 30 years experience and research in billing and collecting current and past due accounts for members of the Michigan State Medical Society.

CRANE DISCOUNT CORP.
Executive Offices
221 WEST 41st STREET
NEW YORK 36, N. Y.

SAMMOND PLEASANT LODGE

Offers to the elderly and chronically ill

Peace and quiet. Freedom of a large and richly furnished home and acres of lawns and wooded rolling grounds, scientifically prepared tasty meals, congenial companionship. A real

"Home away from Home"

Approved by the American Medical Association and Michigan State Department of Social Welfare—Highly recommended by members of the Medical Profession who have had patients at the Lodge.

For further information write to:

SAMMOND PLEASANT LODGE
124 West Gates Street
Romeo, Michigan

Laboratory Examinations
Tissue Diagnosis

Allergy Tests
Autopsies
Bacteriology
Basal Metabolism
Chemistry
Electrocardiograms
Hematology
Papanicolaou Stain
Pregnancy Tests
Protein Bound Iodine
Urinalysis

Serology—Kahn and Wassermann

CENTRAL LABORATORY
Oliver W. Lohr, M.D., *Director*
537 Millard Street
Saginaw, Michigan
PHONE: Pleasant 2-4100
2-4109

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE FOOT AND ANKLE. Their Injuries, Diseases, Deformities and Disabilities. By Philip Lewin, M.D., F.A.C.S., F.I.C.S., Professor Emeritus of Bone and Joint Surgery, and formerly Head of Department, Northwestern University Medical School; Professor of Orthopedic Surgery, Postgraduate Medical School of Cook County Hospital; Attending Orthopedic Surgeon, Cook County Hospital; Senior Attending Orthopedic Surgeon, Michael Reese Hospital, Consulting Orthopedic Surgeon, Municipal Contagious Disease Hospital, Chicago; Colonel, Medical Corps, Army of the United States (Retired). 339 illustrations. Special drawings by Harold Laufman, M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School; formerly Major, Medical Corps, Army of the United States. Fourth edition, thoroughly revised. Philadelphia: Lea & Febiger, 1959. Price, $14.00.

This edition has been considerably revised from the preceding one, especially in the field of trauma where the lessons of World War II and the increasing numbers of traumatic injuries in everyday life have succeeded in some consolidation of the thinking on the management of these problems.

Although useful to any practitioner, the book is most helpful to the general practitioner as its encyclopedic coverage of problems in the foot and ankle, plus a rather didactic approach to therapy, is of most value to one not particularly at home in caring for foot and ankle problems. As such, it furnishes a handy and quick reference.

Congenital, neuromuscular, metabolic and other areas are also covered, in addition to trauma, lest one consider the book is only for the surgeon.

The volume deserves a place in one's reference library.

R.H.A.

THE POWER OF SEXUAL SURRENDER. By Marie N. Robinson, M.D. Garden City, New York: Doubleday & Company, Inc., 1959. Price, $4.50.

This book fills the gap between the strictly medical books on sex physiology and the more common and more numerous anatomical texts on this subject. The author's treatment of frigidity is one of the best written today. The many taboos and false impressions women have passed on through the years are corrected.

The idea of frigidity being due to the male partner or some anatomical deformity is disproved; childhood experiences or teaching are shown to be the basis of many cases of frigidity. This book is more fitting for the already married couples rather than for those who are anticipating marriage and is of prime importance to the female partner. Case histories, together with practical examples, serve as an adjunct to the theoretical material.

J.R.P.

...MALNUTRITION OR
LEG CRAMPS DURING PREGNANCY?

OUTMODED AS GODEY'S FASHIONS!

℞ NEW

PRENALIN-O®

PRENATAL SUPPLEMENT

1. Oyster Shell Calcium - Phosphorus Free!
2. New Form of Iron!
3. Dry Filled Capsule - Sure, Quick Absorption!
4. Economical Once-A-Day Dosage!
5. Wider Range Nutritional Support!
6. Relieves Troublesome Leg Cramps!



EACH dry filled capsule (lavender and white) provides:

Ferrous Fumarate (Iron)	150 mg.	Vitamin B-12 (Cobalamin conc. NF)	2 mcg.
Deep sea oyster shell (Calcium)	600 mg.	Folic Acid	0.25 mg.
Vitamin C	50 mg.	Niacinamide	10 mg.
Vitamin A	4000 USP Units	Vitamin K (Menadione)	0.25 mg.
Vitamin D	400 USP Units	Rutin	10 mg.
Vitamin B-1	2 mg.	Sodium Molybdate	3 mg.
Vitamin B-2	2 mg.	Fluorine (Calcium Fluoride)	0.25 mg.
Vitamin B-6	0.8 mg.	Iodine (Potassium Iodide)	0.15 mg.

SAMPLES ON REQUEST

TUTAG

S. J. TUTAG & CO.

DETROIT 34, MICHIGAN

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

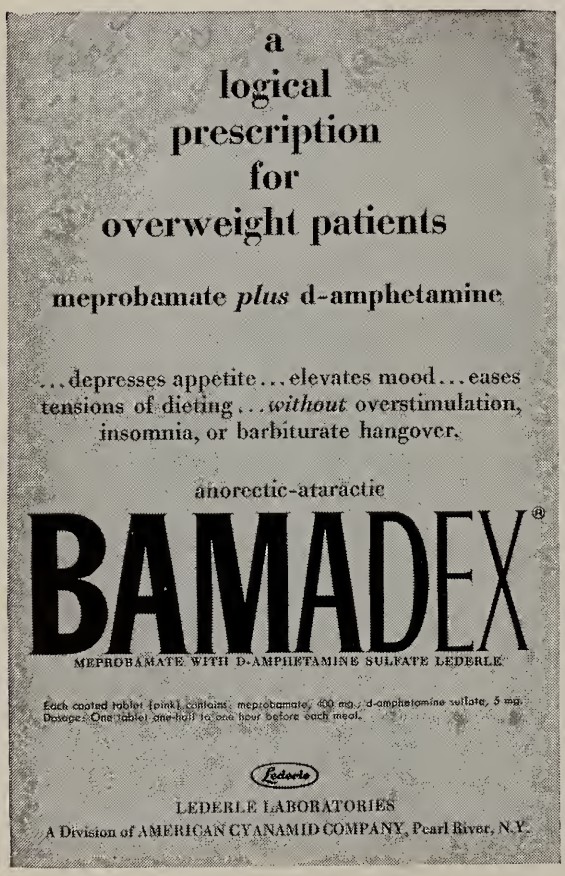
PHYSICIANS WANTED

GENERAL PRACTICE RESIDENCY—Fully accredited by JCAH. Staffed by Clinic Group closely associated with Hospital. Only graduates of approved Medical Schools or E.C.F.H.G. Certified will be considered. Salary, $6,000 yearly. Positions available January 1, 1960, and July 1, 1960. Contact: Director, The Lynn Hospital, Detroit, Michigan.

GENERALIST—For association with Clinic and Hospital Group. To head active emergency service of fully approved JCAH Hospital. Salary open; annual increments; bonuses; vacations; et cetera. Contact: Director, The Lynn Hospital, Detroit, Michigan.

WANTED—Woman associate. Woman's General Practice in Southern Michigan. Established forty-one years. Unlimited opportunity in active community of 10,000. Write: Box No. 22, 606 Townsend Street, Lansing, Michigan.

WANTED—Psychiatrist. Salary to $15,000. State minimum. Security correctional facility in highly desirable area. Write: Chief Medical Officer, California Men's Colony, Los Padres, California.



FOR SALE: Lucrative general practice home-office combination located in rich farming and resort area. Good swimming, fishing and hunting. Office equipment, records, ample drugs and additional lot included. Grossed over $43,000 last year. Owner leaving for residency January 1, 1960. Price $25,000 with $5,000 down. Write: Box 21, 606 Townsend Street, Lansing 15, Michigan.

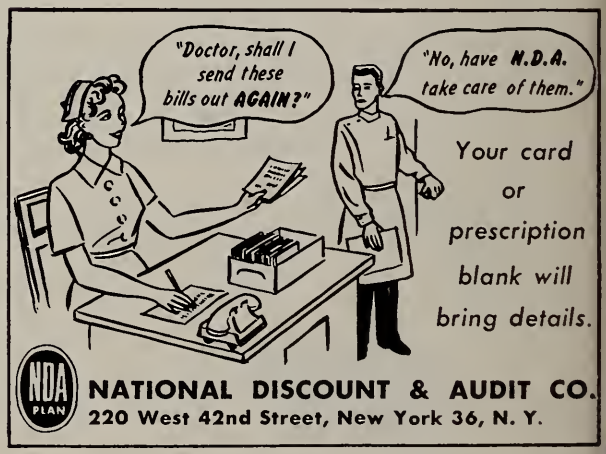
FOR SALE—Spacious offices for one or more Doctors or Dentists in a growing community, 35 miles from Detroit. Located on Main Street. Newly remodeled, on 66x135 foot lot. X-Ray laboratory, reception rooms, living quarters, fireplace, three-car garage. Hospital facilities available. Long established medical practice. Terms. Reply to: J. Hammond, 2010 Cole Avenue, Birmingham, Michigan.

ASSOCIATE—General Practice with two other doctors. Excellent hospital facilities. City of 60,000. Must be under 40 years and have Michigan license. Reply: Box 24, 606 Townsend Street, Lansing 15, Michigan.

INTERNIST—Board-eligible 38, family, experienced clinical research, teaching; chief interests cardiovascular, arthritic, geriatric diseases. Prefer Midwest or Southwest individual, small group near medical school. Licensed in Michigan. References, curriculum vitae available. Reply: Box No. 23, 606 Townsend Street, Lansing, Michigan.

FOR LEASE—Office space in Professional Building, Dearborn, Michigan. Preferably otorhinolaryngologist (much needed in this area). Very modern building, presently under construction. Well-established Surgeon, Obstetrician-Gynecologist, Internist, Urologist, Dermatologist. Laboratory and Pharmacy. Call LOgan 1-7919 or write: Joseph M. Caputo, M.D., 2021 Monroe Blvd., Dearborn, Michigan.

FOR SALE—Well-established general practice in city of 200,000, northeastern Michigan. Ideally located in growing suburban area. Modern, fully equipped office on ground floor. Will rent or sell on terms. Contact: Box No. 8, 606 Townsend Street, Lansing, Michigan.



Index to Volume 58

INDEX TO AUTHORS

Abowd, Richard, Jr., 1633
Adlersberg, David, 773
Ahronheim, J. H., 611
Aitken, Alexander T., 1121
Anderson, Charles P., 1285, 1612
Aster, Richard A., 927, 1077
Ayd, Frank J., Jr., 1987

Barron, D. W., 1477
Barrows, Winona, 1796
Basinger, Clair E., 1791
Beatty, James, 377
Beck, Otto O., 736
Behrens, Charles F., 1615
Beierwaltes, William H., 927, 1077
Beninson, Joseph, 216
Bensley, Edward H., 738
Bentley, M. D., 1483
Berry, Robert E. L., 403
Bethell, F. H., 614
Bird, H. Waldo, 620
Birkhill, F. Ross, 1628
Birtch, Paul K., 86
Bishop, R. C., 614
Blackhurst, R. T., 1279
Block, Melvin A., 216
Bockus, Henry L., 781, 1990
Brines, Osborne A., 566
Bringard, Elmer L., 1466
Brown, Francis C., 229
Brush, Brock E., 216

Campbell, R., 1289
Cantor, Meyer O., 1844
Carmel, Mother M. Regina, 1457
Carr, Edward A., Jr., 927, 1077
Carrington, Kenneth W., 373
Cartmill, George E., Jr., 960
Chapin, Sidney E., 1463
Chapman, Paul T., 1832
Clifford, Mary E., 1816
Cole, James E., 81
Coller, Frederick A., 363
Corneliuson, Goldie B., 1254
Corrigan, Kenneth E., 598
Croushore, James E., 235
Culp, Ormond S., 585
Curth, Helen O., 572

Davey, Winthrop N., 1266, 1816
Delaney, J. R., 1259
Denise, Malcolm L., 955

Elliot, A. J., 2002
Ellis, M. E., 1667
Engelke, Otto K., 1266
English, David C., 205
Evans, D. M., 415

Falls, Harold F., 412
Ferguson, Lynn A., 1842
Fernandez, Manuel, 1270
Ferrara, R. J., 1259
Field, E. Malcolm, 1262
Fisher, George S., 1437
Frankfurter, Felix, 764
French, Arthur B., 776
Furstenberg, Nancy E., 1816

Gerein, Alfred N., 212
Gittins, P. C., 1466
Gollan, Frank, 53
Green, Ralph S., 1474
Griffin, Robert, 84
Grigaut, Paul L., 763

Hamburger, Stuart W., 1835
Hammer, J. M., 1289
Hance, Darwood B., 1623
Hartzell, John B., 223
Hayden, Henrietta S., 598
Heldt, Thomas J., 216
Henry, L. Dell, 397
Heustis, Albert E., 1608
Hill, E. J., 1289
Hinerman, Dorin L., 620
Hirschfeld, Alexander H., 1447
Hodgson, Paul, 389
Hoegh, Leo A., 1605
Holt, John F., 1266
Horvath, James J., 220
Hubbard, W. B., 924

Isbister, John L., 1801

Johnson, Aran S., 84
Johnston, R. L., 1289
Johnstone, Kermit T., 92

Kempter, Albert H., 1805

Lamberts, Austin E., 95
Lapides, Jack, 384
Latourette, Howard B., 563
Laudeutscher, Irving D., 1619
Leider, Morris, 595
Lichter, Max, 963
Lichtwardt, Harry E., 97
Lofstrom, James E., 568, 1623
Lowrey, George H., 927, 1077, 1276

McKinnon, Archie, 1489
McLean, James A., 397
Mainwaring, Rosser L., 1628
Manning, John W., III, 1262
Marshak, Richard H., 778
Mead, Richard H., 1791
Meyer, John S., 1477
Meyers, M. C., 614
Molner, Joseph G., 1285
Moore, George, 1639
Mopper, Coleman, 1135
Mota, Carlos, 223
Muldoon, James P., 1842

Nafrawi, A. G., 1823
Nesbit, Reed M., 384
Nichamin, Samuel J., 1485
Northway, Robert O., 1262

Oliver, James T., 1285
Orten, Aline Underhill, 767

Palmer, Alice E., 1455
Parks, John, 919
Payne, B. C., 377
Pearce, H. G., 967
Petersen, Eugene T., 766
Pinkus, Hermann, 576
Pollack, Jerome, 950
Ponka, J. L., 415
Posch, Joseph L., 212
Price, A. Hazen, 1453
Priest, Robert J., 783
Prust, F., 1289

Raman, Govind, 927, 1077
Randall, Clyde L., 86
Rappleye, Willard C., 793
Rasmussen, Richard A., 1791

Robarge, I., 1259
Rodger, John R., 1445
Rogin, James R., 1135
Ross, C. Howard, 1439, 2013

Sandweiss, David J., 772, 791
Scheele, Leonard A., 197
Schmale, H. T., 939
Schwimmer, Benjamin, 1477
Seay, P. H., 1289
Segar, Laurence F., 1442
Sellers, Charles, 1433
Sheehan, Ralph M., 1650
Sheldon, John M., 397
Shields, H. L., 415
Shipman, Thomas L., 608
Sinnott, Richard A., Jr., 363
Sites, James G., 919
Smith, Roger F., 77
Sower, Christopher, 1028
Spafford, Norma R., 1077
Spencer, H. H., 614
Sphire, Raymond D., 1272
Sprague, Randall G., 1653
Stiller, Anthony F., 1796
Stringer, C. J., 1823
Suedkamp, Rev. W. F., 1464
Swanson, Robert D., 342
Swartz, Frederick C., 1468
Szilagyi, D. Emerick, 77

Thompson, Hugh O., 1838
Tipton, John Burke, 1096

Umiker, William, 389

VandenBerg, Henry J., 2026

Wade, Preston A., 1128
Watson, Ernest H., 1247
Weller, John M., 620
Westlund, Norman, 1489
Weyher, Russell F., 2007
White, Paul Dudley, 1451
Whitehouse, Walter M., 1266
Whittaker, Alfred H., 735, 742, 751, 761
Williams, Charles R., 568
Wu, Jack Foy, 1807
Wylie, John H., 216

Yaw, Ronald, 1647
Yonkman, Frederick F., 913
Young, Millington O., 1662

CONTRIBUTED PAPERS

A

Absorption of amino acids from an isolated loop of human intestines. Aline Underhill Orten, Ph.D., 767

Absorption tests in the diagnosis of intestinal malabsorption. Arthur B. French, M.D., 776

Abuse of single whole blood transfusions. William Umiker, M.D., and Paul Hodgson, M.D., 389

Accident-prone worker, Injury reduction by identification of the. Kermit T. Johnstone, M.D., 92

Acne, Estrogen therapy of. Coleman Mopper, M.D., and James R. Rogin, M.D., 1135

Acne vulgaris, Treatment of, with polythionates incorporated in a vanishing cream vehicle. J. R. Delaney, M.D., R. J. Ferrara, M.D., and I. Robarge, M.D., 1259

Acute appendicitis. J. L. Ponka, M.D., H. L. Shields, M.D., and D. M. Evans, M.D., 314

Adjunctive use of meclizine-pyridozine (Bonadoxin) in the prevention of preoperative and postoperative nausea and emesis. M. D. Bentley, M.D., 1483

Adoption of children. Ernest H. Watson, M.D., 1247

Advances in knowledge of the physiology of wound healing. John B. Hartzell, M.D., and Carlos Mota, M.D. 223

Advances in the treatment of leukemia. F. H. Bethell M.D., M. C. Meyers, M.D., R. C. Bishop, M.D., and H. H. Spencer, M.D., 614

Aging, Atherosclerosis in. George S. Fisher, M.D., 143

Aging, Diabetes and. Laurence F. Segar, M.D., 1442

Aging, Driving and. John R. Rodger, M.D., 1445

Aging, Exercise in. Paul Dudley White, M.D., 1451

Aging, Medicine's responsibility to the. A. Hazen Price M.D., 1453

Aging, Problems of. Charles Sellers, M.D., 1433

Aging process, Metabolic aspects of the. John Burke Tipton, M.D., 1096

Aging, The problem of cancer in. C. Howard Ross M.D., 1439

Aging, The skin in. Alice E. Palmer, M.D., 1455

Aging, Treatment of emotional problems in the. Alexander H. Hirschfeld, M.D., 1447

Amino acids, Absorption of, from an isolated loop o human intestines. Aline Underhill Orten, Ph.D., 76

Anesthesia, Endotracheal, in pediatric plastic surgery Raymond D. Sphire, M.D., 1273

Anesthetized children, Effect of operative procedure o gastric acidity of. Manuel Fernandez, M.D., 1270

Aneurysms of the popliteal space. James E. Cole, M.D. F.A.C.S., 81

Antiperistaltic gut segments, Effect of, on intestina emptying time. J. M. Hammer, M.D., P. H. Seay Ph.D., R. L. Johnston, D.V.M., E. J. Hill, M.D. F. Prust, M.D., and R. Campbell, M.D., 1289

Appendicitis, Acute. J. L. Ponka. M.D., H. L. Shields M.D., and D. M. Evans, M.D., 415

Arm, swollen, Management of the, following mastec tomy. Brock E. Brush, M.D., John H. Wylie, M.D. Joseph Beninson, M.D., Melvin A. Block, M.D., and Thomas J. Heldt, M.D., 216

Army uniform of 1822. Alfred H. Whittaker, M.D. 761

Arterial substitutes, The present status of. Roger F Smith, M.D., and D. Emerick Szilagyi, M.D., 77

Artery, Bilateral, internal mammary, ligation in cor onary artery disease. Aran S. Johnson, M.D., F.A.C.S. and Robert Griffin, M.D., 84

Asthma, An evaluation of medications commonly use in. John M. Sheldon, M.D., L. Dell Henry, M.D. and James A. McLean, M.D., 397

Atherosclerosis in aging. George S. Fisher, M.D., 143

Atherosclerosis versus inherited "iron and copper pipes." Henry J. VandenBerg, M.D., 2026

B

Beaumont interest, Bibliographic notes of, 754

Beaumont interest, Centers of. Alfred H. Whittaker M.D., 742

Beaumont Memorial Foundation, The. Otto O. Beck M.D., 736

Beaumont Memorial, The furnishings of the. Paul I Grigaut, 763

Beaumont, Observations of some physiologists who pre ceded. Alfred H. Whittaker, M.D., 751

Beaumont, William, and his contribution to medicine. Alfred H. Whittaker, M.D., 735

Bibliographic notes of Beaumont interest, 754

Bilateral internal mammary artery ligation in coronary artery disease. Aran S. Johnson, M.D., F.A.C.S., and Robert Griffin, M.D., 84

Blindness, partial, A close look at. R. T. Blackhurst, M.D., 1279

Brief medical notes on nuclear warfare. Charles F. Behrens (MC) USN (ret.), 1615

Bromism, a menace. Russell F. Weyher, M.D., 2007

C

Cancer in aging, The problem of. C. Howard Ross, M.D., 1439

Cancer, lung, and fungous disease, Tuberculosis coexistent with. Albert H. Kempter, M.D., 1805

Cancer, Lung, detected by mass chest x-ray survey. Charles R. Williams, M.D., and James E. Lofstrom, M.D., 568

Cancer research at the University of Michigan. Howard B. Latourette, M.D., 563

Cancer research at Wayne State University College of Medicine. Howard B. Latourette, M.D., 566

Cancer, skin, Therapy of, in the light of newer histobiologic concepts. Hermann Pinkus, M.D., 576

Can you answer your patients' questions about radiation? Thomas L. Shipman, M.D., 608

Cardiac surgery, Physiology of. Frank Gollan, M.D., 53

Care of the preschool child's eyes. Harold F. Falls, M.D., 412

Carmel Hall. Mother M. Regina Carmel, 1457

Case for medicine to the people, The. M. E. Ellis, M.D., 1667

Cause of death classification, Revision of, for neonatal deaths. Joseph G. Molner, M.D., James T. Oliver and Charles P. Anderson, M.D., 1285

Centers of Beaumont interest. Alfred H. Whittaker, M.D., 742

Chapel, A 17th Century, for Mackinac Island. Eugene T. Petersen, 766

Children, Adoption of. Ernest H. Watson, M.D., 1247

Children, anesthetized, Effect of operative procedure on gastric acidity of. Manuel Fernandez, M.D., 1270

Chylothorax. Jack Foy Wu, M.D., 1807

Civil defense and you. Ralph M. Sheehan, 1650

Civil defense role of the hospital, The. Ronald Yaw, F.A.C.H.A., 1647

Close look at partial blindness, A. R. T. Blackhurst, M.D., 1279

Colon surgery, Intestinal obstruction after. Meyer O. Cantor, M.D., F.A.C.S., 1844

Community responsibility, peripheral, Regional organization and planning and. Albert E. Heustis, M.D., M.P.H., 1608

Comparison of sanitariums and psychiatric units in general hospitals, A. Ralph S. Green, M.D., 1474

Congenital hypothyroidism. William H. Beierwaltes, M.D., George H. Lowrey, M.D., Richard A. Aster, M.D., Govind Raman, M.B., B.S., and Edward A. Carr, Jr., M.D., 927

Coronary artery disease, Bilateral internal mammary artery ligation in. Aran S. Johnson, M.D., F.A.C.S., and Robert Griffin, M.D., 84

Cretins, Institutionalized, in the State of Michigan. William H. Beierwaltes, M.D., Edward A. Carr, Jr., M.D., Govind Raman, M.B., B.S., Norma R. Spafford, A.B., Richard A. Aster, M.D., and George H. Lowrey, M.D., 1077

Cytologic screening of healthy women in the smaller community. J. H. Ahronheim, M.D., 611

D

Dermatology, "Yesterday's hopeless—now curable" in. Morris Leider, M.D., 595

Dermatoses and malignant internal tumors. Helen O. Curth, M.D., 572

Diabetes and aging. Laurence F. Segar, M.D., 1442

Diabetic acidosis, Physiologic principles in the treatment of. Randall G. Sprague, M.D., 1653

Diagnostic problems and procedures in pulmonary disease. A. G. Nafrawi, M.D., and C. J. Stringer, M.D., 1823

Diarrhea, The malabsorption syndrome and. A panel discussion. Introduction. David J. Sandweiss, M.D., 772

Diarrhea, The malabsorption syndrome and. A panel discussion. Summary of panel. David J. Sandweiss, M.D., 791

Digestive tract, Functional disorders of the. H. L. Bockus, M.D., 1990

Disc surgery, intervertebral, The present status of. Alexander T. Aitken, M.D., F.A.C.S., 1121

Diverticulitis, Experience with, over a ten-year period. B. C. Payne, M.D., and James Beatty, M.D., 377

Driving and aging. John R. Rodger, M.D., 1445

Drugs, New, for old uses, and new uses for old drugs. Frederick F. Yonkman, M.D., 913

Dust exposure, Wheezing in young infants associated with. Samuel J. Nichamin, M.D., 1485

Dynamics of geriatrics, The. C. Howard Ross, M.D., 2013

E

Ear infections, chronic, Tympanoplastic procedures for. James E. Croushore, M.D., 235

Education, Medical, at the University of Michigan. Dorin L. Hinerman, M.D., H. Waldo Bird, M.D., and John M. Weller, M.D., 620

Effect of antiperistaltic gut segments on intestinal emptying time. J. M. Hammer, M.D., P. H. Seay, Ph.D., R. L. Johnston, D.V.M., E. J. Hill, M.D., F. Prust, M.D., and R. Campbell, M.D., 1289

Effect of operative procedure on gastric acidity of anesthetized children. Manuel Fernandez, M.D., 1270

Emergency child birth, 1652

Emergency hospitals and medical supplies, federal, A report on. George Moore, M.D., 1639

Emergency, national, Your medical role in. Leo A. Hoegh, 1605

Emotional problems in the aging, Treatment of. Alexander H. Hirschfeld, M.D., 1447

Endotracheal anesthesia in pediatric plastic surgery. Raymond D. Sphire, M.D., 1273

Estrogen therapy of acne. Coleman Mopper, M.D., and James R. Rogin, M.D., 1135

Evaluation of medications commonly used in asthma, An. John M. Sheldon, M.D., L. Dell Henry, M.D., and James A. McLean, M.D., 397

Exercise in aging. Paul Dudley White, M.D., 1451

Experience with diverticulitis over a ten-year period. B. C. Payne, M.D., and James Beatty, M.D., 377

Experiences of the University of Michigan Poison Information and Therapy Center during the year 1958. George H. Lowrey, M.D., 1276

Eyes, preschool child's, Care of the. Harold F. Falls, M.D., 412

F

Fetal and neonatal mortality and morbidity, Reduction of. Goldie B. Corneliuson, M.D., 1254

Femur, Fractures of the. Preston A. Wade, M.D., 1128

Foreign bodies of the hand. Alfred N. Gerein, M.D., and Joseph L. Posch, M.D., 212

Fractures in children. James J. Horvath, M.D., 220

Fractures of the femur. Preston A. Wade, M.D., 1128

Functional disorders of the digestive tract. H. L. Bockus, M.D., 1990

Fungous disease, Tuberculosis coexistent with lung cancer and. Albert H. Kempter, M.D., 1805

Furnishings of the Beaumont Memorial, The. Paul L. Grigaut, 763

G

Gastric acidity of anesthetized children, Effect of operative procedure on. Manuel Fernandez, M.D., 1270

Geriatric age, Medical education in this. Frederick C. Swartz, M.D., 1468

Geriatric patient, Home care for the chronically ill. Sidney E. Chapin, M.D., 1463

Geriatrics, The dynamics of. C. Howard Ross, M.D., 2013

Granulomas of the lung. Richard A. Rasmussen, M.D., Richard H. Mead, M.D., and Clair E. Basinger, M.D., 1791

Gynecology, Psychologic factors in. H. T. Schmale, M.D., 939

H

Hand, Foreign bodies of the. Alfred N. Gerein, M.D., and Joseph L. Posch, M.D., 212

Hand, Traumatic aneurysms of the. Stuart W. Hamburger, M.D., 1835

Health, the nation's, and health problems, The state of the. Leonard A. Scheele, M.D., 197

Hippocrates and more! Robert D. Swanson, D.D., 342

Histoplasmin-positive school children, Roentgen findings in. Walter M. Whitehouse, M.D., Winthrop N. Davey, M.D., Otto K. Engelke, M.D., and John F. Holt, M.D., 1266

Histoplasmosis in Michigan. Winthrop N. Davey, M.D., Mary E. Clifford, M.D., and Nancy E. Furstenberg, M.D., 1816

Home care for the chronically ill geriatric patient. Sidney E. Chapin, M.D., 1463

Hospital trustees, Responsibility of, in the future. Willard C. Rappleye, M.D., 793

Hydrocephalus, treatment of, Ventriculo-venous shunt using the Holder valve as a. Kenneth W. Carrington, M.D., 373

Hypothyroidism, Congenital. William H. Beierwaltes, M.D., George H. Lowrey, M.D., Richard A. Aster, M.D., Govind Raman, M.B., B.S., and Edward A. Carr, Jr., M.D., 927

I

Industry's skill and mankind's benefit. Francis C. Brown, 229

Infertility, Investigation and treatment of. Clyde L. Randall, M.D., and Paul K. Birtch, M.D., 86

Injury reduction by identification of the accident-prone worker. Kermit T. Johnstone, M.D., 92

Institutionalized cretins in the State of Michigan. William H. Beierwaltes, M.D., Edward A. Carr, Jr., M.D., Govind Raman, M.B., B.S., Norma R. Spafford, A.B., Richard A. Aster, M.D., and George H. Lowrey, M.D., 1077

Intervertebral disc surgery, The present status of. Alexander T. Aitken, M.D., F.A.C.S., 1121

Intestinal emptying time, Effect of antiperistaltic gut segments on. J. M. Hammer, M.D., P. H. Seay, Ph.D., R. L. Johnston, D.V.M., E. J. Hill, M.D., F. Prust, M.D., and R. Campbell, M.D., 1289

Intestinal obstruction after colon surgery. Meyer O. Cantor, M.D., F.A.C.S., 1844

Intestines, human, Absorption of amino acids from an isolated loop of. Aline Underhill Orten, Ph.D., 767

Investigation and treatment of infertility. Clyde L. Randall, M.D., and Paul K. Birtch, M.D., 86

"Iron and copper pipes," inherited, Atherosclerosis versus. Henry J. VandenBerg, M.D., 2026

K

Kundig Center. Rev. W. F. Suedkamp, 1464

L

Lawyer's dicta on doctors, A. Felix Frankfurter, 764

Learning to live in the community. Christopher Sower, Ph.D., 2028

Lesions of the macula and perimacular region of involutional and senile origin. A. J. Elliot, M.D., 2002

Leukemia, Advances in the treatment of. F. H. Bethell, M.D., M. C. Meyers, M.D., R. C. Bishop, M.D., and H. H. Spencer, M.D., 614

Live, Learning to, in the community. Christopher Sower, Ph.D., 2028

Lung cancer and fungous disease, Tuberculosis coexistent with. Albert H. Kempter, M.D., 1805

Lung cancer detected by mass chest x-ray survey. Charles R. Williams, M.D., and James E. Lofstrom, M.D., 568

Lung, Granulomas of the. Richard A. Rasmussen, M.D., Richard H. Mead, M.D., and Clair E. Basinger, M.D., 1791

M

Macula and perimacular region, Lesions of the, of involutional and senile origin. A. J. Elliot, M.D., 2002

Malabsorption, intestinal, Absorption tests in the diagnosis of. Arthur B. French, M.D., 776

Malabsorption, Primary. Henry L. Bockus, M.D., 78

Malabsorption, primary, Therapy of. Robert J. Priest, M.D., 783

Malabsorption syndrome and diarrhea, The. A panel discussion. Introduction. David J. Sandweiss, M.D., 722

Malabsorption syndrome and diarrhea, The. A panel discussion. Summary of panel. David J. Sandweiss, M.D., 791

Malabsorption syndrome and diarrhea, The. Questions and answers in discussion, 786

Malabsorption syndrome, primary, Pathogenesis of. David Adlersberg, M.D., 773

Malabsorption syndrome, The roentgen findings in the. Richard H. Marshak, M.D., 778

Malignant internal tumors, Dermatoses and. Helen O. Curth, M.D., 572

Management of acute toxemia of pregnancy. John Parks, M.D., and James G. Sites, M.D., 919

Management of massive radiation injuries, The. James E. Lofstrom, M.D., and Darwood B. Hance, M.D., 1623

Management of the swollen arm following mastectomy. Brock E. Brush, M.D., John H. Wylie, M.D., Joseph Beninson, M.D., Melvin A. Block, M.D., and Thomas J. Heldt, M.D., 216

Marsilid and pacatal in the treatment of depressive schizophrenic reactions. David C. English, M.S., M.D., 205

Mastectomy, Management of the swollen arm following. Brock E. Brush, M.D., John H. Wylie, M.D., Joseph Beninson, M.D., Melvin A. Block, M.D., and Thomas J. Heldt, M.D., 216

Meclizine-pyridoxine (Bonadoxin), adjunctive use of, in the prevention of preoperative and postoperative nausea and emesis. M. D. Bentley, M.D., 1483

Medical education at the University of Michigan. Dorin L. Hinerman, M.D., H. Waldo Bird, M.D., and John M. Weller, M.D., 620

Medical education in this geriatric age. Frederick C. Swartz, M.D., 1468

Medicine to the people, The case for. M. E. Ellis, M.D., 1667

Medicine's responsibility to the aging. A. Hazen Price, M.D., 1453

Megacolon. James P. Muldoon, M.D., and Lynn A. Ferguson, M.D., 1842

Metabolic aspects of the aging process. John Burke Tipton, M.D., 1096

Micturition, The physiology of. Reed M. Nesbit, M.D., and Jack Lapides, M.D., 384

N

Nation's health and health problems, The state of the. Leonard A. Scheele, M.D., 197

Nausea and emesis, preoperative and postoperative, Adjunctive use of meclizine-pyridoxine (Bonadoxin) in the prevention of. M. D. Bentley, M.D., 1483

Neonatal deaths, Revision of cause of death classification for. Joseph G. Molner, M.D., James T. Oliver and Charles P. Anderson, M.D., 1285

Neurosyphilis, Present status of, in a large city hospital. D. W. Barron, M.D., John S. Meyer, M.D., and Benjamin Schwimmer, M.D., 1477

Newborn, Perforation of the stomach in the. E. Malcolm Field, M.D., Robert O. Northway, M.D., and John W. Manning, III, M.D., 1262

New drugs for old uses and new uses for old drugs. Frederick F. Yonkman, M.D., 913

Nodules, prostatic, Significance and treatment of. Ormond S. Culp, M.D., 585

Non-target area counties, The public health problem in. Charles P. Anderson, M.D., 1612

Nuclear radiation casualty management, Problems in. Irving D. Laudeutscher, M.D., 1619

Nuclear warfare, Brief medical notes on. Charles F. Behrens (MC) USN (ret.), 1615

O

Observations of some physiologists who preceded Beaumont. Alfred H. Whittaker, M.D., 751

Office accessories, Operative and. W. B. Hubbard, M.D., 924

Operative and office accessories. W. B. Hubbard, M.D., 924

P

Pathogenesis of primary malabsorption syndrome. David Adlersberg, M.D., 773

Pediatric plastic surgery, Endotracheal anesthesia in. Raymond D. Sphire, M.D., 1273

Perforation of the stomach in the newborn. E. Malcolm Field, M.D., Robert O. Northway, M.D., and John W. Manning, III, M.D., 1262

Phobia, School. Norman Westlund, M.D., and Archie McKinnon, M.A., 1489

Physiologic principles in the treatment of diabetic acidosis. Randall G. Sprague, M.D., 1653

Physiology of cardiac surgery. Frank Gollan, M.D., 53

Physiology of micturition, The. Reed M. Nesbit, M.D., and Jack Lapides, M.D., 384

Plastic surgery, pediatric, Endotracheal anesthesia in. Raymond D. Sphire, M.D., 1273

Poison Information and Therapy Center, University of Michigan, Experiences of the, during the year 1958. George H. Lowrey, M.D., 1276

Popliteal space, Aneurysms of the. James E. Cole, M.D., F.A.C.S., 81

Postgastrectomy symptoms, Prevention and management of. Millington O. Young, M.D., F.A.C.S., 1662

Pregnancy, Management of acute toxemia of. John Parks, M.D., and James G. Sites, M.D., 919

Presbyterian Village, The. P. C. Gittins, M.D., and Elmer L. Bringard, M.D., 1466

Present status of arterial substitutes, The. Roger F. Smith, M.D., and D. Emerick Szilagyi, M.D., 77

Present status of intervertebral disc surgery. Alexander T. Aitken, M.D., F.A.C.S., 1121

Present status of neurosyphilis in a large city hospital. D. W. Barron, M.D., John S. Meyer, M.D., and Benjamin Schwimmer, M.D., 1477

Prevention and management of postgastrectomy symptoms. Millington O. Young, M.D., F.A.C.S., 1662

Primary malabsorption. Henry L. Bockus, M.D., 781

Problem of cancer in aging, The. C. Howard Ross, M.D., 1439

Problem of excess tuberculosis beds in Michigan, The. Paul T. Chapman, M.D., 1832

Problems in nuclear radiation casualty management. Irving D. Laudeutscher, M.D., 1619

Problems of aging. Charles Sellers, M.D., 1433

Prostatic nodules, Significance and treatment of. Ormond S. Culp, M.D., 585

Psychiatric units in general hospitals, A comparison of sanitariums and. Ralph S. Green, M.D., 1474

Psychiatry, Putting, back into medicine. Frank J. Ayd, Jr., M.D., 1987

Psychologic factors in gynecology. H. T. Schmale, M.D., 939

Public health problem in non-target area counties, The. Charles P. Anderson, M.D., 1612

Pulmonary disease, Diagnostic problems and procedures in. A. G. Nafrawi, M.D., and C. J. Stringer, M. D., 1823

Putting psychiatry back into medicine. Frank J. Ayd, Jr., M.D., 1987

R

Radiation, Can you answer your patients' questions about? Thomas L. Shipman, M.D., 608

Radiation injuries, massive, The management of. James E. Lofstrom, M.D., and Darwood B. Hance, M.D., 1623

Radioisotopes, Some applications of, in clinical medicine. F. Ross Birkhill, M.D., and Rosser L. Mainwaring, M.D., 1629

Radioisotopes, Uses of, in industry. Richard Abowd, Jr., 1633

Recognition and correction of water and salt deficits in surgical patients, The. Robert E. L. Berry, M.D., 403

Reconstructive operation for urethral stricture. Harry E. Lichtwardt, M.D., F.A.C.S., 97

Reduction of fetal and neonatal mortality and morbidity. Goldie B. Corneliuson, M.D., 1254

Regional organization and planning and peripheral community responsibility. Albert E. Heustis, M. D., M.P.H., 1608

Report on federal emergency hospitals and medical supplies, A. George Moore, M.D., 1639

Responsibility of hospital trustees in the future. Willard C. Rappleye, M.D., 793

Revision of cause of death classification for neonatal deaths. Joseph G. Molner, M.D., James T. Oliver and Charles P. Anderson, M.D., 1285

Roentgen findings in histoplasmin-positive school children. Walter M. Whitehouse, M.D., Winthrop N. Davey, M.D., Otto K. Engelke, M.D., and John F. Holt, M.D., 1266

Roentgen findings in the malabsorption syndrome, The. Richard H. Marshak, M.D., 778

S

St. Martin, Alexis. Edward H. Bensley, M.D., 738

Salt deficits, water and, in surgical patients, The recognition and correction of. Robert E. L. Berry, M.D., 403

Sanitariums and psychiatric units in general hospitals, A comparison of. Ralph S. Green, M.D., 1474

Schizophrenic reactions, depressive, Marsilid and pacatal in the treatment of. David C. English, M.S., M.D., 205

School phobia. Norman Westlund, M.D., and Archie McKinnon, M.A., 1489

Scintillation counters, Surgical probe. Kenneth E. Corrigan, Ph.D., and Henrietta S. Hayden, Ph.D., 598

Screening, Cytologic, of healthy women in the smaller community. J. H. Ahronheim, M.D., 611

Seromycin, Treatment of pulmonary tuberculosis with. Anthony F. Stiller, M.D., and Winona Barrows, M.D., 1796

Significance and treatment of prostatic nodules. Ormond S. Culp, M.D., 585

Skin cancer, Therapy of, in the light of newer histobiologic concepts. Hermann Pinkus, M.D., 576

Skin in aging, The. Alice E. Palmer, M.D., 1455

Some applications of radioisotopes in clinical medicine. F. Ross Birkhill, M.D., and Rosser L. Mainwaring, M.D., 1628

State of the nation's health and health problems, The. Leonard A. Scheele, M.D., 197

Stomach, Perforation of the, in the newborn. E. Malcolm Field, M.D., Robert O. Northway, M.D., and John W. Manning, III, M.D., 1262

Stricture, urethral, Reconstructive operation for. Harry E. Lichtwardt, M.D., F.A.C.S., 97

Surgery, cardiac, Physiology of. Frank Gollan, M.D., 53

Surgical probe scintillation counters. Kenneth E. Corrigan, Ph.D., and Henrietta S. Hayden, Ph.D., 598

T

Therapy of primary malabsorption. Robert J. Priest, M.D., 783

Therapy of skin cancer in the light of newer histobiologic concepts. Hermann Pinkus, M.D., 576

Tic douloureux. Austin E. Lamberts, M.D., 95

"Tired" patient, The. Hugh O. Thompson, M.D., 1831

Toxemia, acute, of pregnancy, Management of. John Parks, M.D., and James G. Sites, M.D., 919

Transfusions, single whole blood, Abuse of. William Umiker, M.D., and Paul Hodgson, M.D., 389

Traumatic aneurysms of the hand. Stuart W. Hamburger, M.D., 1835

Treatment of emotional problems in the aging. Alexander H. Hirschfeld, M.D., 1447

Treatment of acne vulgaris with polythionates incorporated in a vanishing cream vehicle. J. R. Delaney, M.D., R. J. Ferrara, M.D., and I. Robarge, M.D., 1259

Treatment of pulmonary tuberculosis with seromycin. Anthony F. Stiller, M.D., and Winona Barrows, M.D., 1796

Tuberculin sensitivity in Michigan children. John L. Isbister, M.D., 1801

Tuberculosis beds, excess, The problem of, in Michigan. Paul T. Chapman, M.D., 1832

Tuberculosis coexistent with lung cancer and fungous disease. Albert H. Kempter, M.D., 1805

Tuberculosis, pulmonary, Treatment of, with seromycin. Anthony F. Stiller, M.D., and Winona Barrows, M.D., 1796

Tumors, malignant internal, Dermatoses and. Helen C. Curth, M.D., 572

Tympanoplastic procedures for chronic ear infection. James E. Croushore, M.D., 235

U

University of Michigan Poison Information and Therapy Center, Experiences of the, during the year 1958. George H. Lowrey, M.D., 1276

Urethral stricture, Reconstructive operation for. Harry E. Lichtwardt, M.D., F.A.C.S., 97

Uses of radioisotopes in industry. Richard Abowd, Jr., 1633

V

Ventriculo-venous shunt using the Holter valve as a treatment of hydrocephalus. Kenneth W. Carrington, M.D., 373

W

Washtenaw County Medical Society. Frederick A. Coller, M.D., and Richard A. Sinnott, Jr., M.D., 363

Water and salt deficits in surgical patients, The recognition and correction of. Robert E. L. Berry, M.D., 403

Wheezing in young infants associated with dust exposure. Samuel J. Nichamin, M.D., 1485

Wound healing, Advances in knowledge of the physiology of. John B. Hartzell, M.D., and Carlos Mota, M.D., 223

Y

"Yesterday's hopeless—now curable" in dermatology. Morris Leider, M.D., 595

Your medical role in national emergency. Leo A. Hoegh, 1605

AMERICAN ACADEMY OF MEDICINE

Clinicopathologic study of one hundred cases of carcinoma of the thyroid, A. Charles J. France, M.D., 1141

Contrast material dissection of the aortic wall in direct aortography. Earl F. Wolfman, Jr., M.D., and D. E. Boblitt, M.D., 1141

Rationale for neck dissections in the treatment of carcinoma of the thyroid, The. Melvin A. Block, M.D., F.A.C.S., J. Martin Miller, M.D., and Brock E. Brush, M.D., 1140

Spontaneous perforation of the bowel in the newborn. Kirk V. Cammack, M.D., Albert Masksood, M.D., Max Dodds, M.D., and Hardie B. Elliott, M.D., 1140

Study of the abuse of antibiotics in elective herniorrhaphies, A. Luther C. Carpenter, M.D., 1140

AMERICAN MEDICAL ASSOCIATION

Actions of the House of Delegates, Twelfth Clinical Meeting, 104

Report of Actions at 108th Annual Meeting, 1330

The month in Washington, 46, 186, 350, 546, 898, 1060, 1241, 1388, 1596, 1970

BLUE CROSS-BLUE SHIELD

Blue Shield national conference, 508

CANCER COMMENT

Cancer in Calhoun County, 516

Care of the cancer patient, 1238

Colon carcinoma, 1938

Control of uterine cancer, 184

Importance of the sigmoidoscopic examination, The, 886

Quackery exhibit, 1066

What is the MCCC? 1938

COMMUNICATIONS

Carnes, H. E. (appreciation for September issue), 1952

Child, Charles G. (grand rounds at University Hospital), 1874

Ellis, Michael E. (MMS), 454

Koontz, Amos R. (veterans medical care), 1510

Rodger, John R.: Drivers, not cars (car accidents), 144

Taylor, Ross V. (Michigan relative value scale), 1336

Wergeland, Floyd L. (delay in Medicare billings), 844

Wiley, D. Bruce (Council of MSMS): Quarterly report of The Council, 289

Woodfill, W. S. (appreciation of Beaumont Memorial issue), 1336

DETROIT SURGICAL ASSOCIATION

Meeting of September 25, 1958, 623

Meeting of October 28, 1958, 623

Meeting of November 25, 1958, 624

* * *

Congenital arterio-venous communication as a posterior mediastinal tumor. Atalay M. Murguz, M.D., James A. Cole, M.D., and Kenneth A. Wood, M.D., 624

Early diagnosis and treatment of corrosive burns of the esophagus. Eugene L. Yurich, M.D., 624

Effect of dietary choline on biliary phospholipids excretion. Fumio Nakayama, M.D., and Charles G. Johnston, M.D., 623

Effect of operative procedure on the gastric acidity of anesthetized children. Manuel Fernandez, M.D., 1291

Experience with the Hufnagel valve. Lyle Jacobson, M.D., James Wible, M.D., and Prescott Jordan, M.D., 623

Experimental studies with low oxygen flow rates in the bubble oxygenator. Luis A. Tomatis, M.D., Rodman E. Taber, M.D., F.A.C.S., Conrad R. Lam, M.D., F.A.C.S., and Edward W. Green, M.D., 1290

Methylene blue as a diagnostic agent in the study of myocardial metabolism. Alexander Zuckerbraun, Ph.D., M.D., L. Moggi, M.D., Prescott Jordan, M.D., and Lyle Jacobson, M.D., 1290

New category of contrast media, A.: water-soluble, radiopaque, polyvalent metallic chelates. Robert M. Nalbandian, M.D., William T. Rice, M.D., Warren O. Nickel, M.D., and Charles G. Johnston, M.D., 623

Operative cholangiography. Alfred N. Gerein, M.D., and Alfred M. Large, M.D., 1291

Prognosis in carcinoma of the thyroid; A clinicopathologic study of one hundred cases. Charles Koucky, M.D., Klaus Hergt, M.D., O. A. Brines, M.D., and C. J. France, M.D., 1290

Transventricular approach to aortic stenosis with a method for controlling the aortic pressure. Morris Asa, M.D., and James B. Blodgett, M.D., 1291

THE DOCTOR'S LIBRARY

Ackerman, Lauren V., with Butcher, Harvey R., Jr.: Surgical pathology, 1011

Armstrong, J. E.: Lumbar disc lesions, 291

Bechtol, Charles Orville, et al: Metals and engineering in bone and joint surgery, 1721

Behrman, Maude (edited by Leonard Louis Levinson): A cookbook for diabetics, 1920

Blanton, Smiley: Now or never, 1533

Bleyer, Adrien: Childbearing before and after thirty-five, 1010

Borrie, John: The management of emergencies in thoracic surgery, 140

Canfield, Norton: Hearing, a handbook for laymen, 1361

Carter, Richard: The doctor business, 663

Cowdry, E. V. (editor): The care of the geriatric patient, 293

Croxton, Frederick E.: Elementary statistics with applications in medicine and the biological sciences, 1916

Dalsace, Jean, and Garcia-Calderon, J.: Gynecologic radiography, 662

DeJong, Russell N.: The neurologic examination, 142

DePalma, Anthony F.: Clinical orthopaedics, 846

DePalma, Anthony F.: Clinical orthopaedics of the hand, 1534

DuVries, Henri L.: Surgery of the foot, 1723

Edmunds, Vincent, and Scorer, C. Gordon (editors): Ideals in medicine, 292

Epstein, Bernard S.: Clinical radiology of acute abdominal disorders, 292

Field, John B., (editor, with twenty-eight contributors): Cancer diagnosis and treatment, 1010

Fishbein, Morris, (editor): The modern family health guide, 1921

Flatt, Adrian E.: The care of minor hand injuries, 1722

Fream, William C.: Aids to arithmetic in nursing, 1922

Gofman, John W.: What we do know about heart attacks, 1010

Goodrich, Frederick W., Jr.: Maternity: a guide to prospective motherhood, 1011

Gray, Henry: Anatomy of the human body, 1921

Gurdjian, E. S., and Webster, J. E.: Mechanisms, diagnosis and management head injuries, 140

Hardy, James D.: Pathophysiology in surgery, 138

Harvie, Fred H., (editor): Pediatric methods and standards, Department of Pediatrics, School of Medicine, University of Pennsylvania, 143

Heardman, Helen: Physiotherapy in obstetrics and gynecology (revised by Maria Egner), 1533

Hodgkinson, C. Paul and Brewer, John J. (editors): Clinical obstetrics and gynecology. Volume 1, No. 3: Symposium on special diagnostic aids, (CPH); Symposium on abnormal uterine bleeding, (JJB), 485

Hollinshead, W. Henry: Anatomy for surgeons; Volume 3, The back and limbs, 845, 1362

Hoobler, Sibley W.: Hypertensive disease, diagnosis and treatment, 1917

Hyman, Harold Thomas: Treatment in internal medicine, 662

Jackman, Raymond J.: Lesions of the lower bowel, 487

Jasper, Herbert H., et al, editors: Henry Ford Hospital International Symposium—Reticular formation of the brain, 136

Joslin, Elliott P.: Diabetic manual, 1918

Kelly, G. Lombard: A doctor discusses menopause, 1363

Lamm, Stanley S.: Pediatric neurology, 1360

Levitt, Morton (editor): Readings in psychoanalytic psychology, 1362

Lewin, Philip: The foot and ankle, 2101

Martmer, Edgar E. (editor): The child with a handicap, 1189

Mathison, Richard R.: The eternal search, 143

Medical Department, United States Army: Preventive medicine in World War II, 1012

Medical Department, United States Army: Surgery in World War II, 1012

Miller, Norman F., Evans, T. N., and Haas, R. L.: Human parturition, 136

Miroyiannis, Stanley D.: 501 questions and answers in anatomy, 1918

Mosely, H. Fred: Textbook of surgery, 845

Moss, William T.: Therapeutic radiology rationale, technique, results, 1535

Obstetrics and gynecology, Volume 11, No. 1, 1360

Paschkis, Karl E., Rakoff, Abraham E., and Cantarow, Abraham: Clinical endocrinology, 664

Podolsky, Edward (editor): The neuroses and their treatment, 1189

Pollack, Robert S.: Treatment of breast tumors, 291

Prior, John A., Silberstein, Jack S., and contributors: Physical diagnosis, 1012

Richardson, Edward H.: A doctor remembers, 1361

Robinson, Marie N.: The power of sexual surrender, 2101

Ross, Stuart R.: Synopsis of treatment of anorectal diseases, 1916

Rowntree, Leonard G.: Amid masters of twentieth century medicine; a panorama of persons and pictures, 487

Rusk, Howard A., and 36 collaborators: Rehabilitation medicine, 292

Ryan, Robert E., et al: Synopsis of ear, nose and throat diseases, 1920

Sachs, Ernest: Fifty years of neurosurgery, 664

Sakel, Manfred: Schizophrenia, 1360

Saul, Leon J.: Technic and practice of psychoanalysis, 1534

Segaloff, Albert (editor): Breast cancer, 1361

Shartel, Burke: The law of medical practice, 1916

Sixth International Congress of Otolaryngology, 1533

Smith, Robert M.: Anesthesia for infants and children, 1917

Stearn, Lyon P.: The birth of normal babies, 1362

Stephenson, Hugh E.: Cardiac arrest and resuscitation, 1013

Stillson, J. Robert, and Morton, Daniel G. (editors): Clinical obstetrics and gynecology. Volume 1, No. 4 Symposium on operative obstetrics (JRS); and Symposium on genital cancer (DGM), 663

U. S. Department of Defense: Emergency war surgery, 142

Upjohn Grand Rounds No. 8: Clinical problems in chest disease, 1723

Vennes, Carol Hocking, and Watson, John C.: Patient care and special procedures in x-ray technology, 1721

Wachtel, Curt S.: Your mind can make you sick or well, 1534

Wakeley, Sir Cecil (editor): Hey Groves' synopsis of surgery, 1013

Way of life and selected writings of Sir William Osler, 1917

Wolstenholme, G. E. W., and O'Connor, Maeve (editors): Ciba Foundation colloquia on endocrinology, 140

Wright, Frank: The sedimentation rate of human erythrocytes, 1014

EDITORIAL COMMENT

120 years of social security, 352
American medical know-how aids mental health abroad, 352
Another inflation spiral twist, 354

Blue Cross cost, 548
Blue Cross looks to the 65-and-overs, 1390

Detroit's health: two aspects, 1390
Doctors' charges, 1402

Go see a doctor, 352

Hospital service in Canada, 354
How best to attack high hospital costs, 1402

M-75 Blue Shield, 1244

Needed relief for the elderly, 1390

Painless scalpel, 548

Veterans benefits programs, 352

EDITORIALS

1959 issues, The, 1295

AMA, The—Blue Shield—senior citizens, 803
Aged care plan, 240
Aging has values, 1491
Appreciation, An. (Beaumont Number), 798
Atom in peace and war, The, 1671

Beaumont Memorial and Mackinac Island, The, 798
Blue Shield, 101
Blue Shield administration, 242
Blue Shield and the new challenge, 1676
Blue Shield and the service ideal, 1296
Blue Shield future, 945
Blue Shield—the "Patient's Plan," 1854

Come, miracle! 944
Coming legislation, 423
Cost per member—$56.84! 628

Doctor as a citizen, The, 238

Editorial policy, 1293
Editor's comments, 1671
Elections, 1145
Every physical examination a cancer detection procedure, 626

Forand Bill, The, 802
Foster, L. Fernald, has passed, 947

Governor's commission, 1675

Health care for our senior citizens, 103
Historic document, An!! 100
History repeats, 1294
Hospital care for the aged, 627
Hospital costs again, 420
House of Delegates comes through, The, 2035
Immunization and poliomyelitis, 800
Income taxes, 422
It can happen here, 1144

Jenkins-Keogh bill, The, 1295
Johnson, Kenneth H., M.D., president-elect, 2037

Keogh bill, The, 801

M-75 contract, The, 1673
Medical and hospital service in Washtenaw County, 418
Medical care for federal civil employees, 946
Medical education, 100
Medicine and Blue Shield accept the challenge, 243
Medical publicity, 1494
Michigan's prepaid medical care, 1491
Michigan's senior contributory benefit certificate, 1297
Misrepresentation, 2038
MSMS Committee on postgraduate medical education, The, 800
MSMS House of Delegates, 1494

National legislation, 241, 1851
New dresses, 422
New problems—new responsibilities, 100
New registration law control psychologists, 2039
Nineteen fifty-nine, 2039
Ninety-fourth annual session, 1852

OASDI coverage of doctors, 946

Progressive myopia, 803

Relative value study, 2037
Report on hospitals, 421

Senior citizens, 1143
"Stand tall," 1675
Statement of principles, A, 103
Symbols on September cover, 2038

"The big lie," 1144
Third medical school? 101
Time is ripe, The, 1142
To correct misinformation and misapprehension, 944
Tribute to willing workers, 242
Tuberculosis suspect, The, 1849

Unprecedented procedure (Michigan legislature passes joint resolution of sympathy upon death of L. Fernald Foster, M.D.), 948

Valuable re-enactment of medical history (studies of digestive processes), 800
Voluntary health insurance for the aged, 626

We lost three, 1851
What does Blue Shield really mean to us? 1145
What will be medicine's future? 942
Which path to medical security? 2038
Windsor Medical Service, 802

HEART BEATS

1959-1960 grants for heart research announced, 1028
American Heart Association grants-in-aid, 1032
Clinical speakers available, 26

Clinical speakers bureau, 1378

Dean's funds and student fellowships, 20
Dean's funds and medical student fellowships continued, 1032

"Heart in industry" conference set, 1378
Heart research grants announced, 20
Homemaker rehabilitation program changed, 1378

Membership, 26
Michigan Heart Association elects officers, 724
Michigan Heart Association tenth annual meeting, 26
"Michigan Heart Day," February 13, 1960, 1378

IN MEMORIAM

Anderson, Axel W., 1508

Baer, Raymond B., 632
Barnebee, James W., 256
Baron, Benzion C., 1684
Beigler, Sydney K., 1866
Bernstein, Albert E., 452
Bethell, Frank H., 988
Bettison, William L., 1866
Blain, Alexander William, 256
Blakeley, Arthur C., 1684
Broudo, Philip H., 132
Burley, David, 988, 1164
Burnell, Max R., 1866

Capron, Manley J., 1684
Carlton, Arthur J., 988
Cassidy, William J., 632
Clifford, Robert H., 1164
Cochrane, Wayne A., 1684
Comfort, Milton Douglas, 1866
Connell, John T., 1342
Cooper, John E., 632
Cruikshank, Alexander, 256
Cushing, Russell, 258

Doyle, Charles P., 132

Edwards, Aaron R., 132
Eggleston, Harry R., 810

Fast, Ralph B., 810
Fettig, Carl A., 810
Fleischman, Norman A., 810
Flynn, Southard T., 1164
Frederickson, Gereon, 810

Gibson, Frank J., 2064
Giering, Charles N., 1166
Glenn, Bernard Hamlin, 1872
Grosjean, Joseph C., 1166

Harkness, Carlton A., 1684
Harrison, Hugh Wesley, Sr., 452, 634
Henry, Leonard L., 1686
Herzer, Henry A., 258
Higbee, Arthur L., 1342
Hollard, Alfred E., 1508
Hooper, Kendall, 1686
Hornsby, William Boyd, 1872
Howlett, Edward V., 812

Jaenichen, Robert F., 988

Kersten, Werner C., 1342

Landy, George R., 634
Lanning, Nicholas E., 2064
Lichtwardt, Hartman A., 990
Loveland, Horace Hall, 258

McDonald, Thomas Alexander, 2065
McGuire, M. Ruth, 812
McKillop, Gordon, 990
Martindale, E. A., 452
Martzowka, M. S., 1872
Mayer, Emil V., 1872
Merrill, William O., 452
Meyer, Hugh R., 1166
Miller, Harold A., 2064
Morris, Roger S., 452
Morton, James A., 1874
Munger, Lewis Phelps, 452

O'Brien, Edward James, 2057

Peck, Louis K., 1342
Penberthy, Grover C., 1686
Powers, Lunette I., 812

Reetz, Fred A., 1688
Riecker, Herman H., 452
Riseborough, Ernest C., 258
Roney, Eugene H., 990

Sayre, Philip P., 1688
Shook, Ralph W., 1688
Smith, Clarence V., 1874
Stanka, Andrew G., 452
Steinbach, Henry B., 132
Stiles, Frank, Jr., 1690
Stinson, Walter S., 2068
Stone, Fordyce H., 990
Swanson, Cleary N., 634
Switzer, Lars W., 2068

Thomas, J. Orville, 132

Ulrich, Russell W., 258
Unkefer, Le Moyne, 1342
Uthoff, Carl W., 1690

Vary, Edwin P., 1690

Walters, Albert G., 1166
Weiser, Frank A., 1874
Weiss, Joseph G., 258
Wilcox, James W., 1874

LEGAL OPINIONS

Dodd, Lester P. (disclosure of hospital records), 638
Dodd, Lester P. (right of access to hospital records), 1340
Dodd, Lester P. (tax exemption status of medical organizations), 290
Important far-reaching court decision (Cutter Laboratories polio vaccine), 456

MEDICOLEGAL FORMS

Consent to removal of tissue for grafting, 328
Letter of withdrawal from case, 50

MICHIGAN CLINICAL INSTITUTE

Michigan Clinical Institute (1959)
Educational seminar nurses institute, 245
Meetings of auxiliary groups, 244
Operating room nurses institute, 245
Program of color motion pictures, 245
Review of meeting, 726
Technical exhibits, 247

Michigan Clinical Institute (1960), information and program, 2051

Nineteen honored at testimonial luncheon, Michigan Clinical Institute, 871

What they said about the 1959 Michigan Clinical Institute, 878

MICHIGAN'S DEPARTMENT OF HEALTH

1960 White House conference on children and youth, 630
Advances made in hospital care and facilities, 1334
Diagnosis tests for virus infections, 808
Gamma globulin supplies increased, 1860
How health adds up, 110
Immunization schedules, 252
Ionizing radiation, 448
Mass vision screening for three and four year olds, 1504
New policy regarding eligibility for special medical certificate, 2062
Poliomyelitis in Michigan (1958), 252
Rabies specimens, 1682
Q fever found in Michigan, 1162
TPCF out: RPCF in, 1860
Venereal disease in Michigan, 986

Michigan State Medical Society

Committees—Annual Reports:
Advisory Committee to Michigan State Medical Assistants Society, 1320
Advisory Committee to Woman's Auxiliary, 1320
Child Welfare, 1317
Diabetes, 1160
Ethics, 1160
Geriatrics, 1159
Iodized Salt, 1158
Legislative, 1316
Maternal Health, 1158
Mental Health, 1157
Permanent Advisory, 1317
Postgraduate Medical Education, 1156
Prevention of Highway Accidents, 1161
Preventive Medicine, 1156
Public Relations, 1317
Rheumatic Fever Control, 1157
Scientific Radio, 1160
Study Committee on term of Councilor, 1319
Tuberculosis Control, 1319
Venereal Disease Control, 1159

The Council MSMS:
Annual report, 1305
Annual session (January 30-31, 1959), 424
Midsummer session (July 16-17, 1959), 1501

Highlights of the annual session, 2041
House of Delegates—digest of proceedings, January 1959 (Section 2)

Ninety-fourth annual session:
House of Delegates and alternates (1959) 982
Information, 979
Meetings of special societies, 1304
Official call, 978
Order of business, House of Delegates, 980
Program, 1101
State Society Night, 1303
Technical exhibits, 1321

Treasurer's report, (December 1, 1957-November 30, 1958), 804
What they said about the 1959 annual session, 2040

Miscellaneous

Addictions to alcohol, narcotics and barbiturates among physicians, 107

College possible for the blind, 1032
Congress of the professions, 2039

Foster, L. Fernald, M.D., 1147

Governor's hospital cost survey, 312
Grand old men of medicine, The, 1301
Ground broken for new MSMS headquarters, 720

Heidenreich, J. R., and Huron, W. H., honored by Upper Peninsula Medical Society, 1226
Honor Saginaw man "Foremost Family Physician," 1855
How to handle an avalanche—Michigan, 1151

It can be done! 696

Maternal mortality study, 1494
Medical groups attack problem of aged patient, 1940
Michigan Association of the Professions started, 730
Michigan MD split averted by Shield plan agreement, 2050
Michigan relative value study plans disclosed, 26
Michigan State Fair exhibit wins first place, 1783
MSMS members like group life insurance plan, 322

New dean at University of Michigan, 1236
New medical science buildings opened, 496

Open forum on prepayment hospital and medical care plans, 949
Blue Cross views financing, H. G. Pearce, Detroit, 967
Commercial insurance views financing, Joseph F. Follman, Jr., New York, 971

Hospitals view financing. George E. Cartmill, Jr., Detroit, 960
Labor views financing, Jerome Pollack, Detroit, 950
Management views financing, Malcolm L. Denise, Dearborn, 955
Payments to subscribers, March 1, 1940 through December 31, 1958, 977
Physician views financing, Max Lichter, M.D., Detroit, 963

Report on medical care coverage for the aged, 1222
Report on new MSMS headquarters, 1152, 1298, 1498, 1678, 1856, 2048
Report to The Council of MSMS on the Conference of Aging, 1380
Rural health conference hits record, 882

Seal of Assurance Plan, 718, 1222
Senior citizen, The, 1232
State medical journal editors' conference, 1966

Twelve elected to Michigan Medical Service Board, 1788

OBSTETRICAL BREVITS

Antepartum and intrapartum use of pituitary-like preparations, 1859

Ectopic pregnancy, 1677

Introduction, 1677
Third trimester hemorrhage, 2047

PRESIDENT'S PAGE

Aging—a community responsibility, 2036

Community, The: a challenge in responsibility, 239

Harmony, 1672
He'll be there, 1146
Human flailing, 1292

Michigan Cancer Co-ordinating Committee offers progress, 625

New year in the history of the Michigan State Medical Society, 1848
Norm is shocking, The! 943
Swan song, 1492

Thanks, Jay! 417
Too tired to do our duty? 799

"You gotta have heart," 99

PUBLIC RELATIONS

AMA Public Relations Institute—"Is medicine on the right track?" 1778
Annual registration effective next year, 1598

County societies observe Diabetes Week, 342
County secretaries—PR seminar, 335
Doctors visit capitol, 1220
Executive secretaries conference, 340

Genesee physicians continue project on athletic injuries, 1782
HIF announces new study of admissions to hospitals, 540
Hippocrates and more! Robert D. Swanson, D.D., 342
Hospital costs soaring, 1782

Ingham, Jackson doctors join in medical TV programs, 1220
It's Simpson-Keogh this year, 540

January 30-31 set for county secretaries-public relations seminar, 1782

Lawmakers convene, 340

McNamara hearings explore status of Michigan's aging, 1948
Medical assistants hold Seminar II, 542
Medical assistants in-service training program hailed, 190
Medical society supports radio series, 542
Midland CMS awards science fair winners, 342
MSMS conference sees medical writer and doctor as partners in public service, 1037
MSMS exhibits at Michigan state fair, 1599
MSMS has successful legislative season; no let-up seen in future, 1598
MSMS plans television show in Kalamazoo, 340

New radio show begun by Oakland CMS, 1220
New TV screen for Michigan Clinical Institute shows, 48
Non-citizen physicians gain private practice privileges, 1598

Oakland doctors help at area football contests, 1952

Pamphlets of the month, 1220
Press code approved by MSMS, 48
Professional conduct expounded, 342
Public sees "The Family Doctor," The, 1038
Record four thousand service club members hear M.D. speakers during MCI, 874

Saginaw CMS honors scholars at reception, 1220
Society officers map schedule of visits to Wayne area hospital staffs, 48
Spring election, 190

Third "Family Doctor" show produced in Grand Rapids, 1948
To weigh less, 340
Truth triumphed, 540
TV network to carry colorcast of "cataract extraction" during MCI, 190
TV ousts phony men-in-white, 540

Van Buren M.D.'s paid tribute by county supervisors, 1782

YOU AND YOUR BUSINESS

$174.6 million given by NIH in past year, 1774
Adoption regulations, 526
Advisory committee on fees, 28
A.H.A. reverses stand, 1776

American Medical Education Foundation, 1044
Asian flu virus, 168
Awards for manuscripts on obstetrics and gynecology, 176

Better medicolegal relations urged, 1962
Big technical exhibit at '59 MCI, 160
Bigger 1959 SAMA scientific assembly planned, 40
Blue Shield professional relations conference, 176

Chrysler Corporation doctors, 38
Communication from Blue Shield Commission, 37
Component officers to meet, 28
Compulsory retirement hit by AMA President Orr, 1962
Conduct four regional health conferences, 1774
Conference on aging, 536
Congress on occupational health, 308

Doctors' nurses organize, 1198
Doctors' offices in hospital-financed buildings, 168

Federal health legislation, 1774
First directory of blood facilities, 176
Foundation aids study in hospitals, 1198
Freedom of choice, 1200

Germ-free laboratory, 38
Grants to WSU announced, 542
Ground breaking, 308

Health program for aging, 28
Highlights of the Executive Committee of The Council:
November 19, 1958, 42
December 10, 1958, 166
March 9, 1959, 710
April 1, 1959, 890
May 20, 1959, 1048
August 19, 1959, 1548

Industrial medicine, 37
Inflation, 1200
International Academy of Proctology, 308
International College of Surgeons meets, 310

Live surgery to be televised to public during MCI, 28

Medical aid for the aged, 30
Medical costs affect automobile insurance rates, 1198
Medical officials urge cut rates for aged, 30
Medicare, 1768
Michigan Cancer Co-ordinating Committee unifies effort, 526
Michigan's blood bank workshop, 182
"Michigan Heart Day" set for Detroit in February, 1962
Michigan representatives honored at AAMA, 1964
More about inflation, 1200
MSMS annual meeting, new officers, 44
MSMS gains seven AMA delegates, 526
Multiple sclerosis chapter redirects program, 536
Multiple sclerosis research, 708
Muscular dystrophy research, 536

New group life insurance plan offered, 156
New science building for Wayne State University, 536

Oregon cancer conference, 310

Pharmaceutical firm wins injunction, 1548
Precautions against auto theft, 1774
Presidents room in new MSMS building, 156
Price index falls but medical care goes up, 1774
Public welfare medical relief, 706

Render MCCC bills thirty days after discharge, 1200
Resolution regarding L. Fernald Foster, M.D., 1198

Schedule for regional health conference in state, 1548
Seek to clarify military status, 1768
Six of seven Michigan families have health insurance, U-M survey reports, 1044
Six ophthalmology residency fellowships announced, 308
Social security to include medical services? No, say voters polled, 1044
Speeding medical communications, 706
Surgery for prevention of cancer done twice as often as decade ago, 1768
Surgery of trauma, 310

Tax court ruling, 706
Three popular publications (Cancer Co-ordinating Committee), 526
Total medical care bill runs $23 billion a year, 1774
TV colorcasts set for MCI, 160

UMW fund, 1776

White House conference on aging (1961), 310
White House conference on children and youth, 308

Your advice needed for 1960 White House conference on children, 708

C. A. Conshus, M.D., Says . . .





Old Joe was resigned to his fate.

He moaned, "I'm in terrible strait."

"It hurts when I piddle,

Clear up to my middle,

I fear it's my doggone prostate."

But Joe wouldn't throw in the dice.

To his doctor he went for advice.

And now it runs out

Like a real water spout

Says Joe, "It was sure worth the price."



POINT - Prostate

DANGER SIGNAL - Any change in bladder habits.

Limericks by Sydney B. Carpender—Drawings by Robert Toombs.
Reprinted from the *Pennsylvania Medical Journal*, November 1957-October 1958. By permission of the Commission on Cancer, The Medical Society of the State of Pennsylvania and the American Cancer Society, Pennsylvania Division, Inc.

UNIV. OF MARYLAND
LIBRARY
Founded 1813
FEB 18 '59
SCHOOL OF MEDICINE

The Journal
Michigan
STATE MEDICAL SOCIETY

January, 1959
Volume 58
Number 1
Section 2

Michigan State Medical Society
Ninety-Third Annual Session
September 26-30, 1958

Digest of Proceedings of the House of Delegates

(This number is composed of two sections, of which this is Section 2)

MSMS Ninety-Third Annual Session—1958
House of Delegates Proceedings

TABLE OF CONTENTS

		Introduction of Business	*Reference Committee Report*
I.	Record of Attendance (Roll Call)	7	
II.	In Memoriam	8	
III.	Speaker's Remarks	9	39 approved
IV.	President's Remarks	9	39 approved
V.	President-Elect's Remarks	11	40 approved
VI.	Reports of The Council	11	40 approved
	Addenda: 1. American Medical Education Foundation	14	43 clarified and approved
	2. Medical Care Insurance Committee's Supplemental Report	15	49 approved
VII.	Report of Delegates to American Medical Association	15	40 approved
VIII.	Report of Woman's Auxiliary to MSMS	15	40 approved
IX.	Report of Michigan State Medical Assistants Society	16	40 approved
X.	Michigan Medical Service Report	16	47 approved
XI.	Selection of Michigan's Foremost Family Physician	16	41
XII.	Fifty-Year Awards	16	
XIII.	Supplemental Annual Report of Big Look Committee (new MSMS headquarters building)	17	48 approved
XIV.	Michigan's Nominee for President's Award on Employment of Physically Handicapped	19	
XV.	Resolutions and Motions	19	
	(Where Resolutions are identical or similar in content, the names of the introducers are indicated, to avoid confusion.)		
	1. Two-thirds membership vote shall constitute favorable referendum	19	68 no action
	2. Fund raising—federated and otherwsie (Beets)	19	45 & 52 combined with Res. 23 which was amended and approved
	3. Repeal of State of Principles covering Blue Shield Contract (Bates)	20	62 no action
	4. Alphabetical listing of members	20	48 amended and approved
	5. Termination of sale of Blue Shield's M-75 Contract (Miller)	20	62 no action
	6. Medical representation when management-labor negotiate medical services	20	43 disapproved
	7. Fee Committees shall work under The Council	20	51 amended and approved
	8. No distinction in payment between non-participating and participating physicians in Blue Shield	20	62 substitute resolution approved
	9. Sponsorship of Association of American Physicians and Surgeons Essay Contest	21	47 amended and approved
	10. Repeal of Statement of Principles covering Blue Shield contracts (Rice)	21	62 no action
	11. MSMS Councilor District representation on Blue Shield Board of Directors	21	43 sponsor was referred to MMS
	12. Study of method to allot proportional units when medical service is provided by more than one physician	21	61 disapproved
	13. Poll on Social Security	22	40 authorized
	14. Rules of conduct for physicians in closed panel practice	22	44 no action
	15. Suspension of sale of Blue Shield's M-75 contract (Power)	22	62 no action
	16. Responsibility for treatment of diabetes mellitus	22	45 disapproved
	17. Distribution of free polio vaccine to medically indigent	22	45 revised and approved
	18. Rules for control of medical staff in public hospitals	23	46 amended and approved
	19. Study Committee on Alcoholism	23	45 approved

		Introduction of Business	*Reference Committee Report*	
20.	No House of Delegates meeting on Sunday, unless necessary	23	48	amended and approved
21.	Bylaws (Chapter 16, Section 1) re date of suspension for non-payment of dues	23	43	disapproved
22.	Recognition of psychiatrically-ill patient in Blue Shield's M-75 contract	23	60	substitute resolution approved
23.	Fund raising—federated and otherwise (Hansen)	24	45 & 52	amended and approved
24.	Proposed law to regulate operation of ambulances	24	46	amended and approved
25.	Expression of appreciation to retiring Councilor J. F. Beer, M.D.	24	44	approved
26.	Publication of names of physicians participating in Blue Shield	39	51	amended and approved
27.	One full day for reference committee meetings	39	52	disapproved
28.	Appreciation to Michigan Office of Civil Defense Director Ralph M. Sheehan and staff	53	56	approved
29.	Bylaws (Chapter 5, Sections 4 & 6) re special memberships	53	55	disapproved
30.	Bylaws (Chapter 5, Section 6) re clarification of Life Membership qualifications	53	55	amended and approved
31.	Bylaws (Chapter 12, Section 1) re term of Councilors	53	55	disapproved; study committee recommended
32.	Greater interest in diabetes detection	53	56	amended and approved
33.	Reaffirming Statement of Principles of 1957 House of Delegates	54	68	no action
34.	Composition of Permanent Advisory Committee on Fees (Thorup)	54	54	combined, amended and approved
35.	Composition of Permanent Advisory Committee on Fees (Falls)	54	54	
36.	Motion to correct error in list of Life Members	56	56	approved
37.	Expression of appreciation to W. H. Huron, M.D.	58	58	approved
38.	Motion to recess at a time certain	59	59	approved
39.	Motion: information to Delegates quarterly on progress in Blue Shield's programs	67	67	amended and approved
XVI.	Reports of House of Delegates' Committees	24		
1.	Annual Report of Permanent Advisory Committee on Fees (question of term of members thereof)	24	52	approved
2.	Annual Report of Committee on Committees	25	42	approved
XVII.	Reports of MSMS Standing Committees	25	40	
1.	Committee on Postgraduate Medical Education	25	40	approved
2.	Preventive Medicine Committee and sub-committees	25	41	approved
3.	Public Relations Committee and sub-committees	25	41	approved
4.	Ethics Committee	25	41	approved
5.	Legislative Committee	25	41	approved
XVIII.	Reports of Special Committees	25	42	
1.	Scientific Radio Committee	25	42	approved
2.	Advisory Committee to Woman's Auxiliary	25	42	approved
3.	Advisory Committee to Michigan State Medical Assistants Society	25	42	approved
XIX.	Medical Care Insurance Committee—Annual Report and Supplemental Annual Report (a committee of The Council)	15, 26-37	59	approved

TABLE OF CONTENTS

	Introduction of Business	Reference Committee Report	
XX. Reports of Reference Committees		39	
1. *On Officers' Reports*		39	
(a) Speaker's Remarks (39); (b) President's Remarks (39); (c) President-Elect's Remarks (40); (d) Report of Delegates to American Medical Association (40); (e) Report of Woman's Auxiliary to MSMS (40); (f) Report of Michigan State Medical Assistants Society (40); (g) Resolution re poll on Social Security (40)			
2. *On Reports of Standing Committees*		40	
(a) Postgraduate Medical Education Committee (40); (b) Preventive Medicine Committee (41); (c) Public Relations Committee (41); (d) Ethics Committee (41); (e) Legislative Committee (41)			
3. *On Reports of Special Committees*		42	
(a) Scientific Radio Committee (42); (b) Advisory Committee to Woman's Auxiliary (42); (c) Advisory Committee to Michigan State Medical Assistants Society (42); (d) Committee on Committees (42); (e) Permanent Advisory Committee on Fees (52); (f) Composition of Permanent Advisory Committee on Fees (54)			
4. *On Constitution and Bylaws*		42	
(a) Proposed Amendment to Constitution, Article VII and Bylaws, Chapter 8, Section 1 re Section representatives in MSMS House of Delegates (42)			
(b) Proposed amendment to Bylaws, Chapter 16, Section 1 re date of suspension for non-payment of dues (43); (c) Proposed amendment to Bylaws, Chapter 5, Sections 4 and 6 re special memberships (55); (d) Proposed amendment to Bylaws, Chapter 5, Section 6 re clarification of Life Membership qualifications (55); (e) Proposed amendment to Bylaws, Chapter 12, Section 1 re terms of Councilors (55)	from 1957 Session	42	disapproved
5. *On Resolutions*		43	
(a) American Medical Education Foundation (43); (b) Medical representation when management-labor negotiate medical services (43); (c) MSMS Councilor District representation on Blue Shield Board of Directors (43); (d) Rules of conduct for physicians in closed panel practice (44); (e) Expression of appreciation to retiring Councilor J. F. Beer, M.D. (44)			
6. *On Special Memberships*		44	
7. *On Hygiene and Public Health*		45	
(a) Study Committee on Alcoholism (45); (b) Distribution of free polio vaccine to medically indigent (45); (c) Responsibility for treatment of diabetes mellitus (45)			
8. *On Legislation and Public Relations*		45	
(a) Fund raising—federated and otherwise—two resolutions, one by Beets, another by Hansen (45 and 52); (b) Rules for control of medical staff in public hospitals (46); (c) Proposed law to regulate operation of ambulances (46); (d) Sponsorship of Association of American Physicians and Surgeons essay contest (47)			
9. *On Miscellaneous Business*		47	
(a) Michigan Medical Service report (47); (b) Alphabetical listing of members in Directory of Members (48); (c) No House of Delegates meeting on Sunday, unless necessary (48); (d) greater interest in diabetes detection (56)			
10. *On Reports of The Council*		48	
(a) Annual Reports of The Council (48)—including new MSMS headquarters building (48); Matters referred to The Council by 1957 House of Delegates (49); Medicare (49); Group life insurance plan (49); Hospital staff payments (50); (b) Resolution that fee committees shall work under The Council (51); (c) Resolution re publication of names of physicians participating in Blue Shield (51); (d) Motion of commendation to The Council (51)			

		Introduction of Business	*Reference Committee Report*
11.	*On Rules and Order of Business* ..... (a) Resolution re one full day for reference committee meetings (52)		52
12.	*On National Defense and Disaster Planning* ..... (a) Appreciation to Michigan Office of Civil Defense Director Ralph M. Sheehan and staff (56)		56
13.	*On Medical Service and Prepayment Insurance* ..... (a) Annual Report of Medical Care Insurance Committee (59); (b) Supplemental Annual Report of Medical Care Insurance Committee (59); (c) Report of Seal of Assurance Auditing Committee (60); (d) Resolution re recognition of psychiatrically-ill patient in Blue Shield's M-75 contract (60); (e) Study of method to allot proportional units when medical service is provided by more than one physician (61); (f) No distinction in payment between non-participating and participating physicians in Blue Shield (62); (g) *Four Resolutions:* repeal of Statement of Principles covering Blue Shield contracts (Bates)—(62), Repeal of Statement of Principles covering Blue Shield contracts (Rice)—(62), Termination of sale of Blue Shield (62); (g) *Resolutions:* repeal of Statement of sale of Blue Shield's M-75 contract (Power)—(62); (h) *Two Resolutions:* Two-thirds membership vote shall constitute favorable referendum (68), and reaffirming Statement of Principles of 1957 House of Delegates (68)		59
XXI.	Elections	57	
1.	Councilor, Seventh District	57	
2.	Councilor, Eleventh District	57	
3.	Councilor, Twelfth District	57	
4.	Councilor, Thirteenth District	57	
5.	Councilor, Seventeenth District	57	
6.	Delegates to American Medical Association	57 & 58	
7.	Alternate Delegates to American Medical Association	58	
8.	President-Elect	59	
9.	Speaker of House of Delegates	59	
10.	Vice Speaker of House of Delegates	59	
XXII.	Miscellaneous	54	
1.	Michigan Medical Service—Election to Board of Directors	54	
2.	Copies of Yamasaki slides of new headquarters building	56	
3.	Commendation of Speaker K. H. Johnson, M.D.	58	
XXIII.	Adjournment	68	

MSMS House of Delegates—1958

Summary of Proceedings

The Ninety-third Annual Session of the Michigan State Medical Society's House of Delegates was held in Detroit, September 28-30, 1958.

The House of Delegates:

1. *Adopted with thanks the Speaker's remarks;* the President's remarks; the President-Elect's remarks; the report of Delegates to the American Medical Association; the report of Woman's Auxiliary to Michigan State Medical Society; the report of the Michigan State Medical Assistants Society; and the Michigan Medical Service report.

2. *Approved the Annual Reports of The Council* including recommendations (a) to erect a new MSMS headquarters building; (b) to institute a group life insurance plan for MSMS members; and (c) urging members to voluntarily contribute to the American Medical Education Foundation. The Annual and Supplemental Reports of Committees of The Council were approved.

3. *Adopted Annual Reports of two House of Delegates Committees:* (a) Permanent Advisory Committee on Fees; and (b) Committee on Committees.

4. *Adopted Annual Reports of all Standing Committees and of all Special Committees of the Society.*

5. *Approved the Annual and Supplemental Annual Reports* of the Medical Care Insurance Committee, as well as the report of the special Auditing Committee on Seal of Assurance which indicated that the total number of participating contracts in force was 3,913.

   The Medical Care Insurance Committee, charged with the responsibility of implementing the Statement of Principles on Prepaid Medical Care adopted by the 1957 House of Delegates, recommended the endorsement of the new Michigan Medical Service contract (M-75) as complying in every detail with the MSMS Statement of Principles, which recommendation was approved by the 1958 House of Delegates. Following is an extract from the MCIC Annual Report: "To assure a closer liaison between practicing physicians, Michigan State Medical Society, and the carrier (Blue Shield), MCIC has developed the work and responsibilities of Councilor District Medical Care Insurance Committees as directed by the Statement of Principles. These local committees have been appointed by The Council and their activity during the coming year will be co-ordinated with the work of the MSMS Medical Care Insurance Committee. By this and other means, a continuing review of the Seal of Assurance Plan will be made and a direct line of communication established from the individual Doctor of Medicine to the MCIC, the Permanent Advisory Committee on Fees, and The Council." The Delegates are to be informed quarterly of the progress made by the mechanism set up and in operation for the instrumentation of the program.

   The MCIC was directed to develop the Michigan Relative Value Scale. The MCIC recommended that presentations of its Supplemental Report (published *in toto* in December Number, JMSMS), illustrated by slides, be made available to all component societies.

   On the subject of payment of non-participating physicians: the House of Delegates adopted a substitute motion which stated:

   "That recompense for services rendered to a patient under Michigan Medical Service contracts continue to be the same, whether the physician is participating or non-participating. The participating physician will be paid directly by Michigan Medical Service. The non-participating physician will also be paid by Michigan Medical Service upon obtaining an assignment from his patient.

   "That because the problem of direct payment to non-participating physicians for services rendered to subscribers involves complex questions of law and equally complex questions pertaining to the honoring of existing contracts and contract offerings by Michigan Medical Service, a complete study of alternate methods of payment for services rendered by non-participating physicians be undertaken by the Medical Care Insurance Committee in conjunction with Legal Counsel for MSMS, and that such study be diligently pursued; and that as soon as the Committee is able to submit its findings based upon such study, its findings and recommendations shall be submitted to the next regular or a special meeting of the House of Delegates called for that purpose." The House of Delegates requested the governing body of Michigan Medical Service, and of any other approved carrier, that lists of participating physicians shall not be published or otherwise disseminated. The House of Delegates adopted a resolution that the problem of the care of mental illness as a benefit under Michigan Medical Service and Michigan Hospital Service contracts be called to the attention of the Board of Directors of MMS and MHS for their careful consideration.

   The Permanent Advisory Committee on Fees (of the House of Delegates) was instructed to work with The Council when the House was not in session, and all decisions of The Council regarding fees are to be reported to the Permanent Advisory Committee on Fees. Further, all minutes of proceedings of all committees dealing with fees and fee schedules are to be referred to and made available to the Permanent Advisory Committee on Fees promptly.

6. *Adopted resolutions concerning:* (a) fund raising—approved federated or otherwise; (b) alphabetical listing of members; (c) no objection to sponsorship of AAPS essay contest; (d) poll of members on Social Security; (e) distribution of free polio vaccine to medically indigent; (f) proposed legislation for control of medical staff in public hospitals; (g) creating study committee on alcoholism; (h) no House of Delegates meeting to be held on Sunday, unless necessary; (i) proposed law to regulate operation of ambulances; (j) greater interest in diabetes detection; (k) resolutions expressing appreciation to retiring AMA Delegate W. H. Huron, M.D., Iron Mountain, to retiring Councilor J. F. Beer, M.D., St. Clair, and to Michigan Office of Civil Defense Director Ralph M. Sheehan and his staff.

7. *Took favorable action* on proposal to amend the Bylaws (Chapter 5, Section 6) clarifying Life Membership qualifications.

8. *Took no action* on the following proposals: (a) Two-thirds membership vote shall constitute favorable referendum of MSMS; (b) repeal of Statement of Principles covering Blue Shield contract; (c) termination of sale of Blue Shield M-75 contract; (d) suspension of sale of Blue Shield M-75 contract; (e) rules of conduct for physicians in closed panel practice; (f) re-affirming Statement of Principles of 1957 House of Delegates.

9. *Disapproved* the following resolutions: re (a) medical representation when management-labor negotiate medical services; (b) study of method to allot proportional units when medical service is provided by more than one physician; (c) responsibility for treatment of diabetes mellitus; (d) one full day for reference committee meetings of House of Delegates; (e) proposed amendment to Bylaws, Chapter 16, Section 1, re date of suspension for non-payment of dues; (f) proposed amendment to Bylaws, Chapter 5, Sections 4 and 6, re Special Memberships; (g) proposed amendments to Bylaws, Chapter 12, Section 1, re term of Councilors—a study committee on this subject was recommended. The sponsor of a resolution recommending that members of Blue Shield Board of Directors be representative of MSMS Councilor Districts was referred to Michigan Medical Service.

10. *Elected the following officers:*
    (a) C. N. Hoyt, M.D., Port Huron, as Councilor, 7th District, (1962).
    (b) W. M. LeFevre, M.D., Muskegon, as Councilor, 11th District, (1963).
    (c) B. T. Montgomery, M.D., Sault Ste. Marie, as Councilor, 12th District, (1963).
    (d) T. P. Wickliffe, M.D., Calumet, as Councilor, 13th District, (1963).
    (e) W. W. Babcock, M.D., Detroit, as Councilor, 17th District, (1963).
    (f) R. L. Novy, M.D., (1960), W. D. Barrett, M. D., (1960) both of Detroit, and G. W. Slagle, M.D., (1960), Battle Creek, as Delegates to the American Medical Association.
    (g) Luther R. Leader, M.D., Detroit, (1960); Wm. Bromme, M.D., Detroit, (1960), and Ralph W. Shook, M.D., Kalamazoo, (1960), as Alternate Delegates to the American Medical Association.
    (h) Milton A. Darling, M.D., Detroit, as President-Elect.
    (i) K. H. Johnson, M.D., Lansing, as Speaker of the House of Delegates.
    (j) J. J. Lightbody, M.D., Detroit, as Vice-Speaker of the House of Delegates.

11. *Elected Fred J. Drolett, M.D.,* Lansing, as Michigan's Foremost Family Physician for 1958.

12. *(a) Selected R. W. Pomeroy, M.D.,* Lansing, as Michigan's nominee for President's Award on Employment of Physically Handicapped.
    (b) Presented Fifty-Year Awards to:
    William J. Cassidy, M.D., Detroit; Wayne A. Cochrane, M.D., Jackson; Fred H. Cole, M.D., Detroit; Clayton J. Ettinger, M.D., Detroit; Samuel Glassman, M.D., Detroit; Bernard H. Glenn, M.D., Fowlerville; Lloyd W. Howe, M.D., Marquette; Mark Marshall, M.D., Ann Arbor; J. Earl McIntyre, M.D., Lansing; Harriet E. McLane, M.D., Detroit; Daniel J. O'Brien, M.D., Lapeer; J. M. Robb, M.D., Detroit; Susanne M. Sanderson, M. D., Detroit; Leal K. Slote, M.D., St. Joseph; Andrew L. Swinton, M.D., Marquette; Henry L. Ulbrich, M.D., Grosse Pointe Woods; and Paul Van Riper, M.D., Champion.

13. *Elected to Special Memberships:*

    (a) *Forty-two members to Life Membership*—Alpena County: Harry J. Burkholder, M.D.; Genesee County: Arthur C. Blakeley, M.D., Leon M. Bogart, M.D., Guy D. Briggs, M.D., Edwin G. Dimond, M.D., Roy A. McGarry, M.D., Ira D. Odle, M.D., William W. Stevenson, M.D., George D. Sutton, M.D., Grant Thorburn, M.D., Inga W. Werness, M.D.; Jackson County: Corwin S. Clarke, M.D., W. B. Huntley, M.D.; Kent County: Jacob D. Mulder, M.D.; Muskegon County: Martha Goltz, M.D., Vilda S. Laurin, M.D.; Northern Michigan Counties: James R. Stringham, M.D.; St. Clair County: T. H. Cooper, M.D.; Shiawassee County: Carleton A. Harkness, M.D.; Washtenaw County: Margaret Bell, M.D.; Wayne County: Mary B. Campbell, M.D., James A. J. Hall, M.D., Frederik E. Hansen, M.D., Arthur B. Henderson, M.D., Thomas G. Amos, M.D., Glenn B. Carpenter, M.D., Lona B. Carroll, M.D., Albert E. Catherwood, M.D., Thomas P. Clifford, M.D., Margarete W. Coleman, M.D., L. C. M. Conley, M.D., Harry F. Dibble, M.D., Raymond S. Goux, M.D., Leo E. Grajewski, M.D., Robert I. Greenridge, M.D., Daniel J. Leithouser, M.D., Leon E. Pangburn, M.D., Alvord R. Sanderson, M.D., Ward F. Seeley, M.D., F. Janney Smith, M.D., Viola M. Young, M.D.; Wexford County: W. J. Smith, M.D.

    (b) *Fifteen members to Retired Membership*—Bay County: Walter S. Stinson, M.D.; Ingham County: Robert S. Breakey, M.D.; Saginaw County: E. G. Schaiberger, M.D.; Muskegon County: A. W. Mulligan, M.D.; Wayne County: Harvey S. Broderson, M.D., Schuyler O. Cotton, M.D., Hugo O. Dietzel, M.D., Arthur L. Higbee, M.D., Hartmann A. Lichtwardt, M.D., Walter E. McGillicuddy, M.D., John McKinnon, M.D., Julius Michels, M.D., Charles W. Peabody, M.D., Loren W. Shaffer, M.D., and Alexander M. Stirling, M.D.

    (c) *Twenty-two to Associate Membership*—Oakland County: Dorothy M. Goerner, M.D., Edwin S. Peeke, M.D.; Saginaw County: Raymond W. Dowidat, M.D., Robert D. Rector, M.D., James G. Kidd, M.D., Randall S. Derifield, M.D., Russell E. Pleune, M.D.; Wayne County: Dorothy Caton, M.D., Daniel Donovan, M.D., L. E. Kamin, M.D., Harry Kirschbaum, M.D., Frances L. Mac Cracken, M.D., Louis J. Morand, M.D., Harold Ohrt, M.D., Eugene Secord, M.D., Gerald Shortz, M.D., Mary Stellhorn, M.D., Carl G. Weltman, M.D., Leslie Wilcox, M.D., Abraham R. Lincoln, M.D., Vincent Mancuso, M.D.; Muskegon County: E. V. Williams, M.D.

Michigan State Medical Society

Ninety-Third Annual Session

DIGEST OF PROCEEDINGS OF THE HOUSE OF DELEGATES

SUNDAY EVENING SESSION

September 28, 1958

The Ninety-Third Annual Session of the House of Delegates of the Michigan State Medical Society, held at the Sheraton-Cadillac Hotel, Detroit, Michigan, on September 28-30, 1958, convened at 8:10 p.m., Kenneth H. Johnson, M.D., Speaker of the House, presiding.

I. RECORD OF ATTENDANCE

K. H. Johnson, M.D., Speaker
J. J. Lightbody, M.D., Vice Speaker
L. Fernald Foster, M.D., Secretary
Members-at-Large
(Immediate Past President)
Arch Walls, M.D.
(Honorary Member)
A. Verne Wenger, M.D.

	Meetings					
County and Delegate	*1st*	*2nd*	*3rd*	*4th*	*5th*	*6th*
ALLEGAN						
L. F. Brown, M.D.	x	x	x	x	x	x
ALPENA-ALCONA-PRESQUE ISLE						
E. S. Parmenter, M.D.	x	x	x	x	x	x
BARRY						
A. B. Gwinn, M.D.	x	x	x	x	x	x
BAY-ARENAC-IOSCO						
A. D. Allen, M.D.	x	x	x	x	x	x
D. A. Bowman, M.D.	x	x	x	x	x	x
BERRIEN						
N. J. Hershey, M.D.	x	x	x	x	x	x
D. W. Thorup, M.D.	x	x	x	x	x	x
BRANCH						
R. J. Fraser, M.D.	x	x	x	x	x	x
CALHOUN						
H. C. Hansen, M.D.	x	x	x	x	x	x
G. T. Kelleher, M.D.	x	x	x	x	x	x
CASS						
S. L. Loupee	x	x	x	x	x	x
CHIPPEWA-MACKINAC						
W. F. Mertaugh, M.D.	x	x	x	x	x	x
CLINTON						
F. W. Smith, M.D.	x	x	x	x	x	x
DELTA-SCHOOLCRAFT						
J. R. Dehlin, M.D.	x	x	x	x	x	x
DICKINSON-IRON						
D. R. Smith, M.D.	x	x	x	x	x	x
EATON						
B. P. Brown, M.D.	x	x	x	x	x	x
GENESEE						
G. E. Anthony, M.D.	x	x	x	x	x	x
F. W. Baske, M.D.	x	x	x	x	x	x
W. F. Buchanan, M.D.	–	–	–	–	–	x
C. W. Colwell, M.D.	x	x	–	x	x	x
F. D. Johnson, M.D.	x	x	x	x	x	x
J. E. Wentworth, M.D.	x	x	x	x	–	–
GOGEBIC						
W. A. Gingrich, M.D.	x	x	x	x	x	x
GRAND TRAVERSE-LEELANAU-BENZIE						
F. H. Power, M.D.	x	x	x	x	x	x
GRATIOT-ISABELLA-CLARE						
E. G. Meyers, M.D.	x	x	x	x	x	x
HILLSDALE						
A. W. Strom, M.D.	x	x	x	x	x	x
HOUGHTON-BARAGA-KEWEENAW						
P. S. Sloan, M.D.	x	x	x	x	x	x
HURON						
C. W. Oakes, M.D.	x	x	x	x	x	x
INGHAM						
L. A. Drolett, M.D.	x	x	x	x	x	x
H. W. Harris, M.D.	x	x	x	x	x	x
K. W. Toothaker, M.D.	x	x	x	x	x	x
F. L. Troost, M.D.	x	x	x	x	x	x
J. M. Wellman, M.D.	x	x	x	x	x	x
IONIA-MONTCALM						
R. E. Campbell, M.D.	x	x	–	–	–	–
R. E. Rice, M.D.	–	x	–	–	x	x
JACKSON						
H. W. Porter, M.D.	x	x	x	x	x	x
J. W. Rice, M.D.	x	x	x	x	x	x
KALAMAZOO						
W. K. Locklin, M.D.	x	x	x	x	x	–
J. G. Malone, M.D.	x	x	x	x	x	x
F. C. Ryan, M.D.	x	x	x	x	x	–
W. A. Scott, M.D.	x	x	x	x	–	x
KENT						
F. S. Alfenito, M.D.	x	x	x	x	x	x
W. C. Beets, M.D.	x	x	x	x	x	x
J. R. Brink, M.D.	x	x	x	x	x	x
J. A. Ferguson, M.D.	x	x	x	x	x	x
J. D. Miller, M.D.	x	x	x	x	x	x
V. A. Notier, M.D.	x	x	x	x	x	x
R. A. Rasmussen, M.D.	x	x	x	x	x	x
A. R. Vanden Berg, M.D.	x	x	x	x	x	x
LAPEER						
H. B. Zemmer, M.D.	x	x	x	x	x	–
LENAWEE						
G. C. Wilson, M.D.	x	x	x	x	x	–
LIVINGSTON						
H. C. Hill, M.D.	x	x	x	x	x	x
LUCE						
T. W. Thompson, M.D.	–	x	x	x	–	x
MACOMB						
E. J. Dudzinski, M.D.	x	x	x	–	x	x
E. G. Siegfried, M.D.	x	x	x	x	x	x
MANISTEE						
R. R. Garneau, M.D.	x	x	x	x	x	–
MARQUETTE-ALGER						
A. S. Narotzky, M.D.	x	x	x	x	x	x
MASON						
H. G. Bacon, M.D.	Not represented					
MECOSTA-OSCEOLA-LAKE						
Paul Ivkovich, M.D.	x	x	x	x	x	x
MENOMINEE						
J. R. Heidenreich, M.D.	x	x	x	x	x	x
MIDLAND						
H. L. Gordon, M.D.	x	x	x	x	x	x
MONROE						
S. N. Kelso, Jr., M.D.	x	x	x	x	x	x
MUSKEGON						
D. R. Boyd, M.D.	x	x	x	x	x	–
H. C. Tellman, M.D.	x	x	x	x	x	x
NEWAYGO						
J. P. Klein, M.D.	x	x	–	x	x	x
NORTH CENTRAL						
L. F. Hayes, M.D.	x	x	x	x	x	x
NORTHERN MICHIGAN						
Gerald Drake, M.D.	x	x	x	x	x	x
OAKLAND						
E. W. Bauer, M.D.	x	x	x	x	x	x
C. G. Burke, M.D.	–	x	–	x	–	x
H. A. Furlong, M.D.	x	x	x	x	x	x
M. A. Haanes, M.D.	x	x	x	x	x	x
P. T. Lahti, M.D.	x	x	x	x	x	x
G. N. Petroff, M.D.	x	x	–	x	x	–
W. J. Zimmerman, M.D.	x	x	x	x	x	x

County and Delegate	*1st*	*2nd*	*3rd*	*4th*	*5th*	*6th*
OCEANA						
W. G. Robinson, M. D.	Not represented					
ONTONAGON						
W. F. Strong, M.D.	x	x	x	x	x	–
OTTAWA						
Otto van der Velde, M.D.	x	x	x	x	x	x
SAGINAW						
J. P. Markey, M.D.	x	x	x	x	x	x
D. V. Sargent, M.D.	x	x	x	x	x	x
A. C. Stander, M.D.	x	x	x	x	x	x
ST. CLAIR						
John J. Coury, M.D.	x	x	x	–	–	–
K. W. Yost, M.D.	–	–	–	x	x	x
ST. JOSEPH						
S. A. Fiegel, M.D.	x	x	x	x	x	x
SANILAC						
K. T. McGunegle, M.D.	x	x	x	x	x	x
SHIAWASSEE						
C. L. Weston, M.D.	x	x	x	x	x	x
TUSCOLA						
L. L. Savage, M.D.	x	x	x	x	x	x
VAN BUREN						
F. J. Loomis, M.D.	x	x	x	x	x	x
WASHTENAW						
G. H. Bauer, M.D.	x	x	x	x	x	x
O. K. Engelke, M.D.	x	x	x	x	x	–
H. F. Falls, M.D.	x	x	x	x	x	x
R. W. Teed, M.D.	x	x	x	x	x	x
V. M. Zerbi, M.D.	x	x	x	x	x	x
WAYNE						
Sidney Adler, M.D.	x	x	x	x	x	–
W. W. Babcock, M.D.	x	x	x	x	x	x
L. J. Bailey, M.D.	x	x	x	x	x	x
G. S. Bates, M.D.	x	x	x	x	x	x
J. B. Blodgett, M.D.	x	x	x	x	x	x
W. L. Brosius, M.D.	x	x	x	x	x	x
D. A. Cameron, M.D.	x	x	x	x	x	x
C. L. Candler, M.D.	x	x	x	x	x	x
W. S. Carpenter, M.D.	x	x	x	x	x	x
R. R. Cooper, M.D.	x	x	x	x	x	x
R. T. Costello, M.D.	x	x	x	x	x	x
J. C. Danforth, M.D.	x	x	x	x	x	x
M. A. Darling, M.D.	x	x	x	x	x	–
H. F. Dibble, M.D.	x	x	x	x	x	–
L. S. Fallis, M.D.	x	x	x	–	–	x
H. B. Fenech, M.D.	x	x	x	x	x	x
E. H. Fenton, M.D.	x	x	x	x	x	x
R. F. Fenton, M.D.	x	x	x	x	x	x
G. S. Fisher, M.D.	x	x	x	x	x	x
H. M. Fuller, M.D.	x	x	x	x	x	x
J. D. Fryfogle, M.D.	x	x	x	–	x	x
P. C. Gittins, M.D.	x	x	x	x	x	x
B. M. Hamil, M.D.	x	x	x	x	x	x
C. K. Hasley, M.D.	x	x	x	x	x	x
Joseph Hickey, M.D.	x	x	x	x	x	x
Louis Jaffe, M.D.	x	x	x	x	x	x
J. A. Kasper, M.D.	x	–	x	x	x	x
E. G. Krieg, M.D.	x	x	x	x	x	x
E. H. Lauppe, M.D.	x	x	x	x	x	x
L. R. Leader, M.D.	x	x	x	x	x	–
M. L. Lichter, M.D.	x	x	x	x	–	x
R. L. Novy, M.D.	x	x	x	x	x	x
E. A. Osius, M.D.	x	x	x	x	x	x
C. I. Owen, M.D.	x	x	x	x	x	x
A. E. Palmer, M.D.	x	x	x	x	x	x
R. H. Pino, M.D.	x	x	–	x	x	x
A. E. Price, M.D.	x	x	x	x	x	x
W. S. Reveno, M.D.	x	x	x	x	x	–
F. P. Rhoades, M.D.	x	x	x	x	x	x
A. D. Ruedemann, Sr., M.D.	x	x	x	x	x	x
C. W. Sellers, M.D.	x	x	x	x	x	–
W. L. Sherman, M.D.	x	x	x	x	x	x
D. I. Sugar, M.D.	x	x	x	–	x	x
D. N. Sweeney, Jr., M.D.	x	x	x	x	x	x
E. J. Tallant, M.D.	x	x	x	x	x	x
E. C. Texter, M.D.	x	x	x	x	x	x
R. V. Walker, M.D.	x	x	x	x	x	x
M. R. Weed, M.D.	x	x	x	x	x	x
J. A. Witter, M.D.	x	x	x	x	x	x
D. A. Young, M.D.	x	x	x	–	x	x
WEXFORD-MISSAUKEE						
R. V. Daugharty, M.D.	x	x	x	x	x	x

II. IN MEMORIAM

As the first order of business, the names of the delegates who have passed away since the last meeting were read:

Barry County
Robert B. Harkness, M.D., Hastings
(Delegate 1940)

Bay County
Relza Newton Sherman, M.D., Bay City
(Alternate delegate 1942-43-44)

Berrien County
Franklyn A. Rice, M.D., Niles
(Alternate delegate 1950-51)
(Delegate 1952-53)
(Alternate delegate 1954-55)

Chippewa County
Clayton Willison, M.D., Sault Ste. Marie
(Alternate delegate 1944-45-46-47)

Kalamazoo County
U. Sherman Gregg, M.D., Kalamazoo
(Alternate delegate 1943-44)

Lenawee County
A. S. Pasternacki, M.D., Adrian
(Alternate delegate 1947)

Menominee County
Henry T. Sethney, M.D., Menominee
(Delegate 1940-41-42-43-44)
(Alternate delegate 1946)

Wayne County
Claire L. Straith, M.D., Detroit
(Delegate 1957)

THE SPEAKER: In addition, fifty-two MSMS members have passed away since we last met. I should like to ask this House if it will please stand for a moment in silence. I would like to have you not only remember and honor these people who have died, but also each in your own way to pray for divine guidance for the success of this meeting.

(Silent standing prayer)

THE SPEAKER: I think it would be appropriate if I read a cablegram received from Copenhagen, Denmark, from W. A. Hyland, M.D.:

> "All success to the MSMS House of Delegates in its deliberations on this 93rd anniversary. I am confident all questions will, by its wise and deliberate judgment, be resolved and MSMS will continue to lead the nation's state medical societies. Inasmuch as this is our second honeymoon, we cannot publicly report that we would prefer to be working in Detroit. However, Mrs. Hyland joins me in best wishes and says I'm doing all right."

We shall refer this to the Reference Committee on Officers' Reports.

III. SPEAKER'S REMARKS

By K. H. Johnson, M.D., Lansing

Each year since I have been a member of this House, there has appeared in the order of business a notation called "Remarks by the Speaker." In keeping with the very excellent training which I received from my predecessor, I have refrained from exercising my prerogative up to now. I can no longer restrain myself from this opportunity, since it is properly my last chance to speak. What I wish to say are my own thoughts, and have no relationship by design to any other remarks which may be made here today.

It has been a great privilege for me to have served as your Speaker. The greatest satisfaction has come from the chance to be associated with men who have been unselfish in their devotion to the principles of medicine.

I consider the members of this House as representative of this type. In spite of remarks I have heard to the contrary, I have never known this House of Delegates to vote an action because it was too tired or for any other reason than a belief that it was making the best decision from the facts at hand. I fiercely resent any suggestion that it has done otherwise. I am not unmindful that some of your decisions have been unpopular in certain quarters, but I sincerely attest to the fact that I believe each decision has been made on the merit of the proposition and not on an emotional basis.

It is only human, however, to find that sometimes under pressure a basic principle may be temporarily forgotten as we become embroiled in the urgencies of the question at hand. We physicians are still human and are no exceptions to this possibility. This is the reason I have chosen to speak at this time.

I believe there is only one criterion for the existence of the profession of medicine—how well does it serve the physical and emotional needs of people. The very word "profession" connotes a vow in the sense of a religious order or calling. There are very few physicians who considered any other motive than the opportunity to serve when they chose to study this art.

Historically and ethically, "service" has been the foundation which has built our profession. I am convinced that the day the amount of recompense received or the prestige attained becomes more important than the privilege to serve, that day marks the doom of the profession.

Of course there will be some alternative to take its place; in fact, there are many individuals and powerful groups who greatly prefer to see medicine relegated to the level of a glorified trade union or even to the status of a pawn to bureaucratic control. Our professional survival depends upon our giving the one thing that cannot be bought—service.

Nonetheless, we would be ridiculously stupid if we did not acknowledge that as a profession we are an intimate part of the socio-economic struggle. We cannot sit serenely content and watch the rest of the world go by and feel secure in our little world of make-believe. Further, we cannot hide behind the shield of a board, an academy or a society and thus be protected from what may happen to the profession itself. We shall survive or succumb together. There will be no chosen few.

The sooner this fact is accepted by every doctor of medicine, the sooner we shall cease all intraprofessional rivalry and get down to the business of protecting the profession and practice of medicine from all things which threaten its existence. We cannot, nor should we wish to, run away from the world of reality, but we can only take our rightful place in this world by being a united entity.

There are many inequities of circumstance in practice. There always have been, there always may be. It would take many brilliant minds to make all things equal. The fact of these inequities should not force us to sacrifice the basic reasons for our being a profession.

Inequities may be minimized or done away with by democratic process, but to overthrow basic principles simply to balance these inequities will result in chaos and eventual sacrifice of all we hold sacred. The difficulties and disagreements in any plan or proposal which involves 6,000 individual physicians in any field of endeavor may be quickly acknowledged.

Constructive criticism or suggestion has always been welcomed in this House, but there is no place here for ignorantly conceived nor emotionally reactionary schemes which set group against group and thus risk defeat of the profession and its purpose.

There is no group, no matter how fine its motives, that has the right to take over the duly constituted authority of this House of Delegates. I am not unmindful that each of us has another loyalty or several loyalties to other groups within the broad scope of the profession. We, here, are required to make decisions on the broad base line of what is best for the majority of the doctors in this State, constantly keeping in mind that all decisions must be carefully weighed in the light of our basic principle—how well does it serve the needs of people.

May I be excused for being quite blunt as I summarize the purpose behind my words. This House can function properly only through the method of objective reasoning and logical decision. We must listen carefully to each and all facts presented. We must be able to separate fact from pure emotional appeal or reaction. We must arrive at an opinion and then be willing to back it up.

I do not pretend in any way to try to dictate the course we should follow. I do firmly believe that we can arrive at the will of the majority by proper attention to democratic procedure. Your presiding officers are here to assist you in this endeavor, nothing more and nothing less.

Therefore, let us accept the challenge which our presence here denotes, as the duly elected representatives of all the physicians of this State. I have not spoken to you in this fashion because I have any doubt of the ability of this House to do the job well, only to set the stage for the serious work ahead. (Applause)

These remarks will be referred to the Reference Committee on Officers' Reports.

IV. PRESIDENT'S REMARKS

By George W. Slagle, M.D., Battle Creek

Normally, as your outgoing President, I would content myself with the platitudes common to such occasions, and sit down. Perhaps that is what I should do tonight; but certainly I cannot leave this office without expressing to you my appreciation for what has been a truly tremendous experience.

I have been invited to every area of Michigan, and I have traveled to nearly every area of the State. The friends I have made and the experiences I have had will always be remembered. The responsibilities of the MSMS Presidency also require visits to other states, and it has been my privilege to meet with these other states in their state and national medical meetings. This travel has taken time, effort and personal expense, all of which I expected to give when I accepted this office. The returns have been manyfold.

But one thing was common to every occasion, whether it was in a county medical society or the conclaves of the AMA in Washington, D. C., or in California. That common thing was a genuine respect and admiration for the Michigan State Medical Society. That feeling was so prevalent wherever I went that, if it hadn't been present, I would have been as surprised as one who sat down to a steak dinner and received no steak.

I have often asked myself what caused this universal commendation of my State Medical Society. I eliminated most answers. One stands out above the rest. I offer it now. The answer is you—and by "you" I mean the MSMS House of Delegates. "Michigan is always doing

things. Why?" The true answer invariably is, "The House of Delegates instructed it."

"Michigan has the best program on such-and-such." If you look up the answer, you will always find that the House of Delegates asked for it or approved it or provided funds for it.

My point is this: The MSMS House of Delegates is the combined voice of all the doctors of this State, and it has repeatedly led the way in the nation.

To my knowledge, the actions of this House have been invariably followed by other states, and you have never made a major mistake.

I say that holds true right up to the present moment. If I could put the message of every other state medical society and of the AMA to you in a single sentence, it would be: "Keep up the good work."

By saying these things I do not mean to diminish in any degree the luster that should and does belong to such men as Dr. Hyland, Chairman of the MSMS delegation to the AMA, and that delegation.

I could elaborate at length upon the high regard with which our Secretary, L. Fernald Foster, is universally held. And I would be remiss if I did not point to the confidence that our own members and the representatives of other states have in Bill Burns, our Executive Director, and Hugh Brenneman, our Public Relations Counsel.

In saying these things, I want you to know that I am only reporting, and I want to add my thanks to these people, to the Executive Committee of The Council, the individual Councilors, the MSMS committees, and the entire executive and secretarial staff for the very excellent work that they are doing in behalf of the medical profession.

Last year, in my talk as President-elect, I mentioned one project among others that I hoped could be forwarded during my term in office. This was the establishment of the Michigan Association of the Professions. You thought well of that idea, and the committee has followed through by instigating action whereby it is not unlikely that the professions of architecture, dentistry, engineering, law and medicine will soon have a working mechanism for cohesive action on matters of common interest. The recent survey of opinion of the medical profession, as well as the other professions, shows an overwhelming support for this project in each profession.

It is wonderful to know that within a reasonable time we will have a new home for the Michigan State Medical Society. You will hear more about that in a little while; but I think I should say that the days of work involved in finding the eminently suitable site by the Site Committee, and the work of the Big Look Committee in planning with our fine architect, will long be valued by the members of this Society.

Incidentally, yesterday it was my privilege to take part in the dedication of the Wayne County Medical Society's new building. It is a wonderful building, and I hope every one of you will have a chance to go through it. It is really built for service, and I am sure the members of the Wayne County Medical Society and the members of the Michigan State Medical Society (because they have been invited to participate in any of the Wayne County Medical Society's actions) will be served in the future by this wonderful David Whitney House.

I want to close with a tribute to the truly devoted work which has been done by the Medical Care Insurance Committee, headed by Dr. Max L. Lichter, and the Seal of Assurance Committee, headed by Dr. D. Bruce Wiley. You gave these Committees a job to do. They have done it handsomely.

The former committee of seven members has been in actual session a total of fifty-eight hours. This does not include travel time and time spent in preparation, which totals a great number of man-hours. The latter Committee undertook the almost impossible task of presenting your program to the membership in a fair and unequivocal fashion.

Despite the many new factors evolved by your Statement of Principles, which require a rather competent knowledge of insurance principles to completely understand, it has been heartwarming to me to see that the majority of members of our State Society have agreed to participate in these Principles with you, that actuaries have found the contracts based on these Principles to be sound, and that the public has welcomed the participation of the doctors by buying the contracts.

It is true that a small minority has strenuously opposed this plan. This group has not been exactly silent nor excessively modest in their disapproval. However, I do hope that with patience and thoughtful consideration you will obtain from them the particular points of the M-75 contract which they disparage.

Also, I hope that you will take steps to see that these points are carefully studied by the most adequate surveys and authorities available. Indeed, the Executive Committee of The Council, and The Council itself, have already asked that such research be carried on.

I hope that as time goes on and experience through use is gained, that through the mechanisms set up we can make necessary changes. These will make it possible for the public to be happy as they have been in the past with the fact that Blue Shield is indeed a shield against the cost of medical care—and for both the public and the profession serves as a shield against socialized medicine and other varieties of controls that would harm our patients and hurt our profession.

I am positive of one thing: Our membership does not want to lose Blue Shield.

In opening this conference, Dr. Johnson called for us to consider these matters without name-calling and personal innuendoes. I am sure his words were prompted by such letters as these:

> "Dear Sir:
>
> "Let's face it. This is not 'our' plan—it is one cooked up by a group of frightened old men at the behest of Walter Reuther. It is time we had a face-lifting of the so-called directors of the State Society, because you certainly don't represent us. Yours until a new election."
>
> * * *
>
> "Dear Doctor:
>
> "I want to register a strong protest to utilizing the MSMS Journal to sell insurance, as you have in the June 1958 issue. I never have been treated to the invective and veiled threats from anybody before that were contained in that issue.
>
> "I have fought ever since entering the practice of medicine against socialization and the interposing of a third party in the practice of medicine, and I can tell you it will take more than the incredible articles and editorials in the MSMS Journal to bow to labor and management and simply become fringe benefit No. 1001.
>
> "You cannot tell me that anything in the 'Blues' plans is the unified thinking of the MSMS, because even with threats and cajolery you only passed the 50 per cent mark in signing up doctors last Friday. A good part of our skepticism is due to your steamroller tactics. . . .
>
> "Wipe us out as the Russians did Nagy, but you'll never have a clear conscience. Don't ever utter a public complaint against socialized medicine, because you'll choke on your own words."

Reports to come to you later will reveal the present status of the program and how The Council, the officers and the committees have been carrying out your instructions of a year ago. Be that as it may, I too urge upon you thoughtful consideration of all the resolutions brought before you.

You are men of good will. You have repeatedly

demonstrated your progressive wisdom. I have no fear for the future, and I am sure that when I turn over this royal purple insignia to Dr. Saltonstall on Wednesday next, you will be giving with it the practical and sincere directives that have always characterized this forthright House of Delegates. *(Applause)*

THE SPEAKER: Thank you, Mr. President. This address will be referred to the Reference Committee on Officers' Reports.

V. PRESIDENT-ELECT'S REMARKS

By G. B. Saltonstall, M.D., Charlevoix

The Michigan State Medical Society is entering upon its ninety-fourth year. I am sure nothing I might say or do can keep it from continuing for another year, and next year about this time a new President-elect will be standing before you as I am, proud and happy at the honor accorded him, and filled with a desire to do the best he can to lead the State Society to ever greater accomplishments.

What I am saying is this: The Michigan State Medical Society is no one man nor group of men. It is an institution which has existed down through the years because there was a need for it, and because it met that need.

The need for the Michigan State Medical Society still exists. In a state which is as prone to dynamic change as is Michigan, in a period when the cross-currents of public opinion are in marked conflict, at a time when powerful pressure groups are exerting political, social and economic influences to a greater extent than ever before, it is obvious to even the most casual observer that the medical profession must be organized statewide as a single well-integrated unit, speaking with a powerful voice and acting with vigor and dispatch. To do otherwise means chaos. And with that chaos will come loss of the respect which our predecessors have gained for us, and the defeat of our efforts to give maximum medical care, advice and service to our patients.

I repeat: The need for the Michigan State Medical Society still exists—perhaps more so today than ever before.

Our task in the next few days, then, comes into sharp focus. We are here to work together to outline and adopt those policies and plans for the Michigan State Medical Society which will gain for all members of our profession maximum opportunity to serve their patients. In accomplishing this we must keep in mind three basic thoughts:

1. That every practicing doctor of medicine has a service to render and has people who need those services.

2. That it is a doctor's privilege to advise and care for his patients in accordance with his best judgment within the limits of his abilities.

3. That all the doctors in this State, through the democratic process, can arrive at joint action whereby medical service can be made fully available to those who cannot pay and, for those who can pay, at a price that is fair to doctor and patient for the service rendered.

These comments seem too basic to even be argued—but they are too often forgotten. They are overlooked most often when we lose broad perspective and replace it with tunnel vision, when we fail to see the broad picture and focus our thinking on a separate segment—whether that segment be medical, geographical or economic in nature. It is then, and only then, that we divide and turn on one another—and in the process weaken our total defense against those who are constantly trying to control us.

I have no fear that we will solve the economic problems that face us at this meeting. We have been elected, individually, under the democratic process so that we might exercise our own personal judgments to gain that end among others. We would not have been chosen if our fellow members did not have confidence in our judgment and our capacity to exercise it in behalf of the total public and the total profession.

It is customary for the President-elect, as he is about to enter upon the Presidency, to point to the program and objectives which he hopes the Society might gain during his year in office. For my part, I hope we do not embark on any great new project this year. I would like to see this year be one where we catch up with ourselves, so to speak, and solidify the gains we have made.

We have embarked upon a path to improved service under our Blue Shield banner. It's a little thorny right now, but I would like to see this program improved and resolved and, most of all, understood.

As we have met our commitments, our obligations and our challenges over the past several years, our committee structure has grown to unwieldly proportions, and I would like to see it proportioned and patterned for greater efficiency.

We have started a movement toward greater cohesion of effort among the professions through the inauguration of the Michigan Association of the Professions. I would like to see this organized effort become firmly established and operating.

There are many areas, some of them minor, perhaps, where there is conflict of opinion between members of our profession, occasioned not by faulty or diverse judgment but by a paucity of facts. I believe we need studies and searching surveys to find those facts. I am sure all of us believe in the same basic principles of freedom to practice in accordance with proven concepts.

The cost of communication is rising, but I think this cost is unescapable, and I believe we should follow through on our well-considered plans to keep the public and the profession informed.

These are not dramatic things, but I guess I am more of a barbershop harmony than I am a soloist, and we can have harmony only when we work together. I have every confidence in our staff. They have proven themselves; and to say more about them, except through prohibitively time-consuming review, might have the effect of damning by faint praise.

In summary, I reiterate that as MSMS President in this ninety-fourth year I hope to see the great institution that the Michigan State Medical Society has become continue to be the single unit about which the medical profession of this State can rally. That, to keep it so, you in your own good judgment and with broad perspective adopt policies and programs that will permit all doctors of medicine to serve, within the limits of their judgment and abilities, all the people of this State and be reasonably remunerated for their efforts. And that, during the coming year, we consolidate our gains, obtain maximum understanding, and lay organizational and informational groundwork that will encourage continued growth in the future so that we may better serve the public good and promote the professional welfare.

To this end I pledge my administration. *(Applause)*

THE SPEAKER: Thank you, Dr. Saltonstall. This address will also be referred to the Reference Committee on Officers' Reports.

VI. REPORTS OF THE COUNCIL

By D. Bruce Wiley, M.D., Utica

The annual report of The Council is printed in the Handbook, beginning on page 51. The Council wishes to present the following supplemental report as of September 28, 1958—and we finished this session just a few minutes ago.

You may wish to follow along with the report of The Council so that you can see what changes there may be coincident with the supplemental report.

1. *Membership.*—On September 1, 1958, the membership of the Michigan State Medical Society totaled 6,381 as compared with the total of 6,400 at the same time last year.

2. *Finances.*—

FINANCIAL REPORT FOR PERIOD ENDING AUGUST 31, 1958

	On Hand 12/1/57	Income to 9/1/58	Expenses to 9/1/58	Balance on Hand 9/1/58
General Fund	$133,962.62	$160,177.95	$109,094.09	$185,046.48
Annual Session	———	26,882.50	4,822.70	22,059.80
Michigan Clinical Institute	———	13,080.00	15,740.77	2,660.77Cr.
The Journal	———	100,325.36	86,007.73	14,317.63
Public Education	40,765.04	34,934.56	36,657.70	39,041.90
Public Service	2,761.86	19,516.64	20,697.79	1,580.71
Professional Relations	4,423.70	29,285.82	28,799.04	4,910.48
Public Education Reserve	74,084.00	16,734.75	———	90,818.75
Rheumatic Fever Control	570.60Cr.	6,755.12	7,424.22	1,239.70Cr.
Surplus from Dues	53,614.34	———	———	53,614.34
Building Fund	16,983.53	11,149.27	3,193.56	24,939.24
MSMS Headquarters Fund	28,135.00	56,082.81	———	84,217.81
TOTALS	$354,159.49	$474,924.78	$312,437.60	$516,646.67

3. *Michigan Medical Service.*—An up-to-date report on this Corporation, including the finances, will be presented to you at the meeting of Michigan Medical Service membership on Tuesday, September 30 at 2 p.m. in the headquarters of Michigan Medical Service, 441 East Jefferson Street, Detroit. All MSMS delegates are members of Michigan Medical Service Corporation and are expected and urged to attend this important annual meeting, which will be preceded at 12:30 p.m. by a tour of the building, a reception and luncheon with the compliments of Michigan Medical Service.

High commendation of the Michigan State Medical Society goes to Michigan Medical Service for herculean efforts and successful labors in behalf of the medical profession in the Medicare and the Veterans Administration Home Town Medical Care programs.

4. *Michigan's Foremost Family Physician of 1958.*—Selection of one of our Michigan general practitioners as nominee for the American Medical Association Gold Medal Award is the privilege of the MSMS House of Delegates. According to established procedure, the field of nominees has been narrowed by The Council to three, from which the House of Delegates elects one. The three nominees are:

(a) William P. Bope, M.D., Decatur
(b) Fred J. Drolett, M.D., Lansing
(c) Louis K. Peck, M.D., Barryton

5. *MSMS Health and Accident Insurance Program.*—The report to September 1, 1958, supplied by the carrier (Provident Life and Accident Insurance Company of Chattanooga, Tennessee) is as follows:

"Both participation and benefit payments are at an all-time high.

"Approximately one in each seven insured members has occasion to call upon his protection each year.

"While benefit payments are up, only one accidental death payment was made in the past year as compared to four in the previous year.

"For those who received benefits for claims of more than thirty days' duration, the average paid per claim last year was $1,917.34.

"There were forty-two claims in process on September 1, 1958."

6. *New Home of the Michigan State Medical Society.*—As indicated in the Annual Report of The Council, the Committee on "Big Look" will submit up-to-the-minute plans on proposals for the new MSMS headquarters building. We invite the members of the House to listen attentively to the program outlined by Committee Chairman William S. Jones, M.D., and to study the scale model which will be displayed and explained by the architectural firm of Yamasaki, Leinweber & Associates.

7. *Group Life Insurance for MSMS Members.*—The Annual Report of the Committee on Study of Insurance Programs for MSMS Members is incorporated in these minutes (report No. 26). The favorable consideration of the House of Delegates to the Committee's recommendations concerning group life insurance for MSMS members is invited, to the end that MSMS can offer as an added benefit of membership a fine group life program tailored to the needs of Michigan's medical men.

8. *IBM History Cards of MSMS Membership.*—These have just been printed and will be sent soon to all members in a special mailing to insure a high percentage of return.

The Council has sent quantities of these history questionnaires to all component societies, to be used in connection with membership applications for all NEW members, with the request that each county society include this as part of its application for membership.

9. *Resignation of Councilor.*—Joseph F. Beer, M.D., Councilor of the Seventh District, has been forced to resign his post due to illness. The Council placed on its minutes a vote of high thanks to Dr. Beer for his progressive activity on behalf of the Society, and sincere wishes for a speedy recovery.

10. *Michigan Association of the Professions.*—This organization was first recommended by George W. Slagle, M.D., in his inaugural address to the House of Delegates in 1957. Following approval of Dr. Slagle's suggestion by the House of Delegates, The Council authorized action, in February, 1958, to form such an organization.

As a result, the following organizations have been contacted: The State Bar of Michigan; the Michigan Society of Professional Engineers; the Michigan State Dental Association, and the Michigan Society of Architects.

Each of these organizations appointed top-level committees for the purpose of establishing such an organization, to work out details of organization, and to study the possible services which such an organization might render.

The respective Boards of Directors are now being asked to accept membership in the MAP when it is formally established on November 23, 1958. In the meantime a survey is being conducted of the memberships of the respective professions of medicine, dentistry, architecture, engineering and law. Early returns from the survey indicate an overwhelming approval of such an organization on the part of the respective memberships of each of these professions.

11. *Medicare.*—The revised Medicare contract, effective April 1, 1958, includes cutbacks in services that render this program less valuable and effective to the recipients. Criticisms from these folks, most of it leveled against the medical profession, will undoubtedly result.

The Council, therefore, recommends that a resolution adopted by the South Dakota State Medical Association (see addenda) be supported by the AMA delegates from Michigan, and further that one MSMS delegate from Michigan be authorized to attend an AMA-sponsored meeting on this subject to be held in Minneapolis on December 1, 1958.

12. *Additional Annual Reports of Committees of The Council.*—Since July the following annual reports of Council committees have been submitted and are presented for consideration of the House of Delegates:

Report No. 25—Committee on Awards.—In 1958 the Awards Committee recommended that thirteen individuals be recognized and honored by the Michigan State Medical Society midway during the Michigan Clinical Institute when the medical profession traditionally pauses to salute those who have made contributions in the broad field of health.

At the testimonial luncheon scrolls were presented to the following: O. A. Brines, M.D., Detroit, President, International Society of Clinical Pathology; A. C. Furstenberg, M.D., Ann Arbor, Dean, University of Michigan Medical School; Edgar A. Kahn, M.D., Ann Arbor, President, Society of Neurological Surgeons; Joseph G. Molner, M.D., Detroit, author of a nationally syndicated medical column; Grover C. Penberthy, M.D., Detroit, Chairman, Selective Service in Michigan, and Paul Van Riper, M.D., Champion, Michigan's Foremost Family Physician for 1957.

In addition, William J. Burns, MSMS Executive Director, was recognized as an Honorary Member of MSMS, an honor accorded him by unanimous action of the 1957 MSMS House of Delegates. *The Battle Creek Enquirer and News* was saluted for sponsoring a series of public health forums. For co-operation in telecasting the 1957 public colorcast of live heart surgery, WWJ-TV was presented with a scroll of appreciation. Four State legislators were honored for their long-time support of health-welfare legislation in Michigan: Senator Lewis G. Christman, Representative Louis C. Cramton, Senator Haskell L. Nichols, and Representative Harry J. Phillips.

Report No. 26—Committee on Study of Insurance Program for MSMS Members.—Studies were made of (1) the desires of MSMS members for group life insurance under MSMS sponsorship, and of (2) all the possible varieties of such insurance that the MSMS could make available to its members.

As a result, the Committee recommended that a plan offered by the Mutual Benefit Life Insurance Company of New Jersey be approved and offered to the membership of MSMS. This plan consists of low-cost group renewable term life insurance which can be converted to any type of permanent life insurance without evidence of insurability. (See plan in addendum.)

Report No. 27—Committee on Blood Banks.—No problems have been forwarded to us. At the present time the blood banks of Michigan are undergoing a voluntary inspection program, under the auspices of the North Central District Blood Bank Clearinghouse. This eventually will be a national inspection program to improve the quality of blood banking and facilitate the exchange of blood.

Report No. 28—Supplemental Report of Public Relations Committee.—Although many items were reviewed by the Public Relations Committee at its meeting on August 17, 1958, only two items need particular mention at this time:

(a) That in view of the success of the exhibits at the Michigan State Fair and the Lansing Homerama and elsewhere, county medical societies be encouraged to exhibit at local fairs and meetings, with the aid and advice of the Michigan State Medical Society when desired.

(b) That the MSMS carry out research on matters of current interest to the medical profession in the field of medical economics, and that a part of the time of the secretary to the Medical Care Insurance Committee be made available to assist in making and correlating such research.

Report No. 29—Supplemental Report of Special Committee to Study Medical Malpractice Problems.—In the June 1958 JOURNAL (page 804) our report was printed in full. It would appear that certain actions are in order:

(a) Our two medical schools should be requested to review the recommendations and decide whether the suggestions made merit inclusion in the medical curriculum during the junior and senior years.

(b) The thirty prevention standards, as outlined, should be placed in the hands of each doctor of medicine when he joins his county medical society.

(c) Each hospital staff should review the prevention standards as a part of the intern and resident teaching program and should give each admission to the staff a copy of the above-mentioned standards.

(d) The Michigan State Medical Society should not consider entering the medical protective insurance field but encourage each physician to review his insurance needs as well as to concentrate on prevention.

Report No. 30—Medical Care Insurance Committee.—This Committee was charged with the responsibility of implementing the Statement of Principles on Prepaid Medical Care adopted by the House of Delegates in September, 1957.

Since then the Committee has averaged more than one meeting per month for extended sessions, during which representatives of various groups having special interests, individual doctors of medicine, officers of MSMS and Michigan Medical Service were of valuable assistance to the Committee in discharging its responsibility.

In meticulous detail the Committee scrutinized the new contract of Blue Shield as it developed. It also recommended necessary modifications in the California Relative Value Scale and established dollar unit values, both of which actions received the concurrence of the Permanent Advisory Committee on Fees.

The Committee recommended the endorsement of the new Michigan Medical Service contract as complying in every detail with the MSMS Statement of Principles.

To assure a closer liaison between practicing physicians, MSMS and the carrier (Blue Shield), this Committee has developed the work and responsibilities of Councilor District Medical Care Insurance Committees as directed by the Statement of Principles. These local Committees have been appointed by The Council, and their activity during the coming year will be co-ordinated with the work of the MSMS Medical Care Insurance Committee.

By this and other means, a continuing review of the Seal of Assurance Plan will be made, and a direct line of communication established from the individual doctor of medicine to this Committee, the permanent Advisory Committee on Fees, and The Council.

The Council, at its September 28, 1958, meeting, directed the Medical Care Insurance Committee to develop the Michigan Relative Value Scale.

Report No. 31—MSMS Liaison Study Committee on Hospital Staff Payments.—Committee held two meetings in recent months and considered the present practice of handling staff cases at Detroit Receiving Hospital, Wayne County General Hospital, Woman's Hospital and Harper Hospital, and three clinics. After full discussion of the over-all Michigan Medical Service problem of handling the present arrangement for payment of hospital staff cases, the following resolution was adopted:

"WHEREAS, attention of the Michigan State Medical Society has been invited to the problem of payment for medical and surgical services rendered by interns and residents, and

"WHEREAS, the medical profession has traditionally been opposed to payment of services so rendered, and

"WHEREAS, such payments can be construed as a definite threat to the private practice of medicine; therefore, be it

"Resolved: That Michigan State Medical Society go on record as condemning as unethical practice the collection of, or the attempt to collect, fees for services rendered by interns and residents unless such services are rendered under direct supervision of and upon the responsibility of a staff member of a hospital having an American Medical Association approved training program, and which staff physician is also engaged in the active practice of medicine, and unless the fees so collected are devoted to furtherance of medical education and research; and be it further

"Resolved: That the Michigan State Medical Society implement this resolution through its own organization, and that it use its best efforts to further implement this resolution through the House of Delegates of the American Medical Association, the Council on Medical Education and Hospitals of the American Medical Asssociation, the Joint Commission on Accreditation of Hospitals, and the governing boards of hospitals in Michigan."

Report No. 32—Committee on Vocational Rehabilitation.—During the past year your Committee met with representatives of the State Office of Vocational Rehabilitation for a discussion of Public Law 880 and of mutual problems in the medical phases of vocational rehabilitation.

One glaring inequitable procedure resulting from the new Old Age and Survivors Insurance Disability program (P.L. 880) is the following: The individual seeking aid must supply medical evidence, sufficient to make the diagnosis, at his own expense. If not available, this information must be secured from the family physician or hospital *at no expense to the government.* Subsequently, to check the original record the government may authorize consultative examinations, using the Uniform Fee Schedule for Governmental Agencies as the basis of cost.

The Committee felt this arrangement was definitely unjust to the family doctor, and decided to communicate with the AMA committee considering this subject, to protest the unfairness of this arrangement and to seek a possible remedy.

The Committee recommended that the 20-page booklet, "Disability and Social Security—Evaluation of Disability," be obtained from the Office of Vocational Rehabilitation and be distributed to all MSMS members.

In discussing rehabilitation training, the Committee recommended that, in sending a physician's medical records to consultants, the name of the family physician be deleted.

Topics for future discussion between the MSMS Committee and the Office of Vocational Rehabilitation are: (a) Role of the Office of Vocational Rehabilitation in treatment of disability prior to acceptance of the case by OVR. (b) Review district operations—local, medical consultants' activities, what is being accomplished, what is the proper goal, etc., and (c) Referral under Public Law 880 for Rehabilitation in OVR Districts.

13. *Seal of Assurance Program.*—A report on participation in the Seal of Assurance Program will be presented to the House of Delegates by the Chairman of a Special Audit Committee appointed by Speaker K. H. Johnson, M.D.

In addition, a report from the Chairman for Michigan of the American Medical Education Foundation, as presented to The Council on July 17-18, is submitted to the House of Delegates without recommendation (see addendum).

14. *Recommendations.*—We respectfully invite your attention to the two recommendations in the original Annual Report of The Council, printed in the Handbook on page 80. They read as follows:

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1959 on the occasion of the Annual Michigan Day, as recommended by last year's House of Delegates.

2. That every member of the Michigan State Medical Society be urged to become affiliated with the Beaumont Memorial Foundation either as a Life Member ($100) or a Sustaining Member ($5 per annum).

The Council respectfully submits three additional recommendations:

3. That The Council be authorized to institute necessary research in the economic aspects of the practice of medicine as these factors pertain to administration of medical service and insurance programs.

4. That The Council be authorized to arrange councilor conferences prior to the Annual Session, to continue communication with and to impart information to the membership.

5. That The Council, having approved the architect's final preliminary plans for the new MSMS building, respectfully recommends their adoption by the House of Delegates.

Respectfully submitted by The Council:

D. Bruce Wiley, M.D., *Chairman*
W. B. Harm, M.D., *Vice Chairman*
A. E. Schiller, M.D.
O. B. McGillicuddy, M.D.
H. J. Meier, M.D.
Ralph W. Shook, M.D.
C. Allen Payne, M.D.
H. H. Hiscock, M.D.
J. F. Beer, M.D.
E. S. Oldham, M.D.
D. G. Pike, M.D.
O. J. Johnson, M.D.
W. M. LeFevre, M.D.
B. T. Montgomery, M.D.
T. P. Wickliffe, M.D.
B. M. Harris, M.D.
G. Thomas McKean, M.D.
William Bromme, M.D.
K. H. Johnson, M.D., *Speaker*
J. J. Lightbody, M.D., *Vice Speaker*
G. W. Slagle, M.D., *President*
G. B. Saltonstall, M.D., *President-elect*
L. Fernald Foster, M.D., *Secretary*
W. A. Hyland, M.D., *Treasurer*
Arch Walls, M.D., *Immediate Past President*

D. Bruce Wiley, M.D.: Mr. Speaker, there are two addenda to the Supplemental Report that I would like to present to the House at this time. The first is a report of the Michigan Chairman of the American Medical Education Foundation. I would ask the privilege of havnig Dr. Rhoades, the Michigan Chairman, present this report to the House.

American Medical Education Foundation —Supplemental Report—

F. P. Rhoades, M.D.: The American Medical Education Foundation is desperately in need of additional funds for the medical schools. The 6,000 physicians of Michigan represent 4 per cent of the membership of the American Medical Association, yet the $10,000 contributed last year to the AMEF by the 6,000 Michigan physicians averaged only $1.50 per physician. Our fair share should have been at least $40,000. If we were to contribute our 4 per cent of the $10,000,000 needed, we would have to raise $400,000 or approximately $66 from each physician.

In view of the fact that we succeeded in raising only $1.50 per physician last year, this goal is unrealistic. Through a $10 assessment or voluntary contribution we could raise our fair share of the $1,000,000 that is currently being contributed by the physicians of the American Medical Association. This $60,000 would represent over six times what we are now raising in Michigan.

Voluntary dues increase plans have been adopted by several states:

Pennsylvania	$25.00
New York	10.00
District of Columbia	25.00
Delaware	20.00

The following states have direct dues increases for the AMEF:

State	*Dues*	*Portion Earmarked for AMEF*
Illinois	$ 40.00	$20.00
Arizona	70.00	10.00
Utah	70.00	20.00
Idaho	40.00	10.00
Nevada	100.00	20.00
California	50.00	10.00
New Jersey	35.00	5.00

The Michigan State Medical Society has consistently been a leader among the other state medical societies. We have always been proud of our many contributions to the progress of organized medicine. In the field of financial support of our medical schools we have fallen far short of the national average. Therefore, either a voluntary contribution of $10 should be imprinted upon our membership statement, or the House of Delegates should vote an increase of $10 in the state dues, to be earmarked for the American Medical Education Foundation.

The Speaker: I should like to refer this portion of the report to the Reference Committee on Resolutions.

Medical Care Insurance Committee —Supplemental Report—

D. Bruce Wiley, M.D.: Mr. Speaker, during the past year the Medical Care Insurance Committee of the Michigan State Medical Society has done a great deal of work, holding monthly meetings and over week-ends, and from their studies and activities they have compiled a very extensive report of factual information which is of value to all of us in our consideration of our present problem.

Mr. Speaker, I would like to ask permission to have the Chairman of the Medical Care Insurance Committee, Dr. Lichter, report this addendum to the House of Delegates.

The Speaker: Dr. Wiley, the request is granted. I believe it would be much more appropriate if this were presented tomorrow along with the committee reports, however. Unless this House prefers that it be presented tonight, that will be the ruling of the Chair. I hear no objection, so this report will be presented tomorrow.

D. Bruce Wiley, M.D.: Thank you, Mr. Speaker.

The other addenda are attached to the supplemental report of The Council and have been referred to the Reference Committee.

VII. REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

The Speaker: On page 83 of the Handbook, you will find the report of the delegates to the American Medical Association. As we have learned, Dr. Hyland is busy in Copenhagen and other places, but I will ask if there is an additional report at this time. Hearing none, this report will be referred to the Reference Committee on Officers' Reports.

On page 61 is the annual report of the Woman's Auxiliary. Mrs. Payne, the President, will present an additional report.

VIII. REPORT OF WOMAN'S AUXILIARY TO MSMS

Mrs. C. Allen Payne (Grand Rapids): The Woman's Auxiliary is most appreciative of this opportunity to tell you of some of their activities and accomplishments this past year. This report represents the combined efforts of all Auxiliary members.

At present we have more than 3,150 members in forty-seven county groups. One new county auxiliary was organized this year. Increased interest in raising funds for the American Medical Education Foundation has been evidenced this year. Thirty-eight counties have contributed $3,564.33; the State Auxiliary has contributed $351.81.

Today's Health magazine, published by the American Medical Association for the American family, is enjoying increased sales and popularity among our members. Recruitment of medical associates continues as a primary project in Michigan. This program presents an opportunity to serve our communities, our young people, and our husband's profession at one time. This year, money contributed for loans and scholarships came to a grand total of $9,789. With our help, seven degree, forty-eight registered and twenty-four practical nurses were graduated. One medical technologist scholarship was given this year.

Public relations, which is the service one gives to his community in health education, practice of good citizenship, and civic and cultural activities, is of primary importance to Michigan Auxiliary members. The many hours of volunteer service every doctor's wife contributes to her community, whether through her church, school PTA, or organized community health agency, hospital, farm, civic and cultural groups, cannot be measured in time or money.

Great interest in Science Fairs and in organizing Career Days for high school students has been evidenced this year. Our Tuberculosis Speaking Project, which is co-sponsored annually with the Michigan Tuberculosis Association, again had a most fruitful year; 2,500 students took part in the contest through the participation of eighty-seven schools.

Home safety, water safety and accident prevention have been stressed in Michigan this year. Interest in the State now centers on chemical tests for intoxication, education of problem motorists and violators, driver licensing, and improvement of driver education services.

The Michigan Auxiliary is a member of the Michigan Health Council and a co-sponsor of the Michigan Rural Health Conference. This year three Auxiliary members are serving on an Advisory Committee to the M.D. Placement Program. Two Auxiliary members have been named to the Health Careers Committee of the Michigan Health Council.

Auxiliaries to the Student American Medical Association are fully organized at both medical schools in this State. The Auxiliary paid the expenses for a representative of each group to attend the constitutional convention for the Auxiliary to SAMA in Chicago in May.

The Auxilium is the new name for our official State Auxiliary publication. It is published three times a year and is sent to the full membership.

Your Auxiliary has continued to enjoy a close working relationship with the Advisory Committee of the Michigan State Medical Society. The Auxiliary President has met with Dr. E. H. Fuller, Chairman, frequently, and sought advice and guidance in regard to related projects. The Auxiliary is greatly appreciative of the efforts of Dr. Fuller and his Committee.

The future of our organization holds great promise for added achievement and service. For your past support

and encouragement we are most grateful, and we look to you for continued guidance.

Thank you again for allowing me to give you this brief summary of your Auxiliary's activities. *(Applause)*

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

IX. REPORT OF THE MICHIGAN STATE MEDICAL ASSISTANTS' SOCIETY

MISS MARLOUISE REDMAN [Detroit]: During the past year, representatives of the Michigan State Medical Assistants' Society have attended various functions of the Michigan State Medical Society. A special meeting was called at the request of The Council to acquaint our component societies with the Seal of Assurance program.

Last October, eight members of the Michigan State Medical Assistants' Society attended the annual meeting of the American Association of Medical Assistants in San Francisco, California. Next month, our delegates will join members of other state organizations at the national meeting in Chicago, Illinois. At this time, there are twenty states that have joined the American Association of Medical Assistants. At the meeting in Chicago, one of our members will present a paper, and we shall also submit a bid to hold the 1960 annual meeting in Detroit.

Two Presidents' Conferences and an Educational Seminar were held this year. "Legislation" was the theme of the program presented by Drs. Kenneth Johnson and Lawrence Drolett. Seventy-four officers and committee chairmen, representing sixteen component societies, attended the meeting, which was held in Jackson.

In April, eighty members listened to the staff of the Michigan State University lecture on the subject of "Leadership." This conference was held at the Kellogg Center on the campus in East Lansing.

"Two Sides of the Desk" was the theme followed by the University of Michigan at our Educational Seminar, which was held at the same time as the Michigan Clinical Institute. One hundred eighty people were present at this first annual seminar, which was held at the Fort Shelby Hotel in Detroit.

The Bulletin, official publication of the Michigan State Medical Assistants' Society, has been printed quarterly, and we have been fortunate in having Miss Marie Erickson as business manager for our first attempts at soliciting advertisers. We feel that *The Bulletin* affords us the opportunity to reach our members with informative and educational information. We are grateful to The Council of the Michigan State Medical Society for their approval to have Addressograph plates made for our use for *The Bulletin* and other mailings.

The Educational Committee, with the help of our Advisory Board and the Extension Service of the University of Michigan, is sponsoring a program of "In-Service Training for Medical Assistants." The University of Michigan is conducting pilot study courses in six areas—Battle Creek, Detroit, Flint, Jackson, Lansing and Pontiac. Each of these courses will meet for sixteen two-hour sessions, and upon completion of the pilot program published courses of study will become the property of the Education Committee of the Michigan State Medical Assistants' Society.

The Michigan State Medical Assistants' Society has had the assistance of Mr. Jack Pardee, of the Public Relations Department of the Michigan State Medical Society, and we are indebted to the many hours that he has given in our behalf.

The number of component societies has increased this year, with St. Clair and Washtenaw Counties holding regular meetings and Lenawee and Barry Counties having held their organizational meetings. To date we have 940 members, 649 old members and 291 new members. The annual reports of the presidents of the component societies and the officers and committee chairmen of the State Society will be compiled and mailed to each member of our organization.

The Michigan State Medical Assistants' Society greatly appreciates the interest and confidence of The Council of the Michigan State Medical Society. We are grateful to the county medical societies, the Michigan Medical Service representatives, and the drug detail men who have helped to acquaint interested persons with the purposes of the Medical Assistants' Society.

We would like to take this opportunity to invite you to attend the functions of our Ninth Annual Convention. We will be happy to greet you at the Statler-Hilton Hotel on Wednesday and Thursday of this week.

THE SPEAKER: This report will also be referred to the Reference Committee on Officers' Reports.

X. MICHIGAN MEDICAL SERVICE REPORT

On page 96 of the Handbook, there is a report on Michigan Medical Service. This report will be referred to the Reference Committee on Miscellaneous Business.

XI. SELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

Each year at this time we enjoy the privilege and have the responsibility of awarding some of our distinguished members of the State Society for their accomplishments. In order to do this we first must select Michigan's Foremost Family Physician.

As you know from the Report of the Council, three names have been submitted. It is the duty of this House to select one man to be the Foremost Family Physician. *(Dr. Slagle read the information on each of these candidates.)*

THE SPEAKER: I shall appoint tellers, who will act as the official tellers for the duration of this meeting of the House. The tellers will be Dr. Sweeny, Dr. Fuller, Dr. Daugherty and Dr. Weston.

(Balloting)

THE SPEAKER: I am happy to announce that the vote indicates that Dr. Drolett has been selected as Michigan's Foremost Family Physician. *(Applause).*

XII. FIFTY-YEAR AWARDS

THE SPEAKER: We have another very delightful privilege each year, that of recognizing the men who have practiced for fifty years. I shall ask our President, Dr. Slagle, and our Vice Speaker, Dr. Lightbody, to initiate these gentlemen into this rugged order of individualists.

(The following members were presented with Fifty-Year Awards and pins:

William J. Cassidy, M.D., Detroit
Wayne A. Cochrane, M.D., Jackson
Fred H. Cole, M.D., Detroit
Clayton J. Ettinger, M.D., Detroit
Samuel Glassman, M.D., Detroit
Bernard H. Glenn, M.D., Fowlerville
Lloyd W. Howe, M.D., Marquette
Mark Marshall, M.D., Ann Arbor
J. Earl McIntyre, M.D., Lansing
Harriet E. McLane, M.D., Detroit
Daniel J. O'Brien, M.D., Lapeer
J. M. Robb, M.D., Detroit
Susanne M. Sanderson, M.D., Detroit
Leal K. Slote, M.D., St. Joseph
Andrew L. Swinton, M.D., Marquette
Henry L. Ulbrich, M.D., G. P. Woods
Paul Van Riper, M.D., Champion
(The House arose and applauded)

THE SPEAKER: I am sure, gentlemen, I express the sincere congratulations of the entire members of the

House of Delegates, representing all the doctors of the State of Michigan, to these gentlemen for their very fine achievement of having reached fifty years of service in the practice of medicine. *(Applause)*

XIII. SUPPLEMENTAL ANNUAL REPORT OF BIG LOOK COMMITTEE

William S. Jones, M.D. [Menominee]: As you know, last year the House of Delegates authorized The Council to buy property and prepare plans, and they provided the funds to build a new home for the Michigan State Medical Society. This need has been recognized over a period of years.

I can remember some twenty-three years ago when we had space in Lansing approximately one-third the size of this room in which to house the Michigan State Medical Society office. There were 450 square feet, we had two employees, and at that time we had 3,000 members in the State Society.

Today, we have some 6,200 members of the State Society. At that time the budget was $35,000; today the budget is $424,000.

It was recognized that there was a need for this building, because as we progressed in our activities and the service we gave to the State Medical Society—and, by "we" I mean the officers you elect in a democratic way —we started with 450 square feet, then we went to 600 square feet and in 1949 or so we bought the present property at Lansing in which we have 6,500 square feet.

Believe me when I say that every inch of space is being utilized, and we are very short of space. For that reason the House of Delegates last year authorized The Council to proceed to buy property. Dr. Johnson was chairman of the committee to buy the property, and I am sure those of you who have seen the property know it is one of the choice locations in Lansing, on the corner of Abbott Road and Highway 78.

The House of Delegates authorized the Committee to select architects to draw plans. We have employed those architects, the firm of Yamasaki, Leinweber and Associates.

I thing it would be in keeping with what we are trying to do as your representatives to present Mr. Yamasaki tonight, who has been most cooperative in advising with us as to property, the type of building, the surroundings, and how it is to be laid out. He is a nationally-known architect.

It is a great pleasure to present to you Mr. Yamasaki. *(Applause)*

Mr. Yamasaki: It is a pleasure to be here tonight. We have a few slides of the project which will explain visually much more clearly than words, so I would like to show them to you.

(Slide) This is a very beautiful site on M78 going into Lansing. This is Abbott Road here. This is a view of the building from above.

The site is roughly 400 by 340 feet. First I should tell you that it has an elevation. It is high at this point. There is a ridge here 5 to 6 feet higher than the main highway.

Since this is at the intersection of two principal highways, there is a clear vision strip that we cannot build on nor have trees or roads on. The State Highway Department has become very strict about this rule, because there were two fatal accidents here recently. So, the problem is to put the building on the site without using this piece of land.

The building that we have designed is roughly 155 feet long by 47 feet wide. The main entrance to the building is from Saginaw Street (M78). This circle will miss this clear vision strip. You will walk along this strip to the main entrance. The parking lot at the back will be entered from Abbott Road and will contain room for about fifty-five cars. However, the Society has an option on the land north of this, about 70 feet, and that will enable more parking in the future. I don't know whether it is under option or has been purchased as yet.

The site slopes back from here, as well as forward. There is a beautiful grove of trees on the site. This grove here is completely surrounded by evergreens. There is a line of trees here and here. We have shown the parking lot in the rear of the line of trees, and hope to have that extended to here so that the parking lot will be screened from the building.

The entrance for employees and for doctors who know the building will be in this direction from the parking lot, up a few steps and into the building. We propose the rear entrance to be equally as nice as the front entrance.

(Slide) This is how the building will look. It will be built of precast concrete elements. The columns are five feet apart. The roof spans the entire 47 feet. This will be precast on the ground, and one section will be welded to the next one, forming the roof. There is a great deal of economy in precasting. The columns will also be precast, but they will be surfaced with a white quartz aggregate. This white quartz aggregate is a permanent finish, 90 per cent of the finish being the natural stone and 10 per cent cement. The cement will be white. It will stay clean in the rain and will last indefinitely, and will be very beautiful.

The spanule panels will be of some kind of metal. We haven't quite determined that, but we are thinking about gold porcelain enamel panels.

This is the entrance. It is 20 feet wide, and the glass is set back at the entrance. The lobby will be two stories high so that there will be a very imposing entrance.

Our objective with this building was to have a very simple and dignified building that will function properly for your services in the building. We feel this will have a very pleasant and dignified appearance. I think it will be a very striking and imposing building.

The building will be roughly 25 feet high, but the grade being five feet above the ground, the building will be roughly 35 feet above the highway.

(Slide) This is another view showing how it will look from the street. The arches overhang the building about five feet on either side and will protect the long building facade from weathering. Again, the approach is here.

(Slide) This is a view looking directly at the building from the street. The first picture was somewhat deceiving because no one will be able to look down unless he is in a helicopter. Here is the entrance, and you can see the two-story lobby here. The two floors are expressed here and here.

(Slide) This is another view from above, showing the relation to the parking lot.

(Slide) These are contour lines. You can see the high portion of the grade here. Then we cut into the grade for a basement service entrance so that we can come directly into the basement area for service. A future extension, if needed, will be placed here and will be tied to the building. The service drive will enter the building at this point in the future; however, the building is adequate for the time being.

Mr. Willian Jarrett of our office will explain the floor plan in detail.

Mr. William Jarrett: *(Slide)* This is the first floor plan. As Mr. Yamasaki explained, we come into the building from the turnaround. You will walk up to the plaza, which runs the full length of the building. You enter the lobby here. The lobby is set back from the columns of the building to form sort of a porch.

This is the main Board room, with a committee room divided by a folding partition. This is the all-purpose room and the kitchen. This is only a catering kitchen; as this was planned, it was the thought that the Board would meet in this room, then eat dinner here, with a catering company to serve them.

The business office suite is here, with the Business Manager's office here, his secretary next, and the bookkeeper and vault adjacent. There are two extra offices unassigned. There is an office for the President of the Society, with a small lavatory and storage space for his use.

This office is for scientific work space, with a secretary adjacent. This is the office of the editor, and his secretary next to him. There is the men's and women's toilet rooms.

(Slide) This is the second floor plan. This is the upper part of the two-story lobby, and this is a bridge crossing it at the second floor level. At this end is the office of the Executive Director, with a lavatory and a storage unit serving both sides. This is the Administrative Assistant's office. This is the room for the secretary. Here is the stockroom, and over here is the stenographic office.

The Public Relations Counsel's office is here, with a lavatory and storage unit, and next to him is his secretary's room. Adjacent to that is an extra office which has a folding partition separating it from the Public Relations Library.

This is the Assistant Public Relations Counsel's office and the office of his secretary. This office is for the MCIC secretary. This is the men's and women's toilet rooms, janitor closet, and so on, similar to that on the first floor.

(Slide) This is the basement plan. Here is the service entrance that you saw on the model, also shown on the previous slide. This is the processing room; this is for exhibit material; here is the stockroom, literature storage, audiovisual, file room, and more storage. This large space is devoted to the mechanical equipment room, containing the air conditioning equipment. Here are the men's and women's toilet rooms and the secretaries' lounge and rest rooms.

THE SPEAKER: This matter is referred to the Reference Committee on Reports of The Council. There will be drawings available at the Reference Committee meeting. There is a model of the building on the far side of the room, as I am sure you have all noticed.

C. W. SELLERS, M.D., [Wayne]: It seems to me that when visiting dignitaries come up in an automobile there should be some way of driving into the parking lot without having to go around Robin Hood's barn.

MR. YAMASAKI: *(Slide)* The question is whether or not we should have a driveway from here to here on the property. Consideration was given to that, Doctor, but here are the reasons we decided not to do it: First of all, this is about 300 feet of road, and it would be expensive. All the employees and all the doctors who use this building will know about the parking lot after one visit, and they will drive into the parking lot and walk directly into the building.

Visitors who arrive at the building are relatively few. Four or five a day would be the most, as I understand it from Mr. Burns. They can park here. There is room enough in the driveway to park six cars. The visitors can walk directly into the building.

We believed that we could save the cost of a 300-foot road and also we would not cut up the property. There is also the matter of safety on the corner. It is really much better to enter from here. We also thought of coming right in from here, but that seemed needless because this is really at the front of the building. We cannot put a road through this clear vision strip, as I have explained, and so having this driveway located here is really much better, because any road coming into or out of M78 should be as far away from that corner as possible.

VOICE: What is the size of the building on the ground?

MR. YAMASAKI: The building is 155 feet long and 46 feet 6 inches wide.

VOICE: What is the total square foot area?

MR. YAMASAKI: About 19,500 square feet of floor area.

VOICE: What will happen to the rain water?

MR. YAMASAKI: We have a way of getting rid of it. We will get rid of it by troughs.

VOICE: Is there any provision for an elevator?

MR. YAMASAKI: Yes, there is provision for an elevator.

VOICE: I think we are all intrigued by the style of architecture and materials to be used, but what assurance do we have? Suppose in fifteen or twenty years we want to add an addition. Will we be able to get the materials that are used in this original building?

MR. YAMASAKI: The material we are using is coming on the market with great rapidity. I can almost assure you that precast concrete will be the material of the future.

Normally, you put up a building and you make a structural element, and then you cover it with concrete. Let's say it is made with steel. You cover the steel with concrete to make the building fireproof. Then you cover it with stone. That is a very costly way to build a building. Many of us have been experimenting with this and have found that it is most successful to precast the whole element. We have found that it is weatherproof and that it is a very good material.

We are among the first group of architects to use this scheme. The material itself has been tried and tested. There is a very complex building in Chicago that was built in 1922 with this material, and it is still very beautiful. So, this is not a new material.

Of course concrete is not a new material, but the method of using it is new, and I think this is what buildings will be built of in the future. Buildings have to be mechanized. We can't hand-make buildings any more. In other words, the trouble with the building industry and its high cost is that the building industry is one of the few industries that has not completely mechanized. Through methods such as precasting we are mechanizing the building industry, and consequently bringing building costs down to where they should be.

VOICE: What is the back of the building going to look like?

MR. YAMASAKI: Exactly the same as the front. You can see that in the model. It will be a good looking building all the way around. You won't have a big brick wall in the back.

VOICE: Do you have the estimated cost?

MR. YAMASAKI: The estimated cost is $450,000 plus the site work. The cost of the land is not included.

VOICE: What is the material between the precast sections?

MR. YAMASAKI: When you precast these elements you put them up with a crane, and then you weld the pieces together, and then about 1½ inches of insulation will be put on top of that, which will be Fiberglas or foam glass. On that we will put a built-up roof, a normal built-up roofing, just like you have in any stock roof. Actually, the silhouette is not so difficult that we can't use this material. On top of that we will put a plastic with marble chips embedded in it, which will give a white surface so that the roof will be white when seen from the side, and also that will reflect the heat, which will be a saving in air conditioning.

All the materials will be permanent materials. You have glass, porcelain enamel and this porous material on the front of the building. It will not look shabby in a short time, as so many modern buildings do. *(Applause)*

THE SPEAKER: This is a beautiful building, in my opinion. It is dignified and serviceable, and I am personally completely sold on it.

XIV. MICHIGAN'S NOMINEE FOR PRESIDENT'S AWARD ON EMPLOYMENT OF PHYSICALLY HANDICAPPED

H. L. GORDON, M.D., [Midland]: At this time, when we are paying tribute to some of the very wonderful Michigan men of medicine, it seems appropriate that we should give recognition to one of our colleagues who has made outstanding contributions in the field of rehabilitation.

By way of explanation I should tell you that once a year the President of the United States, through the President's Committee on Employment of the Physically Handicapped, makes an award to some physician who has made outstanding advances in the welfare or the employment of the physically handicapped. The next award will be made in February 1959. Nominations for this award may be made by state medical societies or governors' commissions on employment of the physically handicapped.

The Michigan State Medical Society and the Governor's Commission on Employment of the Physically Handicapped has nominated a man who they feel is most qualified and certainly deserving of this award. He is Dr. Richard Pomeroy. I will not try to give you his pedigree in any detail, nor his accomplishments—not that I am afraid of embarrassing him, but I am afraid I will give myself an inferiority complex.

I would like to point out that he is an orthopedic surgeon, a member of the Ingham County Medical Society, the Michigan State Medical Society, the American Medical Association, the American Board of Orthopedic Surgery, the American Academy of Orthopedic Surgery, the American Academy of Cerebral Palsy, and the Community Services Council.

He is a Fellow of the American College of Surgeons, a member of the Board of Directors of the Ingham County Society for Crippled Children and Adults, a member of the Board of Directors of the United Cerebral Palsy in Lansing, and a member of the State Medical Advisory Committee of the United Cerebral Palsy of Michigan. He is also a member of the Vocational Rehabilitation Committee of the State Office of Vocational Rehabilitation.

Dr. Pomeroy's achievements have been made in the Ingham County Rehabilitation Center. This is made up of the Rehabilitation Hospital, the Sheltered Workshop and the Rehabilitation Industry. His leadership and his devotion to this cause and the time he has spent make Dr. Pomeroy certainly very well qualified for nomination to receive the President's Award.

It is a great pleasure to present this to you, Dr. Pomeroy. I am sure I speak for the House of Delegates when I say that our good wishes go with Dr. Pomeroy in his endeavors in this field, and that we all hope he is the one who is selected for the President's Award in February 1959.

THE SPEAKER: Thank you, Dr. Gordon; and congratulations, Dr. Pomeroy. Do you have a word to say, Dick?

RICHARD POMEROY, M.D., [Ingham]: Just to thank you.

THE SPEAKER: If there is no further business, we stand recessed until nine o'clock tomorrow morning.

(The meeting adjourned at 10:45 p.m.)

MONDAY MORNING SESSION

September 29, 1958

The meeting reconvened at 9:15 a.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XV. RESOLUTIONS AND MOTIONS

XV—1. TWO-THIRDS MEMBERSHIP VOTE SHALL CONSTITUTE FAVORABLE REFERENDUM

G. C. WILSON, M.D. [Lenawee]:

"Whereas, the Michigan State Medical Society is an organization of the doctors of medicine of this State of Michigan, and

"Whereas, the purposes of that organization are listed in Article III of the Constitution of the Michigan State Medical Society, and

"Whereas, the House of Delegates is intended to represent the members of the Michigan State Medical Society and act as the legislative body of that Society, and

"Whereas, the Michigan Medical Service was conceived, organized, and is now operating, and

"Whereas, the 1957 House of Delegates acted to extend Michigan Medical Service and empowered Michigan Medical Service to create new contracts, and

"Whereas, such contracts have been created and have been sold to citizens of the State of Michigan, and

"Whereas, this action has met with some disapproval by members of the Michigan State Medical Society, and

"Whereas, Chapter XII, Section 2 of the Constitution of the Michigan State Medical Society empowers the House of Delegates, by a majority vote, to submit any question pertinent to the community and organized medicine to the membership of the Society for its vote, and

"Whereas, over 66 per cent of our Society members did sign up for participation before any contract went into force, and

"Whereas, it is the right of each individual doctor of medicine in this State to belong to and to participate in the activities of the Michigan State Medical Society, and

"Whereas, a truly representative organization is desirable; therefore, be it

"RESOLVED: That participation by over two-thirds of the members of the Michigan State Medical Society in Michigan Medical Service, as evidenced by their signatures, be considered to constitute a referendum favoring existing leadership and be it further

"RESOLVED: That lack of participation by over two-thirds of the members be considered to constitute a referendum favoring a change in policy, and by implication a change in whomsoever could be considered as responsible for that policy."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—2. FUND RAISING—FEDERATED AND OTHERWISE

W. C. BEETS, M.D. [Kent]:

"Whereas, many publicly supported health agencies such as the Anti-Tuberculosis Society, the Polio Foundation, the Heart Fund and the American Cancer Society, have protested our Resolution No. 5 of the 1957 House of Delegates, and

"Whereas, these groups in their individual campaigns are remarkably successful, while the United Fund group have been failing to meet their quotas, and

"Whereas, it is not the function of organized medicine to determine the method of fund raising; be it

"RESOLVED: That the House of Delegates rescind

the 1957 resolution endorsing federated fund raising, and approve individual campaigns if the objectives of such an organization meet with the full approval of the local medical society."

THE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XV—3. REPEAL OF STATEMENT OF PRINCIPLES COVERING BLUE SHIELD CONTRACTS

G. S. BATES, M.D. [Wayne]:

"Whereas, a significant degree of dissatisfaction among doctors of medicine has arisen since the M-75 contract has been made public, and

"Whereas, the major features of M-75 which arouse controversy concern:

"1 The method of payment of professional fees to nonparticipating physicians.

"2 The new income limit for service benefits.

"3 The uniform scale of fees which ignores the value of unusual training and experience.

"4 The change in method of determining subscriber income for contract purpose.

"5 The extension of benefits to include laboratory, diagnostic and therapeutic radiologic procedures without adequate control of proper usage.

"6 The fees paid for individual service, and

"Whereas, the M-75 contract is a reflection of the commitments made by The Council of the Michigan State Medical Society in its 'principles to be embodied in insurance contracts,' under authority granted by vote of the House of Delegates, September, 1957, and

"Whereas, it is firmly believed that the interests of the public and the medical profession will suffer severely unless the present controversies are mediated; therefore, be it

"RESOLVED: That the endorsement of the aforementioned statement of principles by the House of Delegates be hereby repealed; and be in further

"RESOLVED: That the House of Delegates take immediate action to stop the promotion and sale of M-75 forthwith; and be it further

"RESOLVED: That the House of Delegates create a special committee to re-examine forthwith the statement of principles governing insurance contracts and the M-75 contract itself in the light of the known major points at issue; and be it further

"RESOLVED: That the special committee report in full its deliberations and recommendations for change; and be it further

"RESOLVED: That the Speaker of the House of Delegates be instructed to call a special session of the House of Delegates in March of 1959 or before, if feasible, to hear a full report from the special committee on its re-examination and recommendations for change in the aforementioned principles and contract."

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—4. ALPHABETICAL LISTING OF MEMBERS

D. W. THORUP, M.D. [Berrien]:

"Whereas, the Directory of Members, as published by the Journal of the Michigan State Medical Society, is of great value, and

"Whereas, the use of this publication would be greatly facilitated by inclusion of an alphabetical listing of names with identifying county society; therefore, be it

"RESOLVED: That the Publications Committee of the Journal of the Michigan State Medical Society include such a list in that Directory."

THE SPEAKER: This will be referred to the Reference Committee on Miscellaneous Business.

XV—5. TERMINATION OF SALE OF BLUE SHIELD'S M-75 CONTRACT

J. D. MILLER, M.D. [Kent]:

"Whereas, the Kent County Medical Society, at its regular meeting September 9, 1958, expressed its opinion in the following motion: 'That this Society instruct their delegates to recommend the immediate termination of the sale of the M-75 plan, and that the feasibility of this or other types of contracts be thoroughly restudied by the House of Delegates'; therefore, be it

"RESOLVED: That the House of Delegates instruct (order) Michigan Medical Service to terminate the sale of the M-75 plan; and be it further

"RESOLVED: That the House of Delegates institute measures for restudy of M-75 and other similar types of contracts."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—6. MEDICAL REPRESENTATION WHEN MANAGEMENT-LABOR NEGOTIATE MEDICAL SERVICES

J. D. MILLER, M.D.:

"Whereas, Michigan Medical Service provides service contracts for prepaid medical care, and

"Whereas, the service furnished in carrying out said contracts is provided by the members of the Michigan State Medical Society, and

"Whereas, the services provided by the members of the Michigan State Medical Society have therefore become an item of negotiation and/or bargaining between labor and management, and

"Whereas, those who furnish the services involved in said service contracts have not been represented at such negotiations; therefore, be it

"RESOLVED: That the Michigan State Medical Society be represented when negotiations and bargaining for such medical services is involved."

THE SPEAKER: Your Speaker would like to refer this resolution to the Reference Committee on Resolutions.

XV—7. FEE COMMITTEES SHALL WORK UNDER THE COUNCIL

J. D. MILLER, M.D.:

"Whereas, many of the present misunderstandings in regard to fees are the result of multiple committees on fees whose authority is not clearly understood and is frequently overlapping; therefore, be it

"RESOLVED: That the Permanent Advisory Committee on Fees of this House of Delegates be instructed to work with The Council when this House is not in session, and that all other committees on fees of the Michigan State Medical Society work under its direction."

THE SPEAKER: This resolution will be referred to the Reference Committee on Reports of The Council.

XV—8. NO DISTINCTION IN PAYMENT BETWEEN NON-PARTICIPATING AND PARTICIPATING PHYSICIANS IN BLUE SHIELD

P. T. LAHTI, M.D. [Oakland]:

"Whereas, the Statement of Principles as passed by the House of Delegates of the Michigan State Medical Society upon which the M-75 plan is based states in Principle I: 'There must be complete freedom of choice of physician by the patient. Nothing in any contract will imply any restriction of this Principle,' and

"Whereas, the doctor-opinion survey on prepaid medical care plans, page 61, paragraph 12, reveals that the majority of the doctors of Michigan 'feel that where service is rendered by a nonparticipating physician the

Blue Shield payment should go directly to the doctor,' and

"Whereas, the M-75 policy implies against nonparticipating physicians as indicated in Section 5, last paragraph, by the statement: 'NONPARTICIPATING: If, in an emergency, the member shall utilize the services of a nonparticipating physician . . .,' and this is considered in direct violation of Section 10 of the Enabling Act MPA 108-1939, which states: 'The private physician-patient relationships shall be maintained and the subscriber shall at all times have free choice of doctor of medicine,' and

"Whereas, the present stated intent of M-75 administration is to pay the patient of the nonparticipating physician rather than the physician himself, and

"Whereas, this discrimination against the nonparticipating physician infringes upon his right to set his own fee, and seriously affects the patient-physician relationship; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society direct the Michigan Medical Service to pay the nonparticipating physician in the same manner as the participating physician; and be it further

"RESOLVED: That the words 'in an emergency' be deleted from Section 5, last paragraph, of the M-75 contract."

THE SPEAKER: The Speaker will assign this resolution to the Reference Committee on Medical Service and Prepayment Insurance.

XV—9. SPONSORSHIP OF AAPS ESSAY CONTEST

L. J. BAILEY, M.D. [Wayne]:

"Whereas, the medical profession is a group of strong individuals, proud of their heritage, their independence and their professional attainments in providing the American people with the highest standards of medical care in the world, and

"Whereas, these high standards were accomplished under a system of private practice in which each individual physician served his patients faithfully, applying his medical knowledge and skills to the best of his ability in order to survive in medical competition, and

"Whereas, the Essay Contest for High School Students, through twelve consecutive years of sponsorship, has demonstrated its value as an educational program for informing high school students on the advantages of the system of private practice of medicine and the system of American free enterprise, and

"Whereas, the task of informing students must be sustained from year to year because each year new groups of students are brought into the high schools, and

"Whereas, the Association of American Physicians and Surgeons, Incorporated, has requested the Michigan State Medical Society to sponsor the 1959 Essay Contest, and has asked that the President of the Michigan State Medical Society appoint a special committee to manage the contest; therefore, be it

"RESOLVED: That the Michigan State Medical Society accede to the request of the Association of American Physicians and Surgeons, Incorporated, to sponsor the 1959 Essay Contest, and that the President appoint a special committee to manage the contest."

THE SPEAKER: Dr. Bailey's resolutions will be assigned to the Reference Committee on Legislation and Public Relations.

XV—10. REPEAL OF STATEMENT OF PRINCIPLES COVERING BLUE SHIELD CONTRACTS

J. W. RICE, M.D.:

"Whereas, a significant degree of dissatisfaction among doctors of medicine has arisen since the M-75 contract has been made public, and

"Whereas, the major features of M-75 which arouse controversy concern:

"1—The method of payment of professional fees to nonparticipating physicians.

"2—The new income limit for service benefits.

"3—The uniform scale of fees which ignores the value of unusual training and experience.

"4—The change in method of determining subscriber income for contract purposes.

"5—The extension of benefits to include laboratory, diagnostic and therapeutic radiologic procedures without adequate control of proper usage.

"6—The fees paid for individual service, and

"Whereas, the M-75 contract is a reflection of the commitments made by The Council of the Michigan State Medical Society in its 'principles to be embodied in insurance contracts' under authority granted by vote of the House of Delegates, September, 1957, and

"Whereas, it is firmly believed that the interests of the public and the medical profession will suffer severely unless the present controversies are mediated; therefore, be it

"RESOLVED: That the endorsement of the aforementioned statement of principles by the House of Delegates be hereby repealed; and be it further

"RESOLVED: That the House of Delegates take immediate action to stop the promotion and sale of M-75 forthwith; and be it further

"RESOLVED: That the House of Delegates create a special committee to re-examine forthwith the statement of principles governing insurance contracts, and the M-75 contract itself in the light of the known major points at issue; and be it further

"RESOLVED: That the special committee report in full its deliberations and recommendations for change; and be it further

"RESOLVED: That the Speaker of the House of Delegates be instructed to call a special session of the House of Delegates in March of 1959 or before, if feasible, to hear a full report from the special committee on its re-examination and recommendations for change in the aforementioned principles and contract."

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—11. MSMS COUNCILOR DISTRICT REPRESENTATIONS ON BLUE SHIELD BOARD OF DIRECTORS

A. D. ALLEN, M.D. [Bay-Arenac-Iosco]:

"Whereas, there is need for closer liaison between members of the Michigan State Medical Society and the Michigan Medical Service, and

"Whereas, more direct representation would bring about closer co-operation with the doctors of medicine; we therefore

"RESOLVE: That the Board of Directors of Michigan Medical Service contain an elected representative from each councilor district."

THE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XV—12. STUDY OF METHOD TO ALLOT PROPORTIONAL UNITS WHEN MEDICAL SERVICE IS PROVIDED BY MORE THAN ONE PHYSICIAN

A. C. STANDER, M.D. [Saginaw]:

"Whereas, the Blue Shield service plan embodies a full coverage hospital program, and

"Whereas, the best modern medical care is frequently a team program involving two or more physicians, and

"Whereas, the division of fees on the basis of services actually rendered is both equitable and ethical, and an established principle of group practice, and

"Whereas, it would be inconsistent with the principle

of free individual enterprise to deny to an individual what is granted to a group, and

"Whereas, many hospital procedures, especially surgical, can well be divided into diagnostic, definitive or operative care, or postoperative or convalescent phases; be it

"RESOLVED: That this House of Delegates request the appropriate committee or committees to study the advisability and method of allotting proportional units of the total unit value, when more than one physician participates actively in the care of the patient, on the basis of (1) diagnostic and pre-definitive care, (2) definitive or surgical procedures, and (3) post-definitive care when the latter is not properly or essentially a part of the definite procedure or treatment, or when the physician who has performed this definitive treatment is not available; and be it further

"RESOLVED: That the members of this House of Delegates be informed of the action taken as soon as possible, or at least by the time of the next meeting of the House of Delegates, be it a regular or special meeting."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—13. POLL ON SOCIAL SECURITY

E. H. FENTON, M.D. [Wayne]:

"Whereas, representative action of delegates to the American Medical Association can only stem from adequate knowledge of the opinions of their constituents, and

"Whereas, this knowledge can in some cases only be obtained by a properly regulated and properly worded referendum, and

"Whereas, without such opportunity for expression of opinion the membership may rightly feel that they are not being adequately represented, and

"Whereas, opinions of individuals may change over a period of years, and

"Whereas, our delegates to the American Medical Association in Michigan have been forced to act without the benefit of a recent opinion survey on certain matters; therefore, be it

"RESOLVED: That the opinions of the physicians of this State be obtained before the next meeting of the House of Delegates of the American Medical Association on the question of social security participation; and be it further

"RESOLVED: That this opinion be obtained in the form of a stamped postal card, self-addressed by the Michigan State Medical Society, with the following simple wording: 'Do you favor inclusion of doctors of medicine as participants in the present social security system? Yes——— No———.'"

THE SPEAKER: This resolution will be referred to the Reference Committee on Officers' Reports.

XV—14. RULES OF CONDUCT FOR PHYSICIANS IN CLOSED PANEL PRACTICE

D. A. BOWMAN, M.D. [Bay-Arenac-Iosco]:

"Whereas, the United Mine Workers have a closed panel practice, and

"Whereas, other labor organizations have given their intention to develop new closed panel practice; therefore, be it

"RESOLVED: That the Michigan State Medical Society draw up rules of conduct for the individual doctor of medicine in his relationship to these health programs."

THE SPEAKER: This will be referred to the Reference Committee on Resolutions.

XV—15. SUSPENSION OF SALE OF BLUE SHIELD'S M-75 CONTRACT

F. H. POWER, M.D. [Grand Traverse-Leelanau-Benzie]:

"Whereas, a large segment of the members of the Michigan State Medical Society find the M-75 contract, as now offered, inadequate or objectionable in many of its features, and

"Whereas, many physicians participating in the M-75 contract have agreed to do so only with the understanding that it will be modified and improved in the future, and

"Whereas, certain conclusions based on the 1957 opinion study may have been rendered invalid as a result of increased interest and awareness of the insurance problem on the part of members of the Michigan State Medical Society; therefore, be it

"RESOLVED: That Michigan Medical Service be requested to suspend the sale of the M-75 contract; and be it further

"RESOLVED: That the insurance contracts offered by Michigan Medical Service be re-evaluated by a committee of the House of Delegates of the Michigan State Medical Society working with the Medical Care Insurance Committee of The Council for the purpose of devising a contract more acceptable to the members of the Michigan State Medical Society; and be it further

"RESOLVED: That any proposed insurance contract resulting from this re-evaluation be submitted to the next meeting of the House of Delegates, or to all the members of the Michigan State Medical Society, by referendum, for approval prior to endorsement and sale to the public."

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—16. RESPONSIBILITY FOR TREATMENT OF DIABETES MELLITUS

SIDNEY ADLER, M.D. [Wayne]:

"Whereas, the treatment of diabetes mellitus is a responsibility of the medical profession; its detection, diagnosis, treatment and educational programs have been carried on through the Wayne County Medical Society, the Michigan State Medical Society and the Clinical Society of the Michigan Diabetes Association, Incorporated, and

"Whereas, the United States Public Health Service with the Tuberculosis Division of the Michigan State Health Department have undertaken the program of detection of diabetes and an educational program on diabetes; therefore, be it

"RESOLVED: That the Wayne County Medical Society, the Michigan State Medical Society and the Clinical Society of the Michigan Diabetes Association assume the responsibility and leadership for this program. It has been the policy to co-operate with all other agencies interested in health, both physically and financially, but it is firmly believed that the program should be carried on under the direction of the above groups of interested physicians."

THE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XV—17. DISTRIBUTION OF FREE POLIO VACCINE TO MEDICALLY INDIGENT

P. C. GITTINS, M.D. [Wayne]:

"Whereas, the City of Detroit and County of Wayne experienced a serious outbreak of poliomyelitis, the most severe in recent years, and

"Whereas, this high incidence and severity of the disease is indicative of the fact that the population of

the County of Wayne and the State of Michigan are inadequately protected against this serious disease, and

"Whereas, the Michigan State Department of Health does at the present time and has for many years distributed various types of vaccines for the prevention of certain communicable disease, and

"Whereas, no poliomyelitis vaccine is currently available for free distribution to indigent people, among whom the disease is showing its highest incidence; therefore, be it

"RESOLVED: That the Michigan State Department of Health be requested to include, among their free distributed drugs and biologics, poliomyelitis vaccine; and if sufficient funds are presently not available in the State Health Department budget, the Governor of the State of Michigan and the State Legislators be petitioned to allocate a sufficient sum of money on an emergency appropriation basis in order that the polio vaccine may be available for free distribution to indigent people immediately."

THE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XV—18. RULES FOR CONTROL OF MEDICAL STAFF IN PUBLIC HOSPITALS

H. A. FURLONG, M.D. [Oakland]:

"Whereas, the right of the Pontiac General Hospital to have rules and regulations for the control of professional-medical practice within the Hospital has been challenged by litigation in the Circuit Court of Oakland County, and

"Whereas, there is a standard practice of approved hospitals throughout the United States and Canada to have such rules and regulations for the control of professional practice within the hospital, and

"Whereas, it is one of the fundamental requirements of the Joint Commission on Accreditation of Hospitals that all hospitals so approved by the Commission shall have in effect constitutions, bylaws, and rules and regulations controlling the admission of members of the staff and professional practice within the hospital, and

"Whereas, the present litigation controlling the Board of Registration in Medicine does not cover this matter, and

"Whereas, the litigation in the Circuit Court of Oakland County cites the issuance of the license to practice medicine, and it is taken to mean that the hospital has no right to restrict the practice of any doctor within the hospital, and

"Whereas, in 1957 the Oakland County Medical Society by resolution asked the House of Delegates to take action to initiate the necessary legislation in Michigan to clearly establish the right of a public hospital to have rules and regulations for the control of the medical staff, and

"Whereas, even a favorable decision in the Circuit Court of Oakland, County may result in an appeal to the Supreme Court of Michigan, and

"Whereas, the House of Delegates meeting in September could prepare legislation for action at the next session of the Legislature ;therefore, be it

"RESOLVED: That the Oakland County Medical Society again request the Michigan State Medical Society to prepare with other interested parties, namely, the Michigan Hospital Association, legislation to clearly establish the right of a public hospital in Michigan to have rules and regulations for the control of the medical staff."

THE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XV—19. STUDY COMMITTEE ON ALCOHOLISM

R. H. PINO, M.D. [Wayne]:

"Whereas, alcohol consumption seems to be an increasing factor in the incidence of disease and death in America; therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society establish a study committee on this problem, and that this committee report its findings and recommendations at the next annual session of the House of Delegates."

THE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XV—20. NO HOUSE OF DELEGATES MEETING ON SUNDAY, UNLESS NECESSARY

W. C. BEETS, M.D. [Kent]:

"Whereas, Sunday should be a day of rest and is such treasured by the average doctor of medicine and especially by his family, and

"Whereas, the religious convictions of many members of the Michigan State Medical Society and its delegates are opposed to conducting unnecessary business on Sunday; be it therefore

"RESOLVED: That the House of Delegates not meet on Sundays."

THE SPEAKER: This resolution will be referred to the Reference Committee on Miscellaneous Business.

XV—21. BY-LAWS, CHAPTER 16, SECTION 1 RE: DATE OF SUSPENSION FOR NONPAYMENT OF DUES

F. P. RHOADES, M.D. [Wayne]:

"Whereas, Chapter 16, Section 1 of the Michigan State Medical Society By-laws stipulates that any member who has not paid his dues and assessment by April 1 shall be suspended, and

"Whereas, during the past ten years there has been a 60 per cent increase in State dues and assessment plus the addition of American Medical Association dues, and

"Whereas, the State Society will not accept partial payment, and full payment before April 1 is a financial hardship for many physicians, and

"Whereas, confusion arises because the AMA does not list a member as delinquent until June 1, and

"Whereas, one of the objectives of the Michigan State Medical Society is to encourage ethical physicans to maintain membership, and such arbitrary suspension for nonpayment results in membership loss and creates antagonism; therefore, be it

"RESOLVED: That Chapter 16, Section 1 of the Michigan State Medical Society By-laws be amended by changing the date for suspension of members for nonpayment of dues from April 1 to June 1."

THE SPEAKER: This will be referred to the Reference Committee on Constitution and Bylaws.

XV—22. RECOGNITION OF PSYCHIATRICALLY ILL PATIENT IN BLUE SHIELD'S M-75 CONTRACT

R. T. COSTELLO, M.D. [Wayne]:

"Whereas, the physicians of Michigan are being asked to support the proposed Seal of Assurance plan of Michigan Medical Service, which involves participation in the new Blue Shield Contract M-75, and

"Whereas, Blue Shield plan M-75 continues, as in prior contracts, to discriminate against subscribers who suffer from nervous or mental conditions by limiting medical care to thirty days, and

"Whereas, such distinctions in illnesses are inequitable, particularly in a medically sponsored plan and in view of the clinically recognized fact that many physical

illnesses have concomitant emotional reactions and emotional illnesses are often manifested by physical symptoms, and

"Whereas, these distinctions in effect penalize the nervous or mentally ill patient and the physician who practices neurology or psychiatry because of the nature of the illness, and

"Whereas, Blue Shield Plan M-75 does not recognize in its fee structure either the additional education and training required for the medical specialties or the fact that a considerable amount of time is necessary for effective treatment of each psychiatric case, with the consequence that fees for psychiatric services are grossly inadequate and inequitable; therefore, be it

"RESOLVED: That the Michigan Medical Service Blue Shield Plan M-75 does not adequately meet the problem of the psychiatrically ill patient; and be it further

"RESOLVED: That this resolution be presented to the September meeting of the Michigan State Medical Society House of Delegates; and be it further

"RESOLVED: That this resolution be published in the Detroit Medical News and the Journal of the Michigan State Medical Society."

THE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—23. FUND RAISING—FEDERATED AND OTHERWISE

H. C. HANSEN, M.D. [Calhoun]: This is a resolution approved by the Michigan Cancer Co-ordinating Committee on May 13.

"Whereas, necessary financial funds are obtained by national (single disease) health organizations in one of two ways: (1) By independent campaigns, or (2) by federated fund raising, and

"Whereas, both of these systems have proven successful in achieving the similar purpose of gaining public financial support to the end that the important work of these health agencies is accomplished, and

"Whereas, the decision on what type of fund raising program to use must remain the sole prerogative of the individual national health agency; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society approves in principle the right of all national voluntary (single disease) health organizations to utilize the type of fund raising program that best suits their individual purposes and program."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XV—24. PROPOSED LAW TO REGULATE OPERATION OF AMBULANCES

H. W. HARRIS, M.D. [Ingham]:

"Whereas, transportation of the sick and injured is of vital concern to all citizens of the State of Michigan, and

"Whereas, it is of particular concern to the physicians of this State, and

"Whereas, there presently is no law in this State to require proper personnel or equipment or to properly regulate the speed of ambulances; therefore, be it

"RESOLVED: That the Legislative Committee of the Michigan State Medical Society be directed by this House of Delegates to use its influence to have introduced into the coming session of the Legislature of the State of Michigan the following proposal, and to press for its enactment as a law of this State, the proposal to be known as: An Act to regulate the operation of vehicles engaged in the business of transporting sick or injured persons; definition; to provide qualifications of drivers and attendants; to require certain equipment; to require inspection of equipment; to regulate the speed of ambulances; to provide penalty for the violation of this Act.

"Section 1—For the purpose of this Act, an 'ambulance' shall be defined to include any and all vehicles maintained and operated in the business of transportation of sick or injured persons.

"Section 2—It shall be unlawful for any person to conduct, maintain or operate an ambulance while transporting any sick or injured person unless such ambulance shall be under the immediate supervision and direction of a driver or attendant who has a certificate evidencing successful completion of a course equivalent to the Senior Red Cross course in first aid.

"Section 3—All vehicles maintained, operated or used as an ambulance in transportation of sick or injured persons shall be equipped with a first aid kit or box equivalent to the 24-unit American Red Cross kit, traction splints and bandages commonly used for the immobilization of long bones and the necessary temporary traction equipment.

"Section 4—All vehicles maintained and operated as ambulances shall be inspected at least twice each year by the county health commissioner or officer, or a deputy designated by him, or by some other person designated by the State Health Department to make such inspection as herein provided. The person making such inspection shall determine whether or not the ambulance is equipped with the necessary items above required, and shall determine whether such equipment is in proper and good condition for use.

"Section 5—Any person who operates an ambulance shall conform to all laws in respect to speed and other driver behavior; further, no driver or other attendant shall do any intentional act or thing to increase the seriousness of the illness or the severity of the injury of any person being transported by them. Nor shall they omit, neglect and/or refrain from doing any act or thing to properly aid such ill or injured person.

"Section 6—Any person who violates any provision of this Act shall be deemed to be guilty of a misdemeanor, and upon conviction shall be required to pay a fine not to exceed One Hundred Dollars ($100) or shall be sentenced to serve a jail term of not more than ninety (90) days, or shall be required to pay a fine and serve a jail sentence at the discretion of the court."

THE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XV—25. EXPRESSION OF APPRECIATION TO RETIRING COUNCILOR J. F. BEER, M.D.

JOHN J. COURY, M.D., [St. Clair]:

"Whereas, J. F. Beer, M.D., has served St. Clair County Medical Society as a delegate for many years, and

"Whereas, during the past year he has served as Councilor for the Seventh District, and

"Whereas, it has been necessary for him to resign because of his health; be it therefore

"RESOLVED: That this House send a telegram of appreciation to him for his able work as a delegate and councilor to this Society."

THE SPEAKER: That will be referred to the Reference Committee on Resolutions.

XVI. REPORTS OF HOUSE OF DELEGATES COMMITTEES

XVI—1. REPORT OF PERMANENT ADVISORY COMMITTEE ON FEES

GROVER C. PENBERTHY, M.D., [Wayne]: This Committee was set up following the introduction and passing of a resolution creating a Permanent Advisory Committee on Fees as presented to the House of Delegates in 1956.

The first meeting was held on August 7, 1957, at which time the groundwork was discussed as regards procedure and function of this important Committee. At that time it was considered a part of the responsibility of the Committee to listen to demands of special groups that might have some questions regarding fee schedules. In general, this meeting was more or less a meeting of orientation.

The second meeting was held December 12, 1957, at which time there was full attendance except for one member. At this meeting the responsibility of the Committee was again discussed, and the Committee agreed to function with the Medical Care Insurance Committee, which was drawing up a relative value schedule of fees after the pattern set by the California Medical Association. This relative value schedule was to be developed on the unit values for the various Plans A, B and C.

No definite action was taken by the Committee at this time because again the function of the Committee had not been clearly defined and, further, the Medical Care Insurance Committee was still in the throes of developing the relative value schedule for Michigan.

The last meeting was held August 22, 1958, at which time there was a full attendance except for two members. At this time Dr. Foster reviewed The Council's delineation of duties of the various fee schedule committees as recommended by the Committee on Committees.

This action of The Council in defining the duties of the Committee was authorized at the meeting held at Mackinac Island in the month of July 1958. In the discussion with respect to procedures it was moved that since the Medical Care Insurance Committee had been working with and studying a relative value schedule, this Permanent Advisory Committee on Fees of the House of Delegates concurs with the action of The Council, and requests that the Medical Care Insurance Committee further study and develop a relative value schedule for Michigan and present its recommendations to this Committee (the Permanent Advisory Committee on Fees) for its consideration, evaluation and recommendation.

Letters were received from several groups posing questions relative to fees, and contents were noted. Following a full discussion of these inquiries, it was moved that, since the Permanent Advisory Committee on Fees would like to know the thoughts and feelings of official medical groups, an invitation be extended to the groups to present their views, and that a hearing might be arranged with the Committee studying the relative value schedule.

It might be further stated that a representative from the Permanent Advisory Committee on Fees has been invited to attend all meetings of the Medical Care Insurance Committee.

Respectfully submitted,
Grover C. Penberthy, M.D., *Chairman*
Joseph F. Beer, M.D.
H. F. Falls, M.D.
Max L. Lichter, M.D.
Milton A. Darling, M.D.
William M. LeFevre, M.D.

The Speaker: This report will be referred to the Reference Committee on Reports of Special Committees.

XVI—2. REPORT OF COMMITTEE ON COMMITTEES

G. B. Saltonstall, M.D.: This Committee, created to study the Michigan State Medical Society committee structure and to recommend a setup that would result in more efficiency with less expense, has held three meetings; its individual members have given much thought to the problem.

Matters discussed by the Committee included: (a) A proposed realignment with sixteen major standing committees as the basic reorganization plan; (b) term of all committees to run for the calendar year; (c) tenure of office for all committee members; (d) each committee's scope and function to be spelled out briefly in the Bylaws; (e) that a committee on objectives or scope be formed.

The Committee on Committees adopted the following main categories for all MSMS committees:

I Medical Services
II Public Health and Public Agencies
III Public Policy
IV Medical Education
V Professional Welfare

These categories were approved by The Council on July 18, 1958.

The Committee appraised overlapping committees on fee schedule and offered recommendations for improvement, which were adopted by The Council on July 18 and made effective in the committee structure for the 1958-1959 Society year.

A statement of the Chairman, as presented to the Committee on Committees on September 19, was accepted with thanks, with the recommendation that he, as President-elect, present the sentiments expressed therein as part of his Address to the 1958 House of Delegates.

Finally, due to the enormity of this task, it is the sense of the Committee that it be allowed to continue its research and make interim reports of its progress to The Council and the House of Delegates.

Respectfully submitted,
G. B. Saltonstall, M.D., *Chairman*
G. W. Slagle, M.D.
L. Fernald Foster, M.D.
K. H. Johnson, M.D.
D. Bruce Wiley, M.D.

The Speaker: Thank you, Dr. Saltonstall. This report will be referred to the Reference Committee on Reports of Special Committees.

[The Vice Speaker assumed the Chair].

XVII. REPORTS OF STANDING COMMITTEES

XVII—1. COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION

XVII—2. PREVENTIVE MEDICINE COMMITTEE AND ITS SUB-COMMITTEES

XVII—3. PUBLIC RELATIONS COMMITTEE AND ITS SUB-COMMITTEES

XVII—4. ETHICS COMMITTEE

XVII—5. LEGISLATIVE COMMITTEE

The Vice Speaker: We will proceed to reports of MSMS standing committees. The reports are all in the Delegates' Handbook, on pages 104 to 137. They will be referred to the Reference Committee on Standing Committees.

XVIII. REPORTS OF SPECIAL COMMITTEES

XVIII—1. SCIENTIFIC RADIO COMMITTEE

XVIII—2. ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

XVIII—3. ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

The reports of these committees will be referred to the Reference Committee on Special Committees.

XIX. SUPPLEMENTAL ANNUAL REPORT OF MEDICAL CARE INSURANCE COMMITTEE

THE VICE SPEAKER: We shall now hear the supplemental report of the Medical Care Insurance Committee. This report was reviewed by The Council and was referred to the House of Delegates.

M. L. LICHTER, M.D.: The report I am giving presents background material regarding prepayment insurance. Copies of this report are being distributed so that you may examine the material both as I read it and at your leisure.

SUPPLEMENTAL REPORT

This report outlines what the Michigan State Medical Society and its voluntary medical prepayment plan—Michigan Medical Service—have done to implement the recommendations concerning acceptable medical prepayment plans adopted without dissenting vote by the House of Delegates at the annual meeting of September 23, 1957.

These recommendations, in short, spelled out the ground-rules which a prepayment program must follow to be acceptable to the Michigan State Medical Society as the representative of the doctors of medicine of Michigan.

This "formula" for an approved medical prepayment program was divided into four major areas:

1. General Considerations.
2. Commitments by the Michigan State Medical Society.
3. Principles to be Embodied in Insurance Contracts.
4. Basis of Service Benefits.

Michigan Medical Service, as specifically urged in the Principles, developed a program which embodied these stipulations. It was worked out step-by-step in continuous cooperation with the Medical Care Insurance Committee of MSMS. Upon approval by that committee, it was forwarded to the Council of MSMS, which endorsed and approved the contract on behalf of MSMS. This was the procedure outlined in the Principles of the House of Delegates.

Since the introduction of this new Michigan Medical Service program—called the Blue Shield M-75—a number of physicians have indicated they feel it violates certain basic principles of medical prepayment. In fact, they feel it is a departure from the basic objectives of the Michigan State Medical Society in the organization of Michigan Blue Shield in 1940.

This is simply not fact, as this report will show point-by-point. We can only assume that the feelings of these individual physicians stem from a misunderstanding or misinterpretation of both the basic principles upon which Michigan Blue Shield was founded in 1940 and upon the implementation and clarification of the Principles as adopted by the House of Delegates at the last annual meeting on September 23, 1957.

GENERAL CONSIDERATIONS

This is a good point at which to quote some of the *General Considerations* and *Principles to be Embodied in Prepayment Contracts*—highlighting the "safeguards to the public" and "safeguards to the medical profession" that are contained.

Here's what is stated under General Considerations:

"The Michigan State Medical Society has made an intensive study of the development and the operation of the many means currently employed both in Michigan and elsewhere to insure against or to prepay the cost of medical care. The conclusions resulting from that study are set forth below and are based upon the following fundamental considerations:

1. The people of Michigan are entitled to and should have health care which meets the highest standards attainable.
2. Means should be generally available in Michigan which will permit the financing of the costs of necessary medical services and supplies to the greatest extent possible and practicable through prepayment.
3. To whatever extent the cost of a particular medical service is not covered by prepayment, such uncovered amount shall be predictable, be known to the patient in advance, and be within his ability to budget for out of income.

The foregoing can be accomplished only if those responsible for rendering the necessary medical services, namely the physicians of Michigan, assume the further responsibility of establishing within the profession a structure around which sound insurance or prepayment plans can be built and also a system by which the profession can assure itself, the prepayment plan subscribers, and the underwriters that the structure is functioning in accordance with its commitments."

Now here are excerpts that contain two separate sets of "safeguards"—safeguards for the public and safeguards for the medical profession.

First, the public safeguards:

"1. Any contract offered by an insurance carrier or prepayment plan organization which embodies the principles set forth in Section C. herein shall receive the endorsement of the Society, provided the carrier issuing this contract shall stipulate it will not offer any prepaid medical care contract which is preferential or discriminatory in its rating. This endorsement shall remain in effect as long as the carrier continues to make such contracts available and keep the stipulation in effect.

"2. It being the objective of the medical profession to make certain that voluntary health protection be available to all self-sustaining people at reasonable cost, the endorsement of the Michigan State Medical Society will be given only if rates charged by the insurance or prepayment carrier are fair and equitable and non-discriminatory.

"3. The Society will use its best efforts to secure the participation of its members in all contracts endorsed by the Society.

"4. A subscriber rendered care by a participating physician will receive 'service benefits' as provided in his contract."

Second, the safeguards for the medical profession:

"5. The Council of the Michigan State Medical Society will appoint a Medical Care Insurance Committee having the following functions:

(A) To examine all contracts submitted for endorsements. A report will be sent to The Council which will have the authority to issue a certificate of endorsement on behalf of the Society.

(B) To cooperate with the Permanent Advisory Committee on Fees of the House of Delegates concerning the Relative Value Scale and applicable unit values.

(C) To develop review procedures for any matters concerning the subscriber, the physician, the insurance carrier, and others.

(D) To develop Review Committees in each of the Councilor Districts of the Society, nominated locally, which shall be appointed by The Council of the Michigan State Medical Society. These shall function under the direction of the Medical Care Insurance Committee, which will also serve as a unit to which appeal can be made from decisions of the Review Committee(s).

(E) To make such interpretations of the language herein as may be required in connection with the endorsement of contracts.

"6. Amendments to or interpretations of the principles set forth in the language herein may be made by The Council of the Michigan State Medical Society during the interim between meetings of the House of Delegates of the Michigan State Medical Society.

"7. The Michigan State Medical Society will develop a 'Relative Value Scale' which will assign to the individual surgical, obstetrical and other medical services a value in units proportional to the relative value of that service. The Society will determine the applicable value of one unit for each class of benefit. By multiplying the number of units assigned to a procedure by the value of one unit, the 'Dollar Allowance' for that procedure is obtained. (No. 1, Sec. D)

"8. For any optional benefits offered by a carrier, the Society will establish appropriate unit values." (No. 2-C, Sec. D)

An additional safeguard—which is both a safeguard for the public and for the medical profession—is stated in Number 1, Section C:

"There must be *complete freedom of choice* of physician by the patient. Nothing in any contract will imply any restriction of this principle."

The Judicial Council of the American Medical Association had this to say about freedom of choice of physician in its 1947 Report on Principles and Ethics:

". . . It also expressly requires that *any qualified, licensed physician residing in the area* in which the plan operates *be allowed* to participate. Thus we see that to be a participating doctor in a *voluntary plan* it is not necessary for one to be a member of the American Medical Association."

"It is, however, necessary for him to accept and obey the terms of the contract offered by the plan, and *on violation of* the terms he *may be dropped* from the rolls, if the violation seems sufficiently grave for such action."

"It is needless for us to remind members that *any violation* of this provision *would indeed deprive the public of the choice of a great many physicians.* As the voluntary plans are intended to cover and supply sufficient medical care of a high quality *for the whole country,* with no feature of a compulsory system, it is necessary that *the principle* be strictly observed."

Now we come to the Blue Shield M-75 contract itself. Michigan Medical Service followed the Principles of the House of Delegates. The material you have clearly demonstrates this.

It is presented by taking pertinent portions of the Principles and matching them with the corresponding part of the contract. If you examine this next section at your leisure on this most important point, you will see that the contract follows the Principles in meticulous detail.

COMMITMENTS BY THE MICHIGAN STATE MEDICAL SOCIETY

In light of the foregoing, the Michigan State Medical Society undertakes the following commitments:

1. Any contract offered by an insurance carrier or prepayment plan organization which embodies the principles set forth in Section C. herein shall receive the endorsement of the Society, provided the carrier issuing this contract shall stipulate it will not offer any prepaid medical care contract which is preferential or discriminatory in its rating. This endorsement shall remain in effect as long as the carrier continues to make such contracts available and keep the stipulation in effect.
2. It being the objective of the medical profession to make certain that voluntary health protection be available to all self-sustaining people at reasonable cost, the endorsement of the Michigan State Medical Society will be given only if rates charged by the insurance or prepayment carrier are fair and equitable and non-discriminatory.

SUBSCRIPTION RATES

Section 9

The subscriber agrees to pay Blue Shield monthly in advance, unless otherwise provided, for the services of the class designated upon his Application card and indicated by his Identification Card, at the following rates:

	Employment Group Rates		
	Plan "A"	*Plan "B"*	*Plans "C & D"*
Individual	$1.80	$2.13	$2.44
Two Person	$4.65	$5.45	$6.25
Family	$5.57	$6.62	$7.67

Blue Shield reserves the right to change the above rates on thirty (30) days' written notice to the subscriber; such change of rates to become effective on the date fixed in the notice, unless the subscriber notifies his employer or remitting agent prior to the effective date of such notice of his decision to terminate this contract.

3. The Society will use its best efforts to secure the participation of its members in all contracts endorsed by the Society.
4. A subscriber rendered care by a participating physician will receive "service benefits" as provided in his contract. The basis is set forth in Section D below.

PARTICIPATING PHYSICIAN (J) "Participating Physician" is a physician who is legally qualified and licensed to practice medicine and perform surgery in the State of Michigan and who has entered into an agreement to provide services to Michigan Blue Shield members under the Blue Shield plan of operation.

NON-PARTICIPATING PHYSICIAN (K) "Non-Participating Physician" is any physician who is legally qualified and licensed to practice medicine and perform surgery at the time and place services are rendered but who has not entered into an agreement to provide services to Michigan Blue Shield members under the Michigan Blue Shield plan of operation.

PRINCIPLES TO BE EMBODIED IN INSURANCE CONTRACTS

1. There must be complete freedom of choice of physician by the patient. Nothing in any contract will imply any restriction of this principle.
   Michigan Medical Service does not undertake to supply a physician for the Subscriber or enrolled dependent(s).
3. The following services must be included in any basic program:

Services and Benefits—Class I

(A) Surgical procedures wherever performed.
A. Surgical Services: generally accepted operative and cutting procedures rendered by the physician in charge of the case for the necessary diagnosis and treatment of disease or injury and of fractures and dislocations, including usual, necessary and related pre-operative and post-operative care, and including as a part of such service anesthesia customarily administered by a physician in charge of the case.
Post operative care shall be limited, however, to the period of hospitalization of the member, or to a period of not more than fourteen (14) days following surgery, whichever is greater.

(B) Medical services when the patient is confined to a hospital.
C. Medical Services: services rendered by the physician in charge of the case for any condition other than surgical or obstetrical services, when and for

which the member is required to be and is admitted as a bed-patient in a hospital. Medical services will be provided concurrently with surgical or obstetrical services or during the same hospital admission only when Blue Shield shall determine that such concurrent services are necessary, unrelated to surgical or obstetrical services, and different in kind and nature from that customarily rendered and considered to be surgical or obstetrical service.

(D) Obstetrical services for the actual procedure in normal delivery. Caesarean section or abortion and complications of pregnancy, but not to include routine pre-natal and post-natal care.
B. Obstetrical Services: rendered by the physician in charge of the case, but not including services customarily rendered as pre-natal or post-natal care. *Such services rendered due to any condition of pregnancy, except ectopic pregnancy, shall not be a benefit unless and until this contract shall have been in force for nine consecutive months prior to, and in force on, the date such service is rendered.*

(E) Anesthesia by a physician not an employee of a hospital.
D. Anesthesia Services: the services of a physician anesthetist, other than the physician in charge of the case, when required by and rendered in relation to services being received under the provisions of this section as surgical, obstetrical or medical. Anesthesia service rendered by an employee of a hospital and anesthesia service such as is customarily rendered by a physician in charge of the case is excluded as a benefit hereunder.

Services and Benefits—Class II

(C) Consultation service in the hospital; surgical assistants where required.
(D) Consultation Services, except staff consultations required by hospital rules or regulations, but only while the member is a hospitalized bed-patient, for a condition requiring special skill or knowledge, as assistance in diagnosis or treatment to the physician in charge of the case, limited to one such medical, surgical or obstetrical bedside consultation during each period of continuous hospitalization.
(E) Technical Surgical Assistance by a physician to the physician in charge of the case, when deemed by Blue Shield to be required, and when related to services being received by the member under the provisions of Section 2 paragraphs A and B hereof, while the member is a hospitalized bed-patient within the State of Michigan and at such times as and in such hospitals when and wherein such surgical assistance is not routinely available as a service provided by a hospital interne, resident or house officer. Routine availability of such services in such hospitals at such times, and whether the nature of the surgery is such as to require technical assistance shall be determined by Blue Shield and its determination shall be conclusive.

(F) Diagnostic laboratory procedures shall be provided in the out-patient department of a hospital, a private laboratory, in the physician's office (screening procedures are excluded).
(C) Diagnostic Services, required in diagnosis of disease or injury: 1. electrocardiograms, electroencephalograms, and basal metabolism tests and; 2. laboratory tests, when performed in the offices of a physician or in the out-patient department of a hospital. The services set forth in this paragraph (C) are excluded as a benefit to the extent that they may be a benefit to the member under the terms of any contract issued by any hospitalization expense plan.

(G) Diagnostic and therapeutic radiologic procedures shall be provided in the hospital, the out-patient department, or in the physician's office.
(a) Radiological Diagnostic Services, excluding miniature x-ray plates, screening procedures, and procedures not directly related and necessary to diagnosis.
(b) Radiological Therapeutic Services utilizing generally accepted therapy (such as x-ray, radon, radium and isotopes), for the treatment of malignancies, tumors of bones, brain or spinal cord(hemangiomas, vascular nevi, lymphomas, leukemia, and thyroid disease.

(A) For any necessary service other than in-hospital medical care, surgical care, obstetrical care and anesthesia, the subscriber shall have, at the time of utilization, a degree of financial participation in and responsibility for medical fees in addition to his premium. This shall be determined by the carrier but the responsibility of the patient shall be not less than 10 per cent or $5.00, whichever is more, but not in excess of the scheduled fee allowance. In accordance with the terms of the contract, this amount shall become the obligation of the patient to the physician at the time of service and will be subtracted by the carrier from the payment for service it shall make to the physician. For any calendar year, however, patient participation shall not exceed the following:

Contract for which Eligible	*Limit of patient Participation Per Year*
A	$25
B	50
C	75

(2) MEMBER'S LIABILITY: A member receiving Class II Services shall be liable to pay the physician in respect of each such service rendered the greater of (a) $5.00 or (b) ten per cent of the applicable schedule fee for such service, but not more than the amount of such scheduled fee; however, if during any period of one year, not including any part of any other such period, while this and previous contracts are continuously in effect, there shall be incurred and paid in discharge of such member's liability, in respect of such Class II Services received by any one member a total aggregate amount in excess of: under plan "A," $25.00; or Plan "B," $50.00; or Plan "C," or Plan "D," $75.00; Blue Shield will, upon receipt of evidence of such excess payment satisfactory to it, refund such excess amount to the member. The excess amount aforesaid shall be separately computed as to each member whether or not a dependent.

If a member shall claim refund for payments made in respect of members liability paid during a one year period in which the member has been entitled to services under more than one Plan (A, B, C or D) and the Plan in effect at the end of such period shall provide the lower aggregate, then any amount paid during such year by the member against the higher amount provided by the prior Plan, shall be credited against the lower aggregate up to but not in excess thereof.

6. There shall be three contracts to be known as Plans A, B, C. Each of these contracts shall apply to a specific income level and will provide service benefits. The income level shall be determined by a projection of the current rate of earnings of the basic wage-earner in the family and not by family income.
   (A) Plan A. will provide full service benefits to all subscribers whose basic income is less than $2500.
   (B) Plan B. will provide full service benefits for those subscribers whose basic income is $2500 but less than $5000.
   (C) Plan C. will provide full service benefits for those subscribers whose basic income is $5000 but less than $7500.

Those subscribers whose income is in excess of $7500 may purchase only Plan C. In this event the total fee shall be the result of agreement between the patient and his physician. The Plan will pay the applicable "Dollar Allowance" to the physician.

PLANS A, B, C and D (M) Plan "A" is the contract in effect with a subscriber whose annual income is less than $2,500.00;
Plan "B" is the contract in effect with a subscriber whose annual income is not less than $2,500.00 but less than $5,000.00;
Plan "C" is the contract in effect with a subscriber whose annual income is not less than $5,000.00 but less than $7,500.00;
Plan "D" is the contract in effect with a subscriber whose annual income is not less than $7,500.00.

7. The insurance carrier shall be responsible for classification of subscribers and appropriate designation of the Plan in which they must be enrolled. Income designation shall reflect the subscriber's current rate of pay projected on an annual basis. This designation shall be reviewed annually and changed as indicated by the review.

ANNUAL INCOME (L) "Annual Income" is the rate of pay of the subscriber at the place of employment where he became a member, effective on the date of application to Blue Shield and upon renewal of each succeeding anniversary date assigned by Blue Shield to subscribers enrolled at that place of employment computed as follows:
In the case of hourly rated employees, the base hourly pay rate including cost of living allowance, if any, extended by 2080 hours;
In the case of salaried employees the rate of salary including cost of living allowance, if any, extended by an appropriate number of days, weeks or months to equal one year;
In the case of employees paid on a commission or incentive basis, the amount earned by the subscriber at such place of employment in the twelve months period prior to such application or anniversary, or if there employed less than twelve months an amount equivalent to the average earned by all employees there similarly so employed, or an amount determined by such other method as may be agreed upon.

2. All benefits will be on a service basis consistent with the principles set forth in Section D. except where a subscriber voluntarily occupies a private room in a hospital.

BASIS OF SERVICE BENEFITS

1. The Michigan State Medical Society will develop a "Relative Value Scale" which will assign to the individual surgical, obstetrical and other medical services a value in units proportional to the relative value of that service. The Society will determine the applicable value of one unit for each class of benefit. By multiplying the number of units assigned to a procedure by the value of one unit, the "Dollar Allowance" for that procedure is obtained.
2. (A) The Michigan State Medical Society will establish unit values for medical, surgical and obstetrical procedures and anesthesia for each of the Plans.
   (B) For diagnostic laboratory procedures and for all radiologic procedures, the unit value will be the same for all Plans.
   (C) For any optional benefits offered by a carrier, the Society will establish appropriate unit values.
3. Until the Michigan State Medical Society establishes a "Relative Value Scale," the scale developed by the California Medical Association shall be used.
4. No participating physician may charge more for a particular service rendered a subscriber than the "Dollar Allowance" payable for that service under the subscriber's contract. A subscriber covered by Plan C., whose income is designated as in excess of $7500, however, shall be responsible for any part of fees to which he agrees with his physician in excess of the applicable "Dollar Allowance."

Charges by Physicians

Section 5

PARTICIPATING: Participating physicians rendering services to members under Plans A, B, and C will make no charge to the member for any service to which the subscriber is entitled hereunder, except as provided in respect to Class II Services, and except as provided below. Participating physicians may at their option render services under Plan D with or without charge to the member.

Participating physicians may make a charge to any member:

(1) If the member shall request and occupy private room accommodations in the hospital. This exception (1) shall not apply to a member who is involuntarily compelled by nature of illness and on the order of the physician in charge of the case to be placed in such private room.

(2) If the member shall be entitled to recover damages by reason of, or reimbursement for the cost of, the services or for the injury, accident or condition occasioning the services, except from insurers on policies of insurance issued to and in the name of the subscriber, the payment made to the physician by Blue Shield shall be considered to be on account of the reasonable value of the services, and the difference, if any, between such reasonable value and the amount paid by Blue Shield shall be a liability of the member to the physician payable out of such damages or reimbursement if, as and when recovered by the member. Such additional charge, if any, shall be the liability of the member and not of Blue Shield.

(3) If the member shall be entitled to benefits under Plan D: In the event conditions (1), (2) or (3) above apply, Blue Shield will pay the participating physician for services rendered, its then prevailing scheduled fee. Payments as provided in Section 3 paragraph (2) hereof, and the additional charge, if any, shall be the liability of the member.

NON-PARTICIPATING: If, in an emergency, the member shall utilize the services of a non-participating physician, the obligation of Blue Shield shall be limited to payment of an amount not in excess of the lesser of the physician's charge or the applicable scheduled fee, for such service subject to all the terms, limitations and conditions as would apply had the services been rendered by a participating physician and further subject to receipt by Blue Shield of reports of such services rendered, as required of participating physicians under Section 10, within ninety (90) days of rendition of such services.

Extension of the income ceiling to $7,500 does NOT extend service benefit coverage to any larger segment of the population of Michigan than did the original $2,500 plan in 1940 and the $5,000 plan in 1950.

The charts on the following page show graphically that the per cent of families who will now fall under a $7,500 ceiling is virtually the same as that percentage who have received service benefits over the years. THE IDEA IN 1940 and 1950—AS NOW—WAS TO PROVIDE SERVICE BENEFITS TO THE MAJORITY OF PEOPLE IN MICHIGAN.

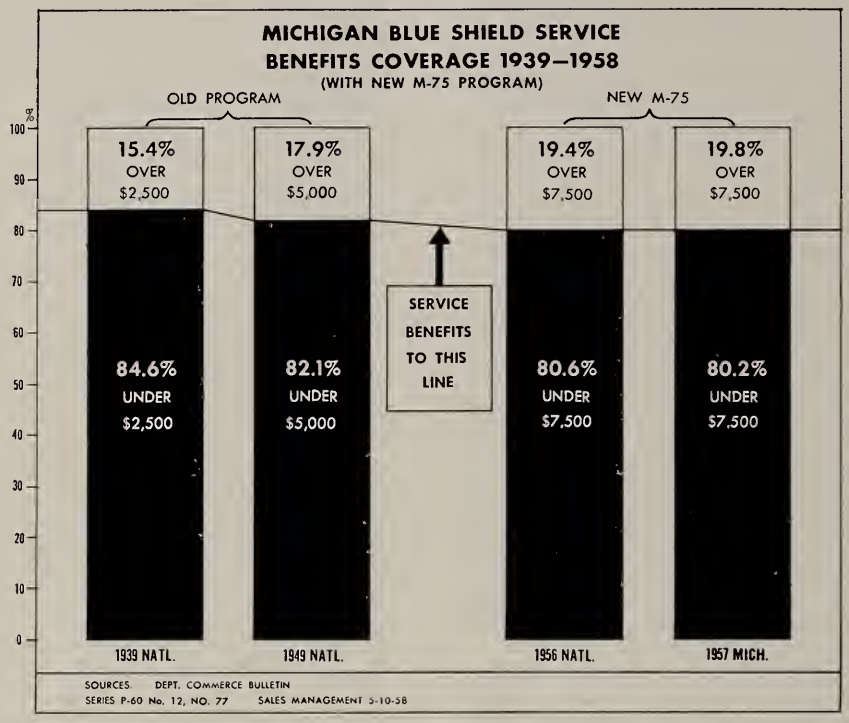
In short, the new program constitutes NO DEVIATION from the original and long-established principle of the medical profession in Michigan and Michigan Blue Shield in relation to the percentage of people who fall under service benefit coverage.

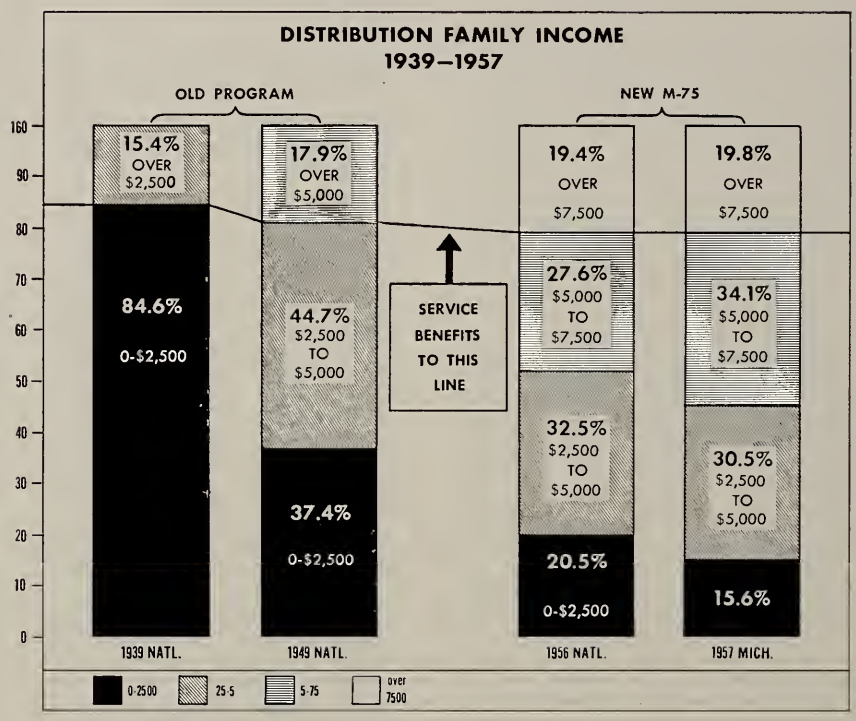
The answers to two specific questions in the Doctor-Opinion Survey of last year verify this:

To the Question: "Do you believe Michigan Medical Service's Medical Service Principle should be available only to low income groups (Under $5,000 income)?" *the answers were 83.1 per cent who said they did NOT think it should be so limited.*

In the matter of establishing an income ceiling above $5,000, Michigan and Michigan Medicine is not pioneering in establishing a pattern.

It is *just catching up* to the pattern already established





And to the Question: "Would you favor placing the income limit in a new Michigan Medical Service Contract at $7,500 if the present $5,000 income limit fee schedule were raised by 32 per cent?" *the answers were YES by 68.1 per cent.*

by *half the other Blue Shield Plans in the U. S. and Canada.*

Right now thirty-six of the seventy-two Blue Shield Plans have income ceilings in excess of $5,000, as reported by the National Blue Shield executive office.

Here's how they line up:

Full-service *regardless of income*	8
Income Limits, *$7,000 to $10,000*	11
Income Limits, *$6,000 to $6,800*	17
TOTAL WITH INCOME LIMITS *above $5,000*	36

Although the M-75 contract offers service benefits under three separate re-evaluated fee schedules ($2,500, $5,000 and $7,500) which supposedly embrace about 80 per cent of the population, it does not follow that 80 per cent of a participating doctor's practice is governed by this program. The accompanying chart presents the actual facts as they are today.

First of all, present Michigan Blue Shield enrollment covers about 47 per cent of the state's population. *This leaves 53 per cent not covered.*

In addition, the maternity benefit under this program is not in fact, a true service benefit. The actual delivery fee is, *but pre and post natal care*—an integral and substantial factor in the care and management of an obstetrical case—is *not* covered by the program.

The 1957 Blue Shield figures show that 15.6 per cent of total services were for delivery. Relate that to enrollment—just under half the population—and it means 7.5 per cent of a doctor's patients are NOT subject to straight service benefits in this maternity area.

Add this to the 53 per cent who are *not covered* at all by the program, and the average per cent of patients not subject to the service provision is up to 60.5 per cent. Add to that the 19.8 per cent whose income, according to the Sales Management figures, exceeds $7,500, and it means another 10 per cent not subject to service benefits in Blue Shield enrollment.

Thus, final figures show that actually *on the average only 30 to 35 per cent of a doctor's practice (patients) is actually subject to service benefits.*

Now this would seem to be a good point at which to review the method which the Principles state shall be used to determine income ceiling classification. It is on the basis of the subscriber's annual rate of earning and *assigning him to the program which matches that earning rate.*

Remember, this is reviewed *each year,* and it is based on the subscriber's *hourly rate* times 2,080 hours (which makes the broad assumption that he will be working forty hours a week, fifty-two weeks each year).

There were glaring weaknesses in the previous method of determining whether or not a patient was eligible for service benefits.

First of all, up to now, the subscriber had a choice of income ceiling plans regardless of what his income might be. The fact that a patient had a $2,500 income coverage was no indication—let alone a guarantee—that his annual income was below that figure. This left the matter of whether a patient actually qualified for service benefits entirely up to the doctor. And by and large, there was no adequate method for him to make such a determination.

He could guess or he could ask the patient. Neither method is particularly accurate. Or conceivably he could require his patients to sign a legal affidavit of family income, which would not lead to the best patient relationship.

The Doctor-Opinion Survey last year seemed to bear this out. In answer to the question:

"Do you want Michigan Medical Service (Blue Shield) to be responsible for informing doctors regarding income categories of all Blue Shield subscribers?" *61.4 per cent said YES—devise some method to do that.*

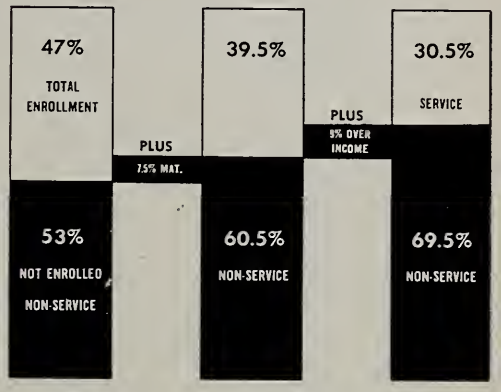
As we saw in the comparison of the Principles to the M-75 contract, the method was spelled out:

"The income level shall be determined by a *projection of the current rate* of earnings of the basic wage-earner in the family and not by family income."

Now this is reviewed each year, and if the hourly rate times 2,080 hours puts him into a higher or lower income ceiling category, the subscriber is automatically placed in that new category.

Thus, the doctor knows from his patient's Identification Card Service Number not only what his income ceiling plan is, but is assured that this reflects his *projected* annual income accurately *as of the time of service.*

1957 ESTIMATED AVERAGE PERCENT OF A DOCTOR'S PATIENTS NOT ENTITLED TO SERVICE BENEFITS



There are bound to be some inequities in this arrangement. There will be cases where the subscriber is not the sole wage earner in the family and where family income is in excess of what his wage projection alone indicates.

The best available figures, however, indicate that this additional income is usually not enough to change the income category based on projected earnings in the vast majority of cases.

For every subscriber, for example, who has an income of about $7,200 (entitling him to service benefits) but who has a working wife whose contribution would place the family income over $7,500, there are many subscribers without working wives whose income is about $5,100 a year. On these, the doctor is entitled to and gets benefits reflecting an income level of up to $7,500 a year because that is the Plan into which the $5,100 yearly wage projection puts the subscriber.

In the main, it can be assumed that these "inequities" pretty much cancel each other out.

Let us take a look at some data pertaining to this problem of working wives and what total effect they have on family income.

For example, the April, 1958, Report of the U. S. Department of Commerce on Consumer Income (Series P-60, No. 27) reports that in 27 per cent of all husband-and-wife families, the wife works *to some extent.*

That sounds like an impressively large figure until you realize it is qualified by the phrase: *to some extent.* That changes the picture considerably.

The Federal Reserve Bulletin for August, 1957, reported in its study that: *"The high frequency of low income shown for wives reflects the prevalence of part-time and part-year employment."*

Remember that the wife works in only 27 per cent of these husband-wife families and the Federal Reserve Bulletin goes on to say:

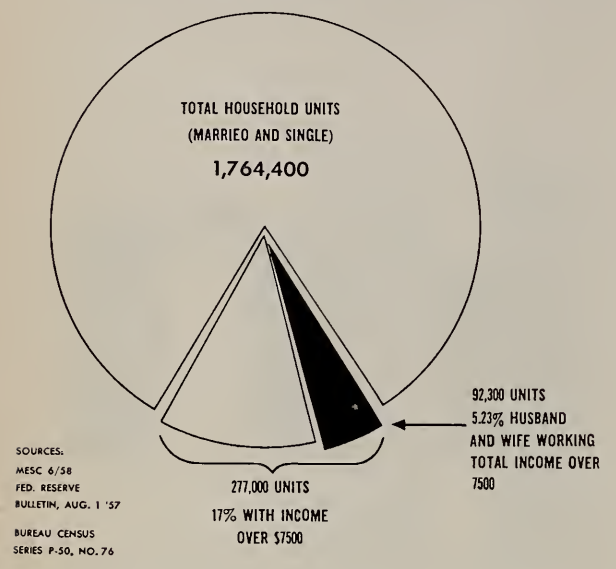
"Only one-third of all employed wives worked full-time throughout the year."

The other two-thirds worked only part-time, meaning that of all husband-wife families, *only about 10 per cent involved* a full-time working wife.

From the tables in the same April, 1958, Report of the U. S. Department of Commerce referred to above, here is how *median income* is affected by the working wife where the husband is an all-year-round worker:

All Husband-Wife Families	*Median Income, 1956*
(average of all where wife works and does *not* work)	$5,561
When Wife Works	$6,575
When Wife Does *Not* Work	$5,244

THIS SHOWS PERCENT OF MICHIGAN HOUSEHOLDS OVER $7,500 INCOME WHERE HUSBAND AND WIFE BOTH WORK



This shows that in families where the wife works, her median contribution is about *$1,339.* WHAT IS SIGNIFICANT IS THAT THIS MEDIAN INCOME RANGE FALLS WELL WITHIN THE SAME BLUE SHIELD INCOME RANGE (PLAN C, $5,000-$7,500) WHETHER THE WIFE IS WORKING ($6,575) or *NOT WORKING* ($5,244).

But let's carry it one step farther. Out of the total number of Michigan Spending Units, what percentage of these Spending Units which exceed the Service Benefit Ceiling of $7,500 are *Husband-Wife Units where the wife is working and thus her income could be responsible for family income exceeding the $7,500 ceiling?*

These figures were derived from:

1. The June 15, 1958, Report of the Michigan Employment Security Commission, which showed the total number of Non-Farm Wage and Salary Workers employed in Michigan and the number and per cent who were male and female.
2. Table No. 1, Bureau of Census Report, Series P-50, No. 76. It was used to determine what percentage of employed females were married, living with spouse and employed and the remaining per cent who were single, widowed, divorced or separated and employed. These national figures were applied to Michigan work force to determine the numbers as applied to the Michigan work force.
3. Ratios of per cent of these various categories whose incomes exceeded $7,500 taken from the Federal Reserve Bulletin, August, 1957, Supplementary Table 2, based on a study survey of Consumer Finances in co-operation with the Survey Research Center of the University of Michigan.

Here is what they show:

1. *Approximately 17 per cent of all spending units have income over $7,500.* (A spending unit is a household (representing single or married families).)
2. But the only possible area of Spending Units not accurately reflecting the limitations of the $7,500 income ceiling on the basis of subscriber rather than "family" income are the Spending Units classified as "husband-and-wife, both employed." Here there is the possibility that it is the additional income of the wife (or husband) that puts this unit in the "over $7,500" bracket while the income of the subscriber would indicate he was entitled to service benefits.

The figures show that 304,600 Spending Units out of the total of 1,764,400 are units in which the husband and wife are both working. And of that 304,600 husband-wife working group, 92,300 units are in the over-$7,500 bracket.

Thus out of the total of 1,764,400 Spending Units, only 92,300/1,764,400 or 5.23 per cent are in the over-$7,500 bracket that could possibly be getting service benefits to which they might not be entitled on the basis of the subscriber income alone.

Details, derivation and sources of these figures are carried on the following tables.

NON-FARM WAGE AND SALARY WORKERS IN MICHIGAN
June 15, 1958
Source: Michigan Employment Security Commission

Area	Total Male and Female	Female
Detroit	1,114,000	300,400
Battle Creek	42,600	12,100
Bay City	24,500	7,400
Benton Harbor	36,000	12,200
Flint	104,200	24,100
Grand Rapids	104,800	37,000
Jackson	36,000	11,000
Kalamazoo	50,000	13,900
Lansing	66,900	20,400
Muskegon	43,800	11,900
Port Huron	24,100	6,600
Saginaw	50,900	12,100
Upper Peninsula	65,600	15,200
Sub-total	1,763,400	484,300
Other areas	305,600	83,900*
Total state	2,069,000	568,200**

*Estimated, based on ratio of female workers for specified areas (484,300/1,763,400 equals 27.46 per cent).
**Includes estimate for "other areas."

Not only was the method of determining and assigning income ceilings changed, but a relative value unit scale was used to develop three new fee schedules—a $2,500, a $5,000 and a $7,500.

Application of the relative value unit method resulted in a fee schedule with *average increases in fees in the surgical schedules of:*

21.3% in the $2,500 surgical fee schedule
12.5% in the $5,000 surgical fee schedule
34.9% in the new $7,500 surgical fee schedule over the old $5,000 schedule.

Application of this relative value unit method to fees for medical-in-hospital benefits resulted in similar average increases:

Under the $2,500 Schedule
15.0% increase for the average 10-day stay
22.9% increase for 20-day stay
18.0% increase for 30-day stay
Under the $5,000 Schedule
11.7% increase for the average 10-day stay
17.5% increase for 20-day stay
12.2% increase for 30-day stay
Under new $7,500 Schedule (over old $5,000)
33.9% increase for the average 10-day stay
41.0% increase for 20-day stay
34.6% increase for 30-day stay

Important: Note that the new $7,500 surgical schedule is 34.9% higher than the old $5,000 schedule and is 33.9% higher for in-hospital medical care.

This more than meets the requirements in Question No. 21 in the Doctor-Opinion Survey we cited earlier: *That 68.1 favored a $7,500 income ceiling if fees were 32% above the old $5,000 schedule.*

Total female non-farm employment in Michigan as of June 15, 1958 ..... 568,200(a)
Single, widowed, divorced or "separated" women in employment—
Per cent of total female employment ..... 46.4%(b)
Number ..... 263,600(c)
Married women, living with spouse, in employment—
Per cent of total female employment ..... 53.6%(b)
Number ..... 304,600(c)

ESTIMATED NUMBER OF UNITS BY AMOUNT OF ANNUAL INCOME OF FAMILY OR SPENDING UNIT

	All Income Amounts	Under $7,500	$7,500 & Over
Single persons:			
Male (22.5%) (b)	337,700	579,700(d)	21,600(d)
Female	263,600		
Married persons:			
Husbands and wives, both working	304,600	212,300(d)	92,300(d)
Husbands only working (77.5%)	858,500	695,400(d)	163,100(d)
Total spending units	1,764,400	1,487,400	277,000

CONCLUSIONS

1. Approximately 17 per cent of all spending units have income over $7,500 a year (277,000/1,764,400).
2. Of all spending units, "working-wife" families represent only 5.23 per cent of the total spending units where annual income exceeds $7,500 (92,300/1,764,400).

(a) Source, Michigan Employment Security Commission.
(b) Table No. 1, Bureau of Census Report, Series P-50, No. 76.
(c) Derived.
(d) Based on ratios developed from Federal Reserve Bulletin, August, 1957, Supplementary Table 2, p. 892.

Now let us see what these two important changes—assignment of subscribers to income ceilings and increases in the fee schedules—mean in terms of changes in the distribution of enrollment within these income ceilings and how it will affect benefit payments to doctors.

All these calculations are based on the conversion of all subscribers to the M-75 Plan.

Let's take redistribution of enrollment first:

Remember that under the old Program, there are only two income classifications—$2,500 and $5,000—and that the subscriber has his choice of either regardless of his income. His choice does not necessarily reflect his income and the figures for enrollment under the old Program as of the end of 1957 certainly reflect that, when compared with the best available breakdown of income status for Michigan families—(the report by *Sales Management* of family income for 1957 in Michigan as reproduced below).

In 1957, under the old Program 41.3 per cent of Michigan Blue Shield members were enrolled under the $2,500 income contracts and 58.7 per cent under the $5,000 income contracts. This is at wide variance with the actual income distribution of Michigan families as indicated by the *Sales Management* figures of:

Income
under $2,500 (assigned to $2,500 contract) 15.6%
between $2,500 and $5,000 (assigned to $5,000 contract) 30.5%
between $5,000 and $7,500 (assigned to $7,500 contract) ..... 34.1% } 53.9%
over $7,500 (assigned to $7,500 contract but not subject to service benefits) ..... 19.8% }

Net result of the new M-75 program with assigned income level classifications puts a much smaller percentage of enrollment in the low $2,500 bracket (15.6 per cent as against the present 41.3 per cent) puts 30.5 per cent in the $5,000 bracket and 53.9 per cent in the new $7,500 bracket where average fees are nearly 35 per cent higher than for the old $5,000 bracket that covered nearly 60 per cent.

One additional important point about the new M-75 program. It automatically provides in-hospital medical coverage for ALL subscribers. The old program gave groups a choice of surgical-only coverage—and the result was that about 20 per cent of the enrollment was NOT covered for in-hospital medical benefits.

The combined effect of:

1. In-hospital medical coverage for ALL subscribers.
2. Higher average fee schedules in all income ceiling plans.
3. Proper distribution of enrollment in the exact income schedule matching the subscriber's annual wage (which puts a much higher percentage in the higher fee schedule plans).

All adds up to far higher dollar benefits paid out to the doctors of Michigan.

How much more?

In 1957, for all services, Michigan Blue Shield paid benefits of $49,845,000 at the rate of an average of *$36.36 per service.* (This average-per-service is relatively low for it includes all the high-frequency, low-cost services).

Under the M-75 program, it is estimated that with the same enrollment, Blue Shield will pay benefits of $67,000,000 at the rate of an average of *$48.35 per service.*

That's an increase of about 34.4 per cent in total payments to doctors and about a 33.2 per cent in the average payment per service.

A detailed breakdown of comparisons between the old coverage and the new M-75 in the areas of surgical payments and in-hospital medical payments is carried on the following pages to show the increases in each of these areas separately.

For example, in the area of surgical payments (including x-ray and anesthesia services), here are the figures:

In 1957, Michigan Blue Shield paid surgical benefits of *$41,838,015* at the rate of an average of *$34.62 per service.*

Under the M-75 program it is estimated that with the same enrollment, Blue Shield will pay benefits of *$54,727,626* at the rate of an average of *$45.35 per service.*

That's an increase of 30.8 per cent in payments to doctors and a 30 per cent increase in the average payment per service.

In the area of In-Hospital Medical care, in 1957 Michigan Blue Shield paid benefits of *$8,007,019* at the rate of an average of *$47.41 per service.*

Under the M-75 program, it is estimated that with the same enrollment, Blue Shield will pay benefits of *$12,432,025* at the rate of an average of *$60.85 per service.*

That's an increase of 55.2 per cent in payments to doctors and a 28 per cent increase in the average payment per service.

Let us now leave these specifics of Blue Shield and the M-75 program and take a look at what has been happening in the general economic picture since 1939 when Michigan Blue Shield was started.

What's been happening in terms of general consumer income; what's been happening in terms of the income of the medical profession; and what's been happening in terms of actual purchasing power based on the 1939 dollar?

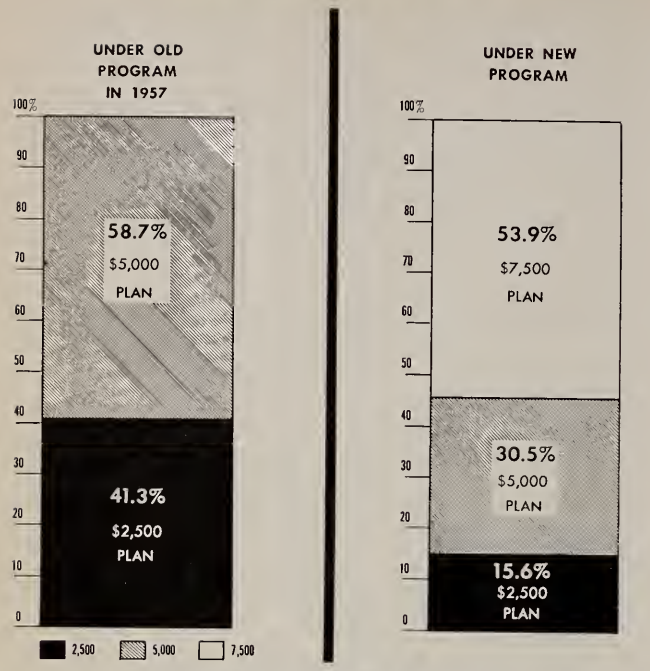
First of all, let's look at the purchasing power of the dollar and relate it to the various income level groups.

The U. S. Department of Labor reports that using the standard of 100 cents of purchasing power for the 1939 dollar, the dollar in June 1958 represented only 48 cents—a little less than half!

So in terms of 1939 purchasing power:

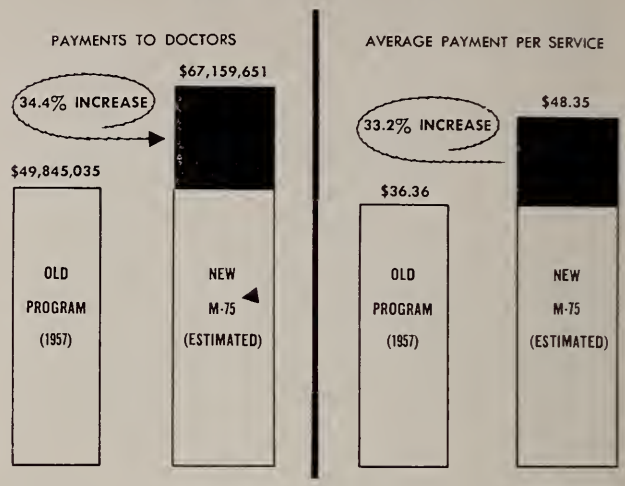
The $2,500 income group in purchasing power now equals only $1,200.

ENROLLMENT DISTRIBUTION



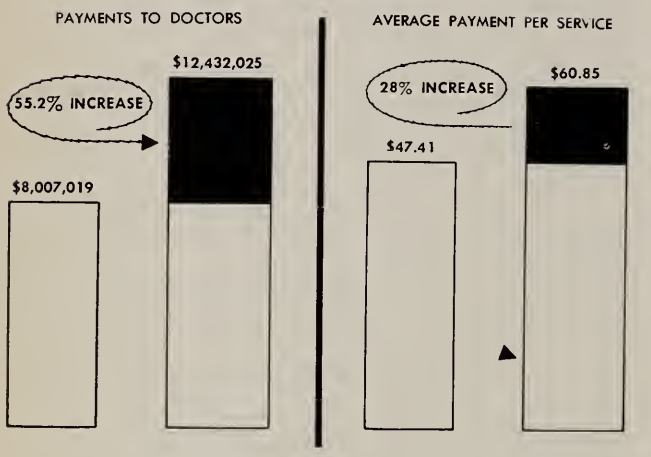
COMPARISON OF BLUE SHIELD PAYMENTS UNDER THE OLD PROGRAM AND NEW M-75

(SURGICAL AND IN-HOSPITAL MEDICAL)



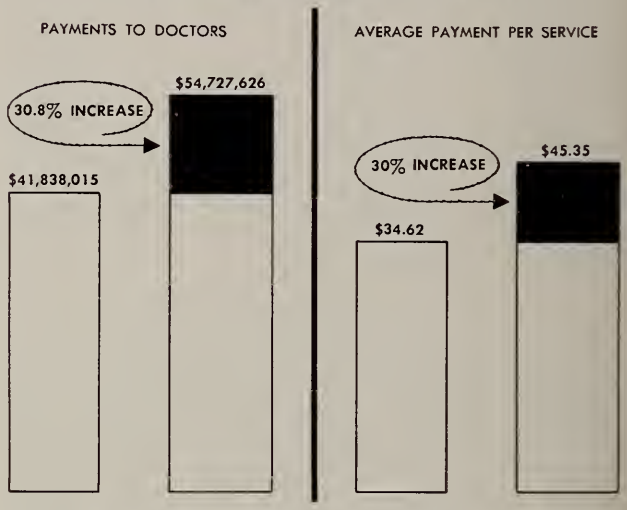
COMPARISON OF BLUE SHIELD IN-HOSPITAL MEDICAL PAYMENTS

UNDER OLD PROGRAM AND M-75



COMPARISON OF BLUE SHIELD SURGICAL

PAYMENTS UNDER OLD PROGRAM AND NEW M-75



TOTAL CARE (MEDICAL AND SURGICAL) UNDER OLD $2,500 AND $5,000 CONTRACTS

(Based on Enrollment of 3,750,000 in calendar year of 1957)

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract, 41.3% of enrollment	1,551,773	$18,746,472.92	593,729	$31.57
$5,000 contract, 58.7% of enrollment	2,199,078	$31,098,856.35	783,577	$39.68
Total all contracts, 100% of enrollment	3,750,811	$49,845,035.27	1,377,307	$36.36

BREAKDOWN OF ALL CARE (SURGICAL AND MEDICAL) UNDER THE NEW M-75

(Based on Enrollment of 3,750,000 in calendar year of 1957)

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract, 15.6% of enrollment	585,000	$ 8,887,085	231,810	$38.33
$5,000 contract, 30.5% of enrollment	1,143,750	$18,796,721	418,237	$44.94
$7,500 contract, 53.9% of enrollment	2,021,250	$39,475,845	739,067	$53.41
Total all contracts, 100% of enrollment	3,750,000	$67,159,651 (34.4% higher)	1,389,114	$48.35 (33.2% higher)

TOTAL SURGICAL CARE ONLY UNDER OLD $2,500 AND $5,000 CONTRACTS
(Calendar year of 1957)
Involves approximately 3,750,000 members (100% of enrollment).

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract (41.3% of enrl.)	1,551,773	$15,731,674.27	520,868	$30.20 (M-75 averages 21.3% higher)
$5,000 contract (58.7% of enrl.)	2,199,078	$26,106,341.31	687,535	$37.97 (M-75 averages 12.5% higher and M-75 $7,500 is 34.9% higher)
Total, both contracts (100% of enrl.)	3,750,811	$41,838,015.58	1,208,403	$34.62 (under M-75 will average 30% higher)

BREAKDOWN OF COVERAGE FOR SURGICAL CARE ONLY UNDER THE NEW M-75
(Based on Enrollment of 3,750,000 in calendar year of 1957)

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract, 15.6% of enrollment	585,000	$ 7,168,088	195,689	$36.63 (21.3% higher than old contract)
$5,000 contract, 30.5% of enrollment	1,143,750	$15,268,415	357,467	$42.71 (12.5% higher than old contract)
$7,500 contract, 53.9% of enrollment	2,021,250	$32,291,123	631,673	$51.12 (34.9% higher than old contract)
Total all contracts, 100% of enrollment	3,750,000	$54,727,626 (30.8% higher)	1,184,829	$45.35 (average is 30% higher)

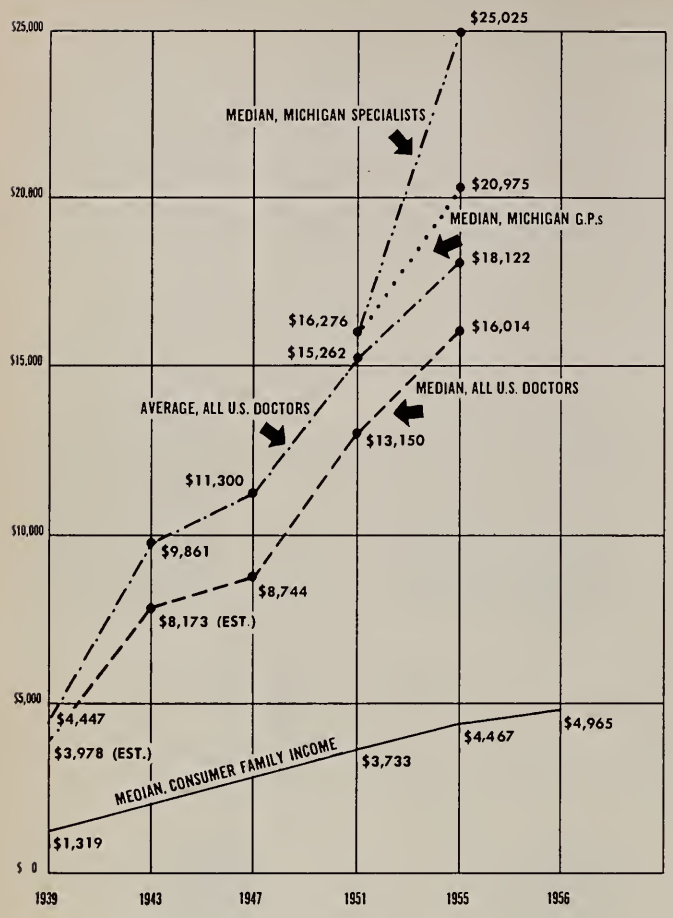
TOTAL IN-HOSPITAL MEDICAL ONLY CARE UNDER OLD $2,500 AND $5,000 CONTRACTS
(Calendar year of 1957)
(Involved approximately 3,000,000 members—79.6 per cent of total enrollment—
remaining 750,000 had surgical-only)

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract (31.4% of total enrl.)	1,179,288	$3,014,798.65	72,861	$41.38 (M-75 $2,500 averages 15% higher)
$5,000 contract (48.2% of total enrl.)	1,807,331	$4,992,221.04	96,042	$51.98 (M-75 $5,000 averages 11.7% higher)
Total, both contracts (79.6% of total enrl.)	2,986,619	$8,007,019.69	168,904	$47.41

BREAKDOWN OF COVERAGE FOR IN-HOSPITAL MEDICAL CARE ONLY UNDER THE NEW M-75
(Based on enrollment of 3,750,000 in calendar year of 1957)

	Members Covered	Amount Paid	Services Rendered	Average Amount Per Service
$2,500 contract, 15.6% of enrollment	585,000	$ 1,718,997	36,121	$47.59 (15% higher than old contract)
$5,000 contract, 30.5% of enrollment	1,143,750	$ 3,528,306	60,770	$58.06 (11.7% higher than old contract)
$7,500 contract, 53.9% of enrollment	2,021,250	$ 7,184,722	107,394	$69.60 (33.9% higher than old $5,000 contract)
Total all contracts, 100% of enrollment	3,750,000	$12,432,025 (55.2% higher)	204,285	$60.85 (average is 28.3% higher)

MEDIAN INCOME 1939—1955-56



SOURCE: MEDICAL ECONOMICS QUADRENNIAL SURVEYS

The $5,000 income group in purchasing power now equals only $2,400.

The $7,500 income group in purchasing power now equals only $3,600.

The charts following show what has happened to consumer family income and the income of doctors in the period covering 1939 to 1955-56—the latest date for which reliable comparable data are available.

Consumer family income figures are from the Department of Commerce. Figures on income of the medical profession are from the various Quadrennial Surveys made by *Medical Economics.*

(*Medical Economics* is the only source of figures on medical income later than 1949—latest date covered by a Department of Commerce Survey on doctor income. For the last comparable year—1947—there was less than $500 difference between the median income for doctors in the *Medical Economics* Survey and the Department of Commerce Survey).

The chart shows that median income for all consumers (households with a male head) has risen from $1,319 in 1939 to $4,956 in 1956—*an increase of about 376 per cent.*

The median income for all doctors in the U. S. has risen from an estimated $3,978 in 1939 to $16,016 in 1955—*an increase of about 402 per cent.*

The chart also shows that the median income of all Michigan doctors for 1951 was considerably higher than the national average.

It also shows that the median income both for Michigan General Practitioners and Specialists in 1955 was much higher than the national median. A second chart shows the median income of both GPs and Specialists in comparison to other representative states. Michigan stood the highest of *all* states in the Survey in median income both for GPs and Specialists.

It is significant to note that Michigan—with the highest median income for physicians—has the highest percentage of the population covered by Blue Shield with the exception of two very small plan areas—Delaware

MEDIAN INCOME OF MICHIGAN GPs AND SPECIALISTS COMPARED WITH OTHER STATES

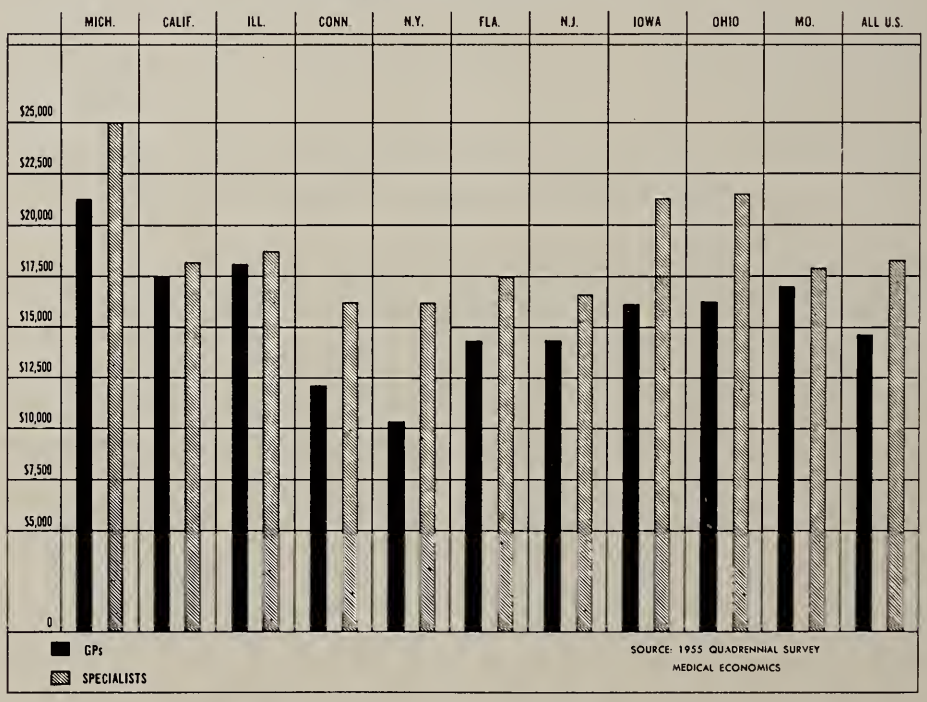


EXHIBIT 1—YEAR OF 1958

City	Manufacturing Industries 2080 Hours Times Average Hourly Wage	Plan	Income Limits
Detroit	$2.62 equals $5449.60	C	$5000-$7500
Battle Creek	2.43 equals 5040.40	C	5000- 7500
Benton Harbor	2.15 equals 4472.00	B	2500- 5000
Flint	2.54 equals 5283.20	C	5000- 7500
Grand Rapids	2.25 equals 4680.00	B	2500- 5000
Jackson	2.40 equals 4992.00	B	2500- 5000
Kalamazoo	2.16 equals 4492.80	B	2500- 5000
Lansing	2.55 equals 5304.00	C	5000- 7500
Muskegon	2.38 equals 4950.40	B	2500- 5000
Saginaw	2.38 equals 4950.40	B	2500- 5000

Source: Michigan Labor Market, Michigan Employment Security Commission, May, 1958 issue.

EXHIBIT 2—YEAR OF 1951

City	Manufacturing Industries 2080 Hours Times Average Hourly Wage	Plan	Income Limits
Detroit	$1.91 equals $3972.80	B	$2500-$5000
Flint	1.85 equals 3848.00	B	2500- 5000
Grand Rapids	1.69 equals 3515.20	B	2500- 5000
Lansing	1.90 equals 3952.00	B	2500- 5000
Muskegon	1.87 equals 3889.60	B	2500- 5000

Source: Michigan Labor Market, Michigan Employment Security Commission, July, 1951 issue.

and the District of Columbia. In 1957, 47.7 per cent of the population of Michigan had Blue Shield.

From the beginning, Michigan Medical Service—started by and sponsored by the doctors of Michigan—has been one of the fastest growing Blue Shield Plans—was the first to attain an enrollment of One Million Members and the first to attain the enrollment of Two Million Members.

It would seem that the growth of Blue Shield in Michigan has been an important factor in the economic position of Michigan physicians.

Now the figures we have used for the most part in this report in regard to the percentage of subscribers who will fall within the various income limit plans were necessarily statewide figures.

These reflect the sum total of Michigan Medical Service current statewide coverage and sum total payments to doctors on this statewide average.

However, we are sure you are aware that these percentages will vary in specific areas. In those areas where living costs are higher and wage rates are higher, there will be a higher percentage of subscribers in the higher $5,000-$7,500 plan, which of course has a higher benefit schedule.

The two exhibits above give you an idea of how this may vary. Exhibit No. 1 takes ten different areas and by comparing the average hourly wage times 2,080 hours, shows under which income limit plan the average subscriber will fall in each area. The figures are for the average hourly wage this year in manufacturing industries.

You will note that areas such as Detroit and Lansing fall in the Plan C, $5,000-$7,500 income limit area whereas Grand Rapids, Benton Harbor and others fall in the Plan B, $2,500-$5,000 income limit area.

Exhibit No. 2 is a comparison of all of those cities for which a comparison was possible in the year of 1951. Notice that NONE at that time would have fallen under Plan C ($5,000-$7,500).

M. L. Lichter, M.D., *Chairman*
J. J. Lightbody, M.D.
J. W. Logie, M.D.
R. L. Mainwaring, M.D.
D. G. Pike, M.D.
F. C. Ryan, M.D.
W. F. Strong, M.D.

E. G. M. Krieg, M.D.: Are the Principles of the Judicial Council of the American Medical Association and the Principles of Ethics as proposed in the 1947 group the same as the recent one that has been published?

M. L. Lichter, M.D.: These paragraphs were taken from the material sent to all of us by the American Medical Association, and are the interpretations of our Medical Ethics. The portion that I have quoted is still current and to my knowledge has not been rescinded by the House of Delegates of the American Medical Association.

I might say that the Committee was bound by the directives of this House of Delegates in seeing that the Principles were adhered to in the most meticulous detail, and I can assure you that if this material is examined you will find that this part of our obligation was conscientiously and accurately discharged.

S. L. Loupee, M.D. [Cass]: I move that this report be considered read.

[*The motion was duly seconded.*]

The Vice Speaker: It is moved and seconded that this report be considered read, as presented in the material that has already been given to you. Is there discussion? Those in favor of the motion, say "aye"; opposed, "no". The motion is lost. We shall proceed with the report, Dr. Lichter.

M. L. Lichter, M.D.: I can tell you that there are only a few minutes more, and I am sure I speak for the Committee when I say we appreciate the opportunity given by this House to complete the presentation of this report.

Before I make a very brief summary, there are two more charts that are now going to be shown, which indicate the hourly rate in various parts of Michigan in 1958 and in 1951. These have been multiplied by 2,080 hours to show the projected income. You can examine these at your leisure. We found them of great interest. *(See above.)*

[*Dr. Lichter read the report to the end.*]

M. L. Lichter, M.D., [*continuing*]: In this report we have shown the principles and the safeguards to the profession and the public. We have taken the principles and the contract and have done with it what is known as a cut-and-paste job, where you cut pieces of each out for comparison and paste them in their proper sequence to demonstrate conclusively that Michigan Medical Service followed the principles of this House of Delegates.

We have demonstrated that we are still concerned with the same segment of the population now as we were in 1940 and 1950. We haven't added any people. We have presented data showing that the use of wage earners' income alone is valid. We have shown the effect of the working wife's income on the total family income. Then we have shown what the payments under this new plan mean in terms of dollars not only to the people of Michigan but to the doctors as well. [*Applause*]

The Vice Speaker: This supplemental report of the Medical Care Insurance Committee will be referred to the Reference Committee on Medical Care and Prepayment Insurance.

I think we all realize how difficult it is to sit for such a long period of time listening to factual and statistical data, but The Council and the Speaker felt that certainly all the delegates should have this information so that they can talk intelligently about it, and you are all urged to attend the Reference Committee having to do with this particular material.

M. L. Lichter, M.D.: Mr. Vice Speaker, I arise for a point of privilege, if I may, sir.

The Vice Speaker: State your privilege.

M. L. Lichter, M.D.: I would request the privilege of the floor for Mr. J. C. Ketchum for the purpose of making a few remarks.

The Vice Speaker: If there are no objections by the delegates, Mr. Ketchum is recognized and may proceed.

Mr. J. C. Ketchum: I am not going to attempt to defend M-75 or Blue Shield or Michigan Medical Service in this matter which has been the subject of so much controversy for the past several weeks. I am going to state that I am proud of the part Michigan Medical Service has played in the discharge of the obligation which the House of Delegates—this body—voluntarily assumed last September.

No contractor was ever given a more detailed list of instructions than was Michigan Medical Service given by this House of Delegates in the principles you adopted last September. No contractor ever worked under as close supervision and inspection in putting together this structure, M-75, than was Michigan Medical Service, under the observation and inspection of your Medical Care Insurance Committee.

No inspector ever submitted to his principal in more clear detail than was submitted by your Medical Care Insurance Committee in its reports to The Council and the Executive Committee of The Council.

I am proud of the job that Michigan Medical Service has done and that my staff has done. I am proud of the actuaries who have promulgated the rates for this contract. I am proud of our attorneys who have drafted the legal language to put into contract form this list of specifications. I am proud of the Enrollment Department of Michigan Blue Cross and Blue Shield that has sold this contract—almost a record in presentation and commitments by our subscribers with us for the acceptance of M-75.

By the end of this current week, assuming the negotiations in the motor car industry are completed, we will have been committed to approximately 1,705,000 persons in the State of Michigan for benefits under M-75. This is common knowledge; I am not telling you anything new. All you have to do is to read the newspapers.

The effective date of these commitments will vary from some of them already in effect August 1 to, as near as we can tell, February 1; but they are commitments on which Michigan Medical Service will be expected to deliver.

Literally thousands of dollars and literally months and years of manhours have been put into the consideration of M-75 by labor, by industry and by thousands of people in the State of Michigan.

The public had a perfect right, after the publicity given the action of this House of Delagates last September, to assume that you meant what you said when you adopted this Statement of Principles. If you now wish to reconsider your action at that time, you must consider the price you will pay for reconsideration.

I think you have two alternatives: You can rescind the Statement of Principles, or you can deliver on it. The price of rescinding or repudiation of your voluntarily accepted commitments could very well be the loss of all the public relations work that you have done these past many years, and to live from here on with probably the poorest public relations you could conceive of; because not only will the public wonder whether your word is worth accepting in connection with prepayment, but it will undoubtedly wonder whether your word is worth accepting when you express yourselves on such things as polio immunization, social security and any other matters wherein you are concerned with your position and your support by the public.

What you do here today or this week can very well be the answer to what you call public relations from here on in. [*Applause*]

The Vice Speaker: The two presentations, that by Dr. Lichter and Mr. Ketchum, have been given for the information of the delegates, and I am sure there will be questions, perhaps a considerable number of questions, that you would like to ask Mr. Ketchum and also Dr. Lichter. They will be available in the Medical Care Insurance Reference Committee, so we urge all who are interested to attend that meeting.

[*The Speaker resumed the Chair.*]

The Speaker: Your Speaker expressed himself last night in his remarks and has made it very plain that he does not intend to indulge in any further comments. However, in an effort to put some facts before you, this presentation was made. In addition, your Speaker took the prerogative of attempting to get all the information possible by appointing an Auditing Committee of four members of this House of Delegates to get some figures concerning enrollment.

Will Dr. Engelke as Chairman of this Committee please come forward and give his report, as a matter of information to this House of Delegates.

O. K. Engelke, M.D. [Washtenaw]: This Auditing Committee consisted of Dr. John Wellman, Ingham; Dr. John W. Rice, Jackson, Dr. Richard A. Rasmussen, Kent, and myself.

On September 24, just a few days ago, we went to Lansing and examined the certificates of participation that were there. We checked them against the tabulations of certificates of participation that were signed. Many of these certificates were those of Active, Life and Emeritus members; also certificates from non-members.

We also checked the certificates that had been with-

drawn as of that date. We spent a good bit of time at it. Everything was placed at our disposal. We made what the Committee felt was a very thorough audit of acceptances to date.

I will now read the Committee's formal report to Kenneth H. Johnson, M.D., Speaker of the Michigan State Medical Society House of Delegates, from the Auditing Committee on Seal of Assurance Participation.

"Dear Doctor Johnson:

"This Committee met on September 24, 1958 in the Exeuctive Offices of the Michigan State Medical Society, and in accordance with your instructions of September 18, 1958 offers the following report:

Total signed contracts received as of this date	3,999
Total withdrawals from contracts received as of this date	86
Total contracts in force as of this date	3,913*
Total number of Active, Life and Emeritus members who are participating	3,399
Total number of nonmembers who are participating (465 nonmembers plus 49 interns and residents at the University of Michigan)	514
Total percentage of Active, Life and Emeritus members of MSMS who are now participating	57.9%
Total percentage of Active, Life and Emeritus members of MSMS who have withdrawn	1.4%
Total percentage of Active, Life and Emeritus members of MSMS who are undecided	40.7%

"The Auditing Committee on Seal of Assurance Participation finds the above figures to be correct, and the contracts indicated above to be presently in force to be valid.

"The Committee has also reviewed the count of contracts in force in the separate counties and the percentage based on the number of participants who are members as compared with the number of Active, Life and Emeritus members, and finds them to be correct.

"Based on membership records as of July 31, 1958, 514 participants in the contracts presently in force were neither Active, Life or Emeritus members. They are, however, all doctors of medicine and fall under such categories as interns and residents (49), those members delinquent in dues as of July 31, 1958, and nonmembers of MSMS who are presently participating in $2,500-$5,000 Michigan Blue Shield contracts.

"Respectfully submitted,
s/ Otto K. Engelke, M.D., *Chairman*
John M. Wellman, M.D.
John W. Rice, M.D.
Richard A. Rasmussen, M.D.

Dr. Johnson, the Auditing Committee is happy to turn this report over to you.

The Speaker: This report will be turned over to the Reference Committee on Medical Service and Prepayment Insurance for information.

The Speaker: I have been asked to make the following announcement:

Gold forks were to have been presented last evening to the Fifty-Year Awardees, through the courtesy and thoughtfulness of James Gerity, Jr., of Adrian, owner of Station WNEM-TV, Bay City, and other stations. However, these gold mementos of a happy occasion were somehow lost in the welter of boxes and packages stored in the hotel, and did not reach the Crystal Ballroom last evening. They are here today, and this is just to inform the Fifty-Year Awardees of 1958 that each will soon be receiving a piece of useful gold, mailed from the MSMS Executive Office next week.

[*The meeting recessed at 12 o'clock noon.*]

*The total number of participating doctors of medicine is equivalent to:
66.8 per cent of the total Active, Life and Emeritus membership enrollment of the MSMS, and
70.0 per cent of the total Active membership enrollment of the MSMS.

MONDAY EVENING SESSION

September 29, 1958

The meeting reconvened at 8:15 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

XV—26. PUBLICATION OF NAMES OF PHYSICIANS PARTICIPATING WITH BLUE SHIELD

R. A. Rasmussen, M.D. [Kent]:

"Whereas, it appears that a policy may be developing to publish the names of participating and nonparticipating physicians in Michigan Medical Service, and

"Whereas, such publication is discriminatory, damaging, restrictive and coercive to the profession and the individual physician, and

"Whereas, participation in any voluntary program is the prerogative of the individual; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society instruct Michigan Medical Service or any other company or organization that such lists shall not be published or otherwise disseminated."

The Speaker: This resolution is referred to the Reference Committee on Reports of The Council.

XV—27. ONE FULL DAY FOR REFERENCE COMMITTEE MEETINGS

E. J. Tallant, M.D. [Wayne]:

"Whereas, the proceedings of the reference committees are of extreme interest to all members, and

"Whereas, members may wish to attend all meetings of the reference committees; be it therefore

"RESOLVED: That hereafter one whole day of the session be specifically designated for reference committee activities; and be it further

"RESOLVED: That no other activity of the House of Delegates be conducted on this designated day."

The Speaker: I will refer this resolution to the Reference Committee on Rules and Order of Business.

XX. REPORTS OF REFERENCE COMMITTEES

XX-1. ON OFFICERS REPORTS

H. L. Gordon, M.D.: The Reference Committee on Officers' Reports considered the following reports:

XX—1(a). SPEAKER'S REMARKS

H. L. Gordon, M.D.: The Reference Committee accepts Dr. Johnson's remarks with appreciation, especially those remarks dealing with the integrity of the House of Delegates, and accepts his charge that all decisions in this House be made on the broad base line of what is best for the majority of doctors in this State.

The Reference Committee recommends approval of this report, and I so move.

C. W. Sellers, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(b). PRESIDENT'S REMARKS

H. L. Gordon, M.D.: The Reference Committee accepts Dr. Slagle's excellent report, and notes with satisfaction the imminent realization of a Michigan Association of the Profession. The success of this venture is assured through Dr. Slagle's efforts.

The Reference Committee recommends approval of this report, and I so move.

LOUIS JAFFE, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(c). PRESIDENT-ELECT'S REMARKS

H. L. GORDON, M.D.: The Reference Committee approves with pleasure the remarks of Dr. Saltonstall. Dr. Saltonstall is commended for his suggestion that we avoid embarking on any great new project this year but solidify the gains we have made.

The Reference Committee recommends approval of this report, and I so move.

W. S. REVENO, M.D. [Wayne]: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(d). REPORT OF DELEGATES TO AMA

H. L. GORDON, M.D.: The Reference Committee approves the report of the Delegates to the American Medical Association and commends them for their tireless effort and active participation in the AMA House of Delegates.

Dr. Hyland's cablegram to the House of Delegates is accepted and Mrs. Hyland's comments are approved.

The Reference Committee recommends adoption of this report, and I so move.

E. G. M. KRIEG, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(e). REPORT OF WOMAN'S AUXILIARY TO MSMS

H. L. GORDON, M.D.: The report submitted by Mrs. C. Allen Payne is accepted, and the Auxiliary is commended for their efforts in furthering the American Medical Education Foundation and their promotion of the magazine, *Today's Health.*

The Reference Committee recommends acceptance of this report, and I so move.

C. W. SELLERS, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(f). REPORT OF MICHIGAN STATE MEDICAL ASSISTANTS' SOCIETY

H. L. GORDON, M.D.: This report, given by Miss Marlouise Redman, is accepted, and this group is commended for extension of their membership and their forward progress in their educational program. We join with them in hoping that their next national assembly will be in Detroit.

The Reference Committee recommends acceptance of this report, and I so move.

L. R. LEADER, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—1(g). POLL ON SOCIAL SECURITY

H. L. GORDON, M.D.: Resolution 13 was referred to this Reference Committee for consideration. The Reference Committee accepts this resolution with the addition of a single word in the last paragraph, making the resolution read:

"Whereas, representative action of delegates to the American Medical Association can only stem from adequate knowledge of the opinions of their constituents, and

"Whereas, this knowledge can in some cases only be obtained by a properly regulated and properly worded referendum, and

"Whereas, without such opportunity for expression of opinion the membership may rightly feel that they are not being adequately represented, and

"Whereas, opinions of individuals may change over a period of years, and

"Whereas, our delegates to the American Medical Association in Michigan have been forced to act without the benefit of a recent opinion survey on certain matters; therefore, be it

"RESOLVED: That this opinion be obtained in the form of a stamped post card, self-addressed by the Michigan State Medical Society, with the following simple wording: 'Do you favor inclusion of doctors of medicine as participants in the present compulsory social security system? Yes——— No———.'"

The Reference Committee recommends adoption of this resolution as amended, and I so move.

V. A. NOTIER, M.D. [Kent]: Second the motion.

E. H. FENTON, M.D.: The resolution contained no duress. I think everyone realizes that social security is compulsory. I believe the word "compulsory" tends to denote a certain degree of feeling on the part of those who are putting out the questionnaire.

I would suggest that the word "compulsory" be deleted from this resolution. I so move.

S. L. LOUPEE, M.D.: Second the motion.

THE SPEAKER: Does the Speaker understand that the original resolution stated, "Do you favor inclusion of doctors of medicine as participants in the present social security system?"? The Reference Committee has suggested adding the word "compulsory." There is a substitute motion made, that the word "compulsory" be deleted. That is what you are voting on at the present moment, in the form of an amendment, if you wish.

LOUIS JAFFE, M.D.: I believe the inclusion of the word "compulsory" was not meant to be a directive, directly or indirectly, but was simply added for informative purposes, because all social security is compulsory as far as any group or profession is concerned.

Some physicians may feel that they are voting on a voluntary thing which they may take or not as they see fit, and it was for this reason that the word "compulsory" was included.

THE SPEAKER: Thank you, Dr. Jaffe. Is there further discussion?

C. W. SELLERS, M.D.: Is this an amendment to the original motion?

THE SPEAKER: That is correct. You are discussing the motion to delete the word "compulsory," made in the form of an amendment to the original motion.

[*The motion was put to a vote and was lost.*]

THE SPEAKER: The motion is lost. We will now vote on the report of the Reference Committee, which amended the original resolution to include the word "compulsory." Is there discussion of this matter?

[*The motion was put to a vote and was carried unanimously.*]

H. L. GORDON, M.D.: Mr. Speaker, I move that the report of this Reference Committee be accepted as a whole.

C. W. SELLERS, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

THE SPEAKER: Thank you very much, Dr. Gordon and the others on your Reference Committee.

XX—2. ON REPORTS OF STANDING COMMITTEES

XX—2(a). POSTGRADUATE MEDICAL EDUCATION COMMITTEE

E. G. M. KRIEG, M.D.: The first item is on page 104. Your Reference Committee approved the report of the Postgraduate Medical Education Committee as printed

in the Handbook, and commends the Committee for extending their teaching centers into new areas.

Mr. Speaker, I move the adoption of this portion of our report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*The Vice Speaker assumed the Chair.*]

XX—2(b). PREVENTIVE MEDICINE COMMITTEE

E. G. M. Krieg, M.D.: The report of the Preventive Medicine Committee and its sub-committees were approved, and your Reference Committee commends the steps taken to develop a Michigan conference on athletic diseases. The report of the Mental Health Committee was approved with the following recommendation: That greater emphasis be made in recognition and treatment of psychiatric disorders in general practice through State conferences, postgraduate courses and other similar meetings.

Also the report of the Child Welfare Committee was approved. It should be known that information on cases of poisoning can be obtained by telephone from the Poison Center of the University Hospital in Ann Arbor on a 24-hour basis.

I move adoption of this portion of the report.

C. W. Sellers, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—2(c). PUBLIC RELATIONS COMMITTEE

E. G. M. Krieg, M.D.: The report of the Public Relations Committee was approved as printed in the Handbook. I move its adoption.

C. L. Weston, M.D. [Shiawassee]: I second that.

[*The motion was put to a vote and was carried unanimously.*]

XX—2(d). ETHICS COMMITTEE

E. G. M. Krieg, M.D.: The report of the Ethics Committee was approved as printed in the Handbook. I move its adoption.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XX—2(e). LEGISLATIVE COMMITTEE

E. G. M. Krieg, M.D.: The report of the Legislative Committee was approved as printed in the Handbook. I move its adoption.

S. L. Loupee, M.D.: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

E. G. M. Krieg, M.D.: I move the adoption of this report as a whole, with the amendments as stated during the presentation of the Reference Committee's report.

C. L. Weston, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Vice Speaker: Thank you and your committee members, Dr. Krieg.

[*The Speaker resumed the Chair.*]

XI. MICHIGAN'S FOREMOST FAMILY PHYSICIAN

The Speaker: I would like to interrupt the House of Delegates at this time to introduce to you the man whom you have chosen as Michigan's Foremost Family Physician of the Year.

It has been my request that his son, Dr. Lawrence A. Drolett, a member of this House of Delegates, introduce him and his family. Dr. Drolett.

L. A. Drolett, M.D.: This, to me, is one of the greatest privileges I have ever had—the opportunity to introduce to you the doctor whom you chose last night as the Family Physician of the Year, my father, Fred J. Drolett, M.D.

[*The members arose and applauded.*]

Fred J. Drolett, M.D.: Ladies and gentlemen, may I start this off with a little levity. Larry said, "Don't make a speech!" I won't. I feel like two fellows who had imbibed rather freely one night. Coming home on that beautiful moonlit night, they passed a body of water on which the full moon was reflected in all its glory.

One said to the other, "Hey, what's that?"

"Why, that's the moon."

"The moon? What the hell am I doing up here?" [*Laughter*]

That is just the way I feel about this. This honor came to me as a perfect surprise. I was in bed last night, sound asleep, about 11:30, when I heard the telephone ring.

"This is Larry."

"What do you want?"

"Come down to Detroit tomorrow night, you and Mother."

"No, no; we're going to be there Tuesday."

"No, you're not. You're coming down tomorrow night. You have been elected Family Physician of the Year."

Well, I think that is on account of my age and maybe my good looks. I see Ken Johnson and Dr. Toothaker, President of our Society, sitting down here. Either one perhaps more of a family physician than I am. I came through the days when I couldn't afford to buy a horse. Finally, I could afford a horse, and I bought one and rode it for a couple of years. I sold it for $50 more than I had paid for it, and then I bought a car.

I have been through the mill. I went to the town of Lansing, which had a population of 14,000 when I went there and which has a population now of about 125,000. I sort of grew with the town.

I am proud of being a general practitioner. I have had a lot of fun and have done a lot of hard work. I have plowed through the snow up to my knees a good many times, and I have had to tie my horse in a farmer's barn and walk half a mile through the snow.

One thing that sort of gets me is when people call me and say, "Are you one of the doctors who makes house calls?" Ladies and gentlemen, that happens three or four times a week. When a thirty-year-old doctor will say, "I don't make house calls. Fred Drolett, across the way, makes them," that gets me.

I still like to practice, and I keep on practicing—but of course not as much as I used to. I have delivered babies in homes and have done a caesarean section on the kitchen table, and did a curettage and tied the patient up with a bedsheet a dozen times a week in the old days.

It has been a lot of fun, but I am glad I practiced medicine in the days when medicine was undergoing a change. In the fifty-one years I have been in practice, I have seen diphtheria eliminated. I have seen Pasteur come and go. Tuberculosis has been practically eliminated, as well as smallpox, typhoid fever, and now we have cancer. Folks, if you eliminate cancer something else will come along. There is no such thing as natural death. Something comes along—some organ gives up—and when you lick cancer there will be something else, because the human race will outlive the earth.

I have done my share, and I have been honored by several appointments. I have been President of my County Society; I have been chief of hospital staffs, and I have enjoyed every moment of it.

I am not trying to claim that it is all unselfish. I quit a good trade, making good money. I was a bookbinder, and I studied medicine because there was more money in it.

I look around at you fellows here tonight. I am seventy-nine years old, and if I had been an executive I might have been President of General Motors. At sixty-five they would have kicked me out with a gold watch and chain and a pat on the back. That's very nice, but the next morning there would be heartache.

None of you fellows is poor. You have all got good cars and good homes, and you wear good clothes. You are able to come and attend these meetings and spend a lot of money and have a lot of fun.

Ladies and gentlemen, there is no other profession in the world that will give all of that to you. I know old Dr. Bradley, over at Eaton Rapids, who said, "I have lost three fortunes and I am making a fourth one."

Medicine has given me a good living, although it was not all fun. I have a fine family and I have good health, a lot of friends (I hope), and a lot of fun. I wouldn't do anything else in the world but practice medicine, and I am going to practice as long as I can.

I have told my boys, "If you find that I am getting senile and don't know what I am doing, tell me so and I'll shut the door of the office in five minutes."

I see some of the men from my Society here. I see Johnny Wellman. Franklin Troost, and many others. I appreciate their being here. This is the greatest honor I have ever had in my life.

I cut loose today. I got up this morning. Someone had the radio turned on. If I had one phone call I have had fifty. I already have had a couple of boxes of cigars out of it. I hope somebody sends some good likker over. [*Laughter*]

At my age I can say this: Boys and girls, I thank all of you very much for this honor. It is the greatest honor I have ever had, and I hope I prove to you that I deserve it.

Thank you, and good night.

[*The members arose and applauded.*]

L. A. Drolett, M.D.: Members of the House, I would like to have you meet this man's greatest helpmate, my Mom.

[*The members arose and applauded.*]

My sister Dorothy, who is a registered nurse, and my brother, Dr. Donald Drolett, who practices obstetrics and gynecology at Lansing. [*Applause.*]

The Speaker: I am sure I can say without question that this has been a very delightful privilege on my part to introduce this gentleman, who epitomizes in the minds of the doctors in Ingham County one who is a doctor to the patients he serves. We hope that you will enjoy the time you spend with us, Fred, you and your family, and Godspeed.

XX—3. ON REPORTS OF SPECIAL COMMITTEES

D. W. Thorup, M.D. [Berrien]: Mr. Speaker, the Reference Committee has a partial report that it can present at this time.

XX—3(a). SCIENTIFIC RADIO COMMITTEE

The annual report of the Scientific Radio Committee for 1957-1958 was read and reviewed. The Reference Committee recommends that this Committee continue its program, and that an effort be made to obtain more co-operation from component county societies.

This Committee is to be congratulated for the work it has done. They have presented a diversity of subjects in an attractive fashion, and it is the opinion of the Reference Committee that a valuable public relations function, as well as one of public education, is being ably carried on by this Committee. I move the adoption of this report.

K. W. Toothaker, M.D. [Ingham]: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—3(b). ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

D. W. Thorup, M.D.: The Advisory Committee to the Woman's Auxiliary for 1957-58 presents a brief report and states that several matters were discussed with the President of the Auxiliary, and advice was offered. The Auxiliary has made a genuine contribution to medical progress in Michigan, and its efforts deserve our support and help. It is urged that the Advisory Committee make every effort to assist them in any way possible. I move the adoption of this report.

F. W. Smith, M.D. [Clinton]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—3(c). ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS' SOCIETY

D. W. Thorup, M.D.: This Committee is to be complimented on their activity and the obvious rapport they have developed with the organization of medical assistants. This worthwhile activity is to be encouraged, and it is hoped that the Advisory Committee from this Society can continue to be of assistance to it. I move the adoption of this report.

H. W. Porter, M.D. [Jackson]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—3(d). COMMITTEE ON COMMITTEES

D. W. Thorup, M.D.: The report of this Committee was reviewed and its activities approved. It is advantageous to the Society to continue to streamline the committee activities as they propose, and the Reference Committee recommends that this Committee be allowed to continue its research and make interim reports of its progress as requested. I move the adoption of this report.

F. W. Smith, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: This is an interim report and will be completed at a later time.

XX—4. REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

XX—4(a). PROPOSED AMENDMENT TO CONSTITUTION, ARTICLE VII AND BYLAWS, CHAPTER 8, SECTION 1 RE: SECTION REPRESENTATIVES IN MSMS HOUSE OF DELEGATES

A. B. Gwinn, M.D. [Barry]: We had two resolutions referred to us. The first one was introduced in the 1957 House of Delegates by Dr. Falls of Ann Arbor. We have changed it very slightly.

Last year, Section 1 read: "The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of delegates elected by the component medical societies, by the members of the authorized specialty sections, and delegates-at-large as prescribed by the By-laws."

We have changed this Section to read:

"The House of Delegates shall be composed of members elected by the component medical societies and one member from each of the authorized sections of the Michigan State Medical Society."

The Reference Committee approves the adoption of this amendment to the Constitution, and I so move.

R. W. Teed, M.D. [Washtenaw]: I second it.
(Extended discussion followed.)

H. F. Falls, M.D.: I would like to call for a hand vote.

The Speaker: Dr. Falls has called for a hand vote. Mr. Secretary, will you assist me in counting? All those in favor, please raise your right hand [38]. All those opposed, raise your right hand [69].

It is obvious that, since this required a two-thirds vote, the motion is lost, as the Speaker originally stated. [*Applause*]

XX—4(b). AMENDMENT TO BYLAWS, CHAPTER 16, SECTION 1 RE: DATE OF SUSPENSION FOR NON-PAYMENT OF DUES

A. B. Gwinn, M.D.: The second resolution was introduced by Dr. F. P. Rhoades, of Wayne. I will read the "Resolved" portion.

"Resolved: That Chapter XVI, Section 1 of the Michigan State Medical Society By-laws be amended by changing the date for suspension of members for non-payment of dues from April 1 to June 1."

The Reference Committee believes that the intent of this resolution is commendable, although after a lengthy discussion it was the opinion of the Reference Committee that the resolution was unnecessary and unwarranted, for the following reasons:

First, the Michigan State Medical Society is very lenient with its members and does not drop anyone from membership until June 1.

Second, the letters of suspension from the Michigan State Medical Society do not go out to the delinquent members until September 1; however, the dues must be paid by July 1 or the member is not on the MSMS roster.

Third, the Reference Committee feels that doctors are only human and that the longer they are given to pay their dues the longer it will take them.

Fourth, that some delinquency may be due to the failure of the county secretary to send the dues to the Michigan State Medical Society soon after they are paid. Therefore, it is the opinion of this Reference Committee that this resolution be disapproved.

I so move.

W. C. Beets, M.D. [Kent]: Second the motion.

[*The motion was put to a vote and was carried, with one "no" vote.*]

A. B. Gwinn, M.D.: I now move the acceptance of the report of the Reference Committee as a whole.

J. A. Ferguson, M.D. [Kent]: Second.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: Thank you, and the members of your Committee, Dr. Gwinn.

XX—5. ON RESOLUTIONS

XX—5(a). AMERICAN MEDICAL EDUCATION FOUNDATION

E. A. Osius, M.D. [Wayne]: I should like first of all to thank my Reference Committee for excellent support and a great deal of patience and good advice, and also the six Councilors and almost a seventh who attended the meeting. I have been on several reference committees, but never up until today have I had this distinct honor. May I add that the Councilors' advice was very helpful.

The first thing we had to consider was the report by Dr. F. P. Rhoades regarding the American Medical Education Foundation (part of Supplemental Annual Report of The Council).

Dr. Rhoades discovered that Michigan physicians gave the stupendous sum of $1.50 average per head during the past year to the American Medical Education Foundation. Obviously this is not a good record, and if we were to contribute our 4 per cent of the 10 million dollars which is needed we would have to raise some $300,000.

This could be done in two ways—either by having a voluntary contribution made, or by having the dues raised or an assessment levied.

The Reference Committee felt that the voluntary process would be the nicer, and hence in the report of Dr. Rhoades we have invited attention to the figure of $1.50 per head. We feel that the idea he suggested might be a very good one, namely, to print on the bottom of the dues statement, or immediately after the dues figure on the statement that is sent out by the State Society, the following notation: "Voluntary contribution to the American Medical Education Foundation, $10," hoping that this will encourage the various members, at the time they are making out their check, to add $10 to it.

This will save writing another check; it will also save a stamp. In these days of increased postage rates this is helpful, and the $10 will be put to very good use. Actually, we are giving it to ourselves in a certain sense, and perhaps we have been just a little niggardly in this State.

I move the adoption of this recommendation.

F. P. Rhoades, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—5(b). MEDICAL REPRESENTATION WHEN MANAGEMENT-LABOR NEGOTIATE MEDICAL SERVICES

E. A. Osius, M.D. [Wayne]: The next resolution we considered was that presented from Kent County, which I will read quickly in order to refresh your memory on the details.

"Whereas, Michigan Medical Service provides service contracts for prepaid medical care, and

"Whereas, the service furnished in carrying out said contracts is provided by the members of the Michigan State Medical Society, and

"Whereas, the services provided by the members of MSMS have therefore become an item of negotiation and/or bargaining between labor and management, and

"Whereas, those who furnish the services involved in said service contracts have not been represented at such negotiations; therefore, be it

"RESOLVED: That MSMS be represented when negotiations and bargaining for such medical services are involved."

The Reference Committee spent a good deal of time discussing this, and in the discussion, which was open, free and friendly, it developed from information furnished to the Reference Committee that the intent of this resolution was to secure more detailed information of the proposed Michigan Medical Service contracts before they were submitted for negotiation.

The Reference Committee believes that representation at the bargaining table would not accomplish this purpose, and therefore unanimously recommends its disapproval. I so move.

J. D. Miller, M.D. [Kent]: I second it. The purpose of this resolution has been accomplished at this point.

[*The motion was put to a vote and was carried unanimously.*]

XX—5(c). MSMS COUNCILOR DISTRICT REPRESENTATION ON MICHIGAN MEDICAL SERVICE BOARD OF DIRECTORS

E. A. Osius, M.D.: Resolution No. 11:

"Whereas, there is need for closer liaison between members of the Michigan State Medical Society and Michigan Medical Service, and

"Whereas, more direct representation would bring about closer co-operation with the doctors of medicine, therefore be it

"RESOLVED: That the Board of Directors of Michigan Medical Service contain an elected representative from each councilor district."

The Reference Committee approves the thought behind this resolution, and suggests, in view of Article X of the Articles of Incorporation of Michigan Medical Service, that the sponsor of the above resolution prepare and present a specific amendment to Michigan Medical Service at its annual meeting on September 30, 1958. I so move.

R. W. Teed, M.D. [Washtenaw]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—5(d). RULES OF CONDUCT FOR PHYSICIANS IN CLOSED PANEL PRACTICE

E. A. Osius, M.D.:

"Whereas, the United Mine Workers have a closed panel practice, and

"Whereas, other labor organizations have given their intention to develop new closed panel practice; therefore, be it

"RESOLVED: That the Michigan State Medical Society draw up rules of conduct for the individual doctor of medicine in his relationship to these health programs."

In answer to this resolution the Reference Committee recommends that no action be taken at this time on this resolution, in view of the fact that this same subject is still being discussed in the American Medical Association, with prospects of a report by their committee by December, 1958. (See pages 83, 84 and 85 in the Handbook.)

I move the adoption of this recommendation.

C. I. Owen, M.D. [Wayne]: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—5(e). EXPRESSION OF APPRECIATION TO RETIRING COUNCILOR J. F. BEER, M.D.

E. A. Osius, M.D.:

"Whereas, J. F. Beer, M.D., has served St. Clair County Medical Society as delegate for many years, and

"Whereas, during the past year he has served as Councilor for the Seventh District, and

"Whereas, it has been necessary for him to resign because of his health; be it therefore

"RESOLVED: That this House send a telegram of appreciation for his able work as a delegate and Councilor to this Society."

The Reference Committee recommends that this resolution be approved, and that appropriate steps be taken by the Secretary of the House of Delegates. I so move.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

E. A. Osius, M.D.: I now move the adoption of the report of the Reference Committee as a whole.

S. L. Loupee, M.D. [Cass]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: Thank you and your Committee, Dr. Osius.

[*The Vice Speaker resumed the Chair.*]

XX—6. ON SPECIAL MEMBERSHIPS

The Vice Speaker: Next is the report of the Reference Committee on Special Memberships.

E. H. Fenton, M.D. [Wayne]: The Reference Committee on Special Memberships has reviewed the applications and recommends that the following special memberships be granted. We have divided these into sections, as we have done in previous years, namely, Life, Associate and Retired.

Life Memberships

Alpena County.—Harry J. Burkholder, M.D.

Genesee County.—Arthur C. Blakeley, M.D., Leon M. Bogart, M.D., Guy D. Briggs, M.D., Edwin G. Dimond, M.D., Roy A. McGarry, M.D., Ira D. Odle, M.D., William W. Stevenson, M.D., George D. Sutton, M.D., Grant Thorburn, M.D., Inga W. Werness, M.D.

Jackson County—Corwin S. Clarke, M.D., W. B. Huntley, M.D.

Kent County.—Jacob D. Mulder, M.D.

Muskegon County.—Martha Goltz, M.D., Vilda S. Laurin, M.D.

Northern Michigan Counties.—James R. Stringham, M.D.

St. Clair County.—T. H. Cooper, M.D.

Shiawassee County.—Carleton A. Harkness, M.D.

Washtenaw County.—Margaret Bell, M.D.

Wayne County.—Mary B. Campbell, M.D., James A. J. Hall, M.D., Frederik E. Hansen, M.D., Arthur B. Henderson, M.D., Thomas G. Amos, M.D., Glenn B. Carpenter, M.D., Lona B. Carroll, M.D., Albert E. Catherwood, M.D., Thomas P. Clifford, M.D., Margarete W. Coleman, M.D., L. C. M. Conley, M.D., Harry F. Dibble, M.D., Raymond S. Goux, M.D., Leo E. Grajewski, M.D., Robert I. Greenidge, M.D., Daniel J. Leithauser, M.D., Leon E. Pangburn, M.D., Alvord R. Sanderson, M.D., Ward F. Seeley, M.D., F. Janney Smith, M.D., Viola M. Young, M.D.

Wexford County.—W. J. Smith, M.D.

I move that Life memberships be granted to these individuals.

C. L. Weston, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

E. H. Fenton, M.D.: The second part of this report deals with Retired memberships.

Retired Memberships

Bay County.—Walter S. Stinson, M.D.

Ingham County.—Robert S. Breakey, M.D.

Saginaw County.—E. G. Schaiberger, M.D.

Muskegon County.—A. W. Mulligan, M.D.

Wayne County.—Harvey S. Broderson, M.D., Schuyler O. Cotton, M.D., Hugo O. Dietzel, M.D., Arthur L. Higbee, M.D., Hartmann A. Lichtwardt, M.D., Walter E. McGillicuddy, M.D., John McKinnon, M.D., Julius Michels, M.D., Charles W. Peabody, M.D., Loren W. Shaffer, M.D., Alexander M. Stirling, M.D.

I move that these members be granted Retired membership.

C. I. Owen, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

E. H. Fenton, M.D.: The last category covers Associate memberships.

Associate Memberships

Muskegon County.—E. V. Williams, M.D.

Oakland County.—Dorothy M. Goerner, M.D., Edwin S. Peeke, M.D.

Saginaw County.—Raymond W. Dowidat, M.D., Robert D. Rector, M.D., James G. Kidd, M.D., Randall S. Derifield, M.D., Russell E. Pleune, M.D.

Wayne County.—Dorothy Caton, M.D., Daniel Donovan, M.D., L. E. Kamin, M.D., Harry Kirschbaum, M.D.,

Frances L. MacCracken, M.D., Louis J. Morand, M.D., Harold Ohrt, M.D., Eugene, Secord, M.D., Gerald Shortz, M.D., Mary Stellhorn, M.D., Carl G. Weltman, M.D., Leslie Wilcox, M.D., Abraham R. Lincoln, M.D., Vincent Mancuso, M.D.

I move that these people be granted Associate memberships.

F. W. Smith, M.D.: Second.

[*The motion was put to a vote and was carried unanimously.*]

E. H. Fenton, M.D.: I move the adoption of this report as a whole.

W. S. Reveno, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—7. ON HYGIENE AND PUBLIC HEALTH

XX—7(a). STUDY COMMITTEE ON ALCOHOLISM

O. K. Engelke, M.D. [Washtenaw]: The Reference Committee on Hygiene and Public Health had three resolutions referred to it for review. One was a resolution submitted by Dr. R. H. Pino of Wayne, regarding a study of alcoholism.

The Reference Committee is in sympathy with this problem and has clarified Dr. Pino's resolution, not attempting to change the sense of the resolution in any way, as follows:

"Whereas, alcohol consumption is an important factor in the incidence of disease and death in America; therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society establish a committee to study this problem, and that this committee's findings be reported by The Council to the next annual meeting of the House of Delegates."

I move the adoption of this resolution as reworded and clarified.

J. C. Danforth, M.D. [Wayne]: I second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—7(b). DISTRIBUTION OF FREE POLIO VACCINE TO MEDICALLY INDIGENT

O. K. Engelke, M.D.: Dr. Gittin's resolution regarding poliomyelitis vaccine has been revised somewhat by the Reference Committee.

It is the Reference Committee's idea that it says essentially the same thing as does the original resolution. If you wish, I will read the revised resolution, or the original and then the revision, whatever is the pleasure of the House.

The resolution as revised by the Reference Committee reads as follows:

"Whereas, the City of Detroit and County of Wayne are in the course of a serious outbreak of poliomyelitis, and

"Whereas, this high incidence and severity of the disease is indicative of the fact that portions of the population of the County of Wayne and possibly the State of Michigan are inadequately protected against this serious disease, and

"Whereas, the Michigan State Department of Health does at the present time and has for many years distributed various types of vaccine for the prevention of certain communicable diseases, and

"Whereas, no State-provided poliomyelitis vaccine is currently available for distribution to indigent people among whom the disease is showing its highest incidence; therefore, be it

"RESOLVED: That additional funds be made available by the Legislature and Governor to permit the Michigan Department of Health to acquire and distribute such polio vaccine to the medically indigent as soon as possible."

I move the adoption of this resolution.

F. W. Baske, M.D. [Genesee]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—7(c). RESPONSIBILITY FOR TREATMENT OF DIABETES MELLITUS

O. K. Engelke, M.D.: Your Reference Committee had resolution referred to it, regarding the activities of the Michagan State Medical Society in diabetes detection, education and control. After an extensive discussion, in which the introducer, Dr. Adler, and others who are extremely interested in this program presented their points of view, and after discussions subsequently with others in the Society who are interested in diabetes control, the Reference Committee is convinced that the sense of this resolution, which was to the effect that the Michigan State Medical Society work toward the assumption of leadership in this field, has been met through the appointment of the new committee as announced in the business of the Council, namely, the Committee on Diabetes Control.

The Reference Committee therefore believes that this resolution as presented is unnecessary, and it is therefore disapproved.

I move it be disapproved.

F. W. Smith, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

O. K. Engelke, M.D.: I move the acceptance of the report of the Reference Committee as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XX—8. ON LEGISLATION AND PUBLIC RELATIONS

XX—8(a). FUND RAISING—FEDERATED AND OTHERWISE

W. W. Babcock, M.D. [Wayne]: We shall consider two resolutions that deal basically with fund raising.

The Reference Committee on Legislation and Public Relations believed that it would be wise to combine these two resolutions and consider them in one resolution, inasmuch as they pertain to the same subject. With the Chair's permission I will omit the "Whereas" clauses and will read the two "Resolved" clauses.

The Beets Resolution:

"RESOLVED: That the House of Delegates rescind the 1957 resolution endorsing federated fund raising, and approve individual campaigns if the objectives of such an organization meet with the full approval of the local medical society.

The Hansen Resolution:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society approves in principle the right of all national voluntary (single disease) health organizations to utilize the type of fund raising program that best suits their individual purposes and program."

The previous action of the House of Delegates is in your Handbook, page 31, Section 8-A. and reads as follows: "Federated fund raising-approved in principle."

In its deliberations your Reference Committee felt about this problem much as follows:

1. That it is the privilege of any national agency to collect funds as they wish. We feel that this is in keeping with the American way of life.

2. No matter what we as a Society do about it,

decisions will continue to be made relative to the mode of collecting such funds on a local basis.

3. Our Reference Committee received no information that the situation had changed in such a way that it would require the reversal of the House of Delegates' formal action at its meeting in 1957.

4. The Reference Committee sees no reason to rescind the action of the 1957 House of Delegates in approving in principle federated fund raising.

Therefore, the Reference Committee recommends to the House of Delegates that no action be taken on resolutions Nos. 2 and 23.

I move the adoption of this portion of our report.

C. I. Owen, M.D.: Second the motion.

[*Extensive discussion followed.*]

W. C. Beets, M.D.: I move that the main motion and amendment be referred again to the Reference Committee.

J. M. Wellman, M.D.: Second the motion.

The Vice Speaker: It is moved and seconded that this portion of the report of the Reference Committee, including the amendment, be referred back to that Committee. Is there further discussion?

[*The motion was put to a vote and was carried unanimously.*]

XX—8(b). RULES FOR CONTROL OF MEDICAL STAFF IN PUBLIC HOSPITALS

W. W. Babcock, M.D.: We shall now take up the resolution introduced by Dr. Furlong of Oakland County.

Mr. Speaker, your Reference Committee Chairman believes that this resolution should be read in its entirety, as the Reference Committee has suggested changes.

"Whereas, the right of the Pontiac General Hospital to have rules and regulations for the control of professional medical practice within the Hospital has been challenged by litigation in the Circuit Court of Oakland County, and

"Whereas, it is the standard practice of approved hospitals throughout the United States and Canada to have such rules and regulations for the control of professional practices within the hospital, and

"Whereas, it is one of the fundamental requirements of the Joint Commission on Accreditation of Hospitals that all hospitals so approved by the Commission shall have in effect constitutions, bylaws, and rules and regulations controlling the admission of members of the staff and professional practice within the hospital, and

"Whereas, the present laws controlling the Board of Registration in Medicine do not cover this matter, and

"Whereas, the litigation in the Circuit Court of Oakland County cites the issuance of the license to practice medicine, and that it is taken to mean that the hospital has no right to restrict the practice of any doctor within the hospital, and

"Whereas, in 1957 the Oakland County Medical Society by resolution asked the House of Delegates to take action to initiate the necessary legislation in Michigan to clearly establish the right of a public hospital to have rules and regulations for the control of the medical staff, and

"Whereas, even a favorable decision in the Circuit Court of Oakland County may result in an appeal to the Supreme Court of the State of Michigan, and

"Whereas, The Council of the Michigan State Medical Society could prepare legislative recommendations for action at the next session of the Legislature; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society requests The Council of the Michigan State Medical Society to seek with other interested parties, namely, the Michigan Hospital Association, legislation to clearly establish the right of a public hospital in Michigan to have rules and regulations for the control of the medical staff."

The Reference Committee considers that in no way did they alter the intent of this resolution. They made some changes in grammar which they thought were for the better.

Mr. Speaker, I move the adoption of this portion of our report.

J. D. Miller, M.D. [Kent]: I second the motion.

S. L. Loupee, M.D. [Cass]: I move that the report be amended by substituting the word "guidance" for "control."

J. D. Miller, M.D.: I second that.

J. D. Miller, M.D.: May I call for the question on the amendment?

[*The amendment was put to a vote and was lost.*]

J. D. Miller, M.D.: Now I move that this matter be referred back to the Reference Committee, for consultation with legal counsel and restatement of the matter in such a way that it will be legally sound and will serve the good purpose of helping our medical compatriots in Pontiac to conduct a practical and ethical practice.

S. L. Loupee, M.D.: I support that motion.

[*Dr. Loupee subsequently withdrew his second, and the motion was seconded by R. A. Rasmussen, M.D.*]

The Vice Speaker: We are now voting to refer this back to the Reference Committee for legal opinion and advice.

[*The motion was put to a vote and was lost.*]

The Vice Speaker: You are now voting on the motion to approve the report of the Reference Committee as read by Dr. Babcock. . . . The question has been called for. We shall vote on this portion of the Reference Committee's report as recommended by the Chairman.

[*The motion was put to a vote and was carried unanimously.*]

XX—8(c). PROPOSED LAW TO REGULATE OPERATION OF AMBULANCES

W. W. Babcock, M.D.: A resolution concerning Regulation of personnel, equipment and speed of ambulances was introduced by Dr. H. W. Harris of Ingham.

Your Reference Committee has again altered this resolution. We have substituted an entirely different resolution. The reason the resolution was altered was because the Reference Committee felt that it was not within the purvue of the House of Delegates to introduce specific legislation. We felt this to be the responsibility of the Legislative Committee working in co-operation with the Legislature of the State of Michigan.

As a consequence, the entire "Resolved," sections 1, 2, 3, 4, 5 and 6 have been completely deleted. There were minor grammatical changes in the "Whereases" which you will notice as I read the new resolution with the suggested changes.

"Whereas, transportation of the sick and injured is of vital concern to all citizens of the State of Michigan, and

"Whereas, it is of particular concern to all physicians, and

"Whereas, there is presently no law in this State to require properly trained personnel or equipment, or to regulate the speed of ambulances; therefore, be it

"RESOLVED: That The Council of the Michigan State Medical Society be requested to use its influence through its Legislative Committee to have legislation introduced into the coming session of the Legislature of the State of Michigan to control the operation of vehicles engaged in the business of transporting sick or injured persons, to provide qualifications for drivers and attendants, to require the provision of equipment for first aid, splinting and bandaging, and to require periodic inspection of equipment and personnel, and to provide penalties for violations."

I move the adoption of this portion of the Reference Committee's report.

R. W. Teed, M.D.: Second the motion.

H. W. Harris, M.D.: I wish to thank the Reference Committee for at least preserving the gist of this resolution. It properly covers what we had in mind. However, I was unable to attend the meeting of this Reference Committee, and there are some facts which probably should be brought out.

In the first place, this proposed legislation was not written on the spur of the moment. This was written by the Trauma Committee of the College of Surgeons of the State. I presented it not as my resolution but as theirs. It was written after having been carefully checked legally. It was checked also by the Chairman of the Legislative Committee as to whether he would be willing to introduce such a resolution or such legislation.

So, after all that work, I would like in some way to get the wording of this proposed legislation into the hands of the Legislative Committee with the endorsement of this House of Delegates.

This matter was brought up at our June meeting in Hidden Valley, and there was considerable discussion as to the reasons for its adoption and for our getting behind it. I do not think I need to go into that. Everybody knows it is important that injured people particularly, in highway accidents, and so on, be treated with some respect and with care. I think most of us know, certainly those who treat these patients, that that is not presently true.

The problem of how best to handle this has come up. I am aware that Flint and Pontiac and maybe another county or two have city ordinances that cover this pretty well. We have discussed it and attempted perhaps feebly to get such an ordinance in Lansing. Even though we did get such an ordinance, it would not really rectify the situation, because we would have no control over outgoing ambulance drivers, and therefore it would be still a local proposition.

It is the opinion of the trauma group that the only way to really do this is by states. As you may know, several states have such legislation, and we think we are long past due for some legislation here. It may be that this should be passed on to The Council. I have no objection to that. I was not aware that the Legislative Committee was any more subservient to The Council than is the House. If true, that's all right.

The main reason for my standing up is to get the wording of this resolution, which has been worked on all summer, into the hands of the Legislative Committee.

F. L. Troost, M.D.: This was prepared by the Trauma Committee, as Dr. Harris said. It reads as though it would take care of trauma only. I have more patients who require oxygen than I have patients who require Thomas splints. If it is not anticipated that that be part of the equipment, then I certainly think it should be.

The Vice Speaker: Are you ready to vote?

[*The motion was put to a vote and was carried, with one "no" vote.*]

XX—8(d). SPONSORSHIP OF ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS ESSAY CONTEST

W. W. Babcock, M.D.: Your Reference Committee discussed this resolution at considerable length. You have the resolution before you, so I shall not bore you with its re-reading.

The Committee on Legislation and Public Relations was favorably inclined to the basic principles embodied in the substance of this resolution. However, we learned that public school authorities do not approve of controversial contests of this type. We felt that the basic principle was good, and the Reference Committee was unanimously in sympathy with the viewpoint of the author of this resolution. We also felt that active participation by the Michigan State Medical Society might be harmful both to MSMS and the basic principles stated.

We therefore considerably amended the resolution. The first four "Whereases" were left intact. The final "Whereas" was completely deleted, and the approved "Resolved." The resolution finally reads:

"Whereas, the medical profession is a group of strong individuals, proud of their heritage, their independence and their professional attainments in providing the American people with the highest standards of medical care in the world, and

"Whereas, these high standards were accomplished under a system of private practice in which each individual physician served his patients faithfully, applying his medical knowledge and skills to the best of his ability in order to survive in medical competition, and

"Whereas, the Essay Contest for High School Students, through twelve consecutive years of sponsorship, has demonstrated its value as an educational program for informing high school students on the advantages of the system of private practice of medicine and the system of American free enterprise, and

"Whereas, the task of informing students must be sustained from year to year because each year new groups of students are brought into the high schools, therefore be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society voice no objection to such a contest by the Association of American Physicians and Surgeons."

I move the adoption of this portion of the report.

R. W. Teed, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

W. W. Babcock, M.D.: The Chairman of this Reference Committee would be remiss if he did not express his sincere appreciation for the help of all the members of the Reference Committee, also Mr. Hugh Brenneman and the Councilors present at our meeting, along with other visitors. The Reference Committee was in 100 per cent attendance, and all stayed until our work was completed.

Thank you and your Committee, Dr. Babcock.

XX—9. ON MISCELLANEOUS BUSINESS

XX—9(a). MICHIGAN MEDICAL SERVICE REPORT

F. W. Smith, M.D. [Clinton]: The Reference Committee on Miscellaneous Business had three matters to consider. First was the report of Michigan Medical Service as shown on page 96 of the Handbook.

This report was read and reviewed by the Reference Committee, and we found no fault with it.

We move that the report be accepted as printed.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XX—9(b). ALPHABETICAL LISTING OF MEMBERS

F. W. Smith, M.D.: The second matter was a resolution re alphabetical list of members:

"Whereas, the Directory of Members as published by the Journal of the Michigan State Medical Society is of great value, and

"Whereas, the use of this publication would be greatly facilitated by inclusion of an alphabetical listing of names with identifying county society; therefore, be it

"RESOLVED: That the Publication Committee of the Journal of the Michigan State Medical Society include such a list in that Directory."

The Reference Committee considered this resolution and wishes to amend the "Resolved" portion to read:

"RESOLVED: That such a list be maintained in the Executive Office of the Michigan State Medical Society."

I move the adoption of this resolution as amended.

R. F. Fenton, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—9(c). NO HOUSE OF DELEGATES MEETING ON SUNDAY, UNLESS NECESSARY

F. W. Smith, M.D.: This resolution is brief also, and I shall read it.

"Whereas, Sunday should be a day of rest and is much treasured by the average doctor of medicine and especially by his family, and

"Whereas, the religious conviction of many members of the Michigan State Medical Society and its delegates are opposed to conducting unnecessary business on Sunday; therefore, be it

"RESOLVED: That the House of Delegates not meet on Sundays."

The Reference Committee considered this resolution and wishes to change the "Resolved" to read:

"RESOLVED: That the House of Delegates do not meet on Sundays unless deemed necessary."

I move the adoption of this resolution as amended.

[*The motion was severally seconded.*]

[*The motion to adopt the resolution as amended was put to a vote and was carried unanimously.*]

F. W. Smith, M.D.: I move the adoption of the entire report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*The Speaker resumed the Chair and the meeting was recessed at 11:10 p.m.*]

TUESDAY MORNING SESSION

September 30, 1958

The meeting reconvened at 9:15 a.m., J. J. Lightbody, M.D., Vice Speaker of the House of Delegates, presiding.

XX—10. ON REPORTS OF THE COUNCIL

XX—10(a). ANNUAL REPORTS OF THE COUNCIL

The Reference Committee on Reports of The Council has carefully studied the published annual report on page 51 of the Handbook and the supplemental annual report of The Council.

The Reference Committee is impressed with the tremendous service that The Council and its committees have rendered to the Michigan State Medical Society. The scientific programs carried out during the year are to be commended. We note with approval the contribution of the specialty groups in offering programs to the county societies.

On page 53, the financial report was reviewed and approved. It is recommended for study by all members of the Society.

On page 54, the Journal is complimented for its continued high quality of scientific articles and format. It received special recognition at the World Medical Editors' Society meeting this year.

On page 57, note is taken of the suggested Constitution and Bylaws for Component County Societies, drafted by a committee of The Council. All county societies are urged to utilize this information.

On page 59, the Reference Committee approves the action of the Public Relations Committee, and specially notes the organization of the Michigan Association of Professions.

On page 60, the Reference Committee approves a continuing program to assure and create public confidence in prepayment principles.

On page 61, the Reference Committee heartily commends the Woman's Auxiliary for its fine contributions to the many programs of the Michigan State Medical Society. Recognition of this service has also been taken by other committees.

On page 62, the Reference Committee approves The Council's actions in contacts with governmental and voluntary agencies. Your Reference Committee commends the Genesee County Medical Society for its participation in the National Science Fair, held in Flint in May, 1958, and recommends participation locally to other county societies.

On pages 65 through 74, the service of the twenty-five committees of the Michigan State Medical Society and The Council is recognized. Special note is taken of the work of the Committee on Courses on Medical Economics and Ethics, given at the University of Michigan. It is hoped that Wayne State University may soon see fit to include this desirable program.

Page 70: Since no matters were referred to the Liaison Committee with Michigan Medical Service during this important year, it would seem that this Committee is unnecessary, and further action on this matter is left to The Council.

Page 75: The Reference Committee feels that a great deal has been accomplished by Legal Counsel Lester P. Dodd in his many opinions to The Council and its committees.

The Reference Committee now moves the adoption of its report to this point.

E. C. Texter, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—10(a). NEW MSMS HEADQUARTERS BUILDING

J. B. Blodgett, M.D. [Wayne]: The Reference Committee studied at length the matter of the new headquarters building, and had the advice of the Chairman of the Committee on the Big Look, Dr. William S. Jones, and also of the architect, Mr. M. Yamasaki, clarifying many of the questions which were not covered in the presentation made Sunday night. We are assured by Dr. Jones that water, sewer and public utilities are available from East Lansing.

We recommend that the House of Delegates approve the construction of the new building as presented in Dr. Jones' report. The Reference Committee also recommends that a five-year option be taken as soon as feasible on adjacent land.

I move the adoption of this portion of the report.

R. W. Teed, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: On page 76 begin matters referred to The Council by the 1957 House of Delegates.

XX—10(a). MATTERS REFERRED TO THE COUNCIL BY 1957 HOUSE OF DELEGATES

The Reference Committee approves the action of The Council in all matters referred to it by the 1957 House of Delegates. We especially note, under item C, referring to the adoption by The Council of the recommendations of the Medical Care Insurance Committee and the M-75 contract of the Michigan Medical Service, the authority for which was given to them by the House of Delegates at its meeting in 1957. This action is recorded in the digest of the Proceedings of the 92nd annual session, on page 136.

The Reference Committee does not mean to pass on this action, but wishes to point out that The Council had authority for this action clearly given to it by the House of Delegates in 1957.

In the supplemental annual report of The Council attention is drawn to the annual report of the Committee on Study of Insurance Programs for Michigan State Medical Society members with respect to the proposed plan of group life insurance. This has been separately mimeographed for your study.

The Reference Committee requests the privilege of having the Chairman of this Committee, Dr. M. A. Darling, present this plan to you for your consideration; but since it is not mimeographed at this time, we would like to defer this portion of the report.

The Reference Committee will then recommend approval and implementation of this program.

XX—10(a). MEDICARE

Reference in The Council's report to the revised Medicare contract is quoted verbatim:

"The revised Medicare contract, effective April 1, 1958, includes cutbacks in services that render this program less valuable and effective to the recipients. Criticisms from these folk—most of it leveled against the medical profession—will undoubtedly result. The Council, therefore, recommends that a resolution adopted by the South Dakota State Medical Association (see addenda) be supported by the American Medical Association delegates from Michigan, and further that one MSMS delegate from Michigan be authorized to attend an AMA-sponsored meeting on this subject to be held in Minneapolis on December 1, 1958."

Now I shall read the recommendation again, and the resolution from South Dakota.

"The Council therefore recommends that the resolution as adopted by the South Dakota Medical Association be supported by the AMA delegates from Michigan." This is a recommendation, then, to our AMA delegates to support the South Dakota resolution, which I will read. Perhaps I should add that one portion of the resolution recommends the giving up of the Medicare program, and I suggest you pay careful attention.

"The Council of the South Dakota State Medical Association, meeting in official session at Huron, South Dakota, Sunday, September 14, 1958, adopted the following resolution:

"Whereas, the Dependents Medical Care Act was inaugurated for the avowed purpose of improving troop morale by provision of so-called industrial type 'fringe benefits,' and

"Whereas, the original program, which was generally satisfactory to patient and doctor alike, has been altered by congressional and Office of Dependent Medical Care action to the point where the basic tenets of the plan have been abandoned, and

"Whereas, the physicians of this State have given their support and co-operation to the proposal which some deemed to be at variance with their ideals of private enterprise, only to have the program reduced to a confusing half-entity; now, therefore, be it

"RESOLVED: That the South Dakota State Medical Association assert its opposition to the new Medicare program and that the following recommendations be considered:

"1. Complete eradication of the Medicare program.

"2. Creation of a group insurance program for military dependents, allowing free choice of military or civilian facilities.

"3. Return to the original program with adequate appropriations for its maintenance.

"And be it further

"RESOLVED: That copies of this resolution be forwarded to the members of the South Dakota congressional delegation, the Board of Trustees of the American Medical Association, and the several state medical associations."

Your Reference Committee approves this section of the report and moves its adoption.

[*The motion was severally seconded.*]

W. W. Babcock, M.D.: It is my understanding that the State of Texas has already completely dropped the Medicare program. The Medicare program as presently changed by governmental action is very much emasculated in comparison to the original program, and I think it might be apropos (and I am very definitely in favor of Dr. Blodgett's recommendation) if this State Society formed a study committee to consider similar action to that taken by the State of Texas.

Not only can we work on a national basis, but we don't know what the result will be in December on a national basis relative to Medicare. If we so desire, we can act as a State. I think consideration should be given to the formation of a study committee of some sort from either The Council or the House to study this situation and bring recommendations to the House of Delegates.

The Vice Speaker: Is there any further discussion? The question is called for. Are you ready to vote?

[*The motion was put to a vote and was carried unanimously.*]

XX—10(a). GROUP LIFE INSURANCE PLAN

J. B. Blodgett, M.D.: Gentlemen, you have before you the proposed life insurance plan, and I would like to go back in the report, if I may, to this subject and read it again.

In the supplemental annual report of The Council, attention is drawn to the annual report of the Committee on a study of insurance programs for MSMS members with respect to the proposed plan of group life insurance. This has been separately mimeographed for your study, and you have it before you.

At this time the Committee requests the privilege of asking the Chairman of the Insurance Committee, Dr. M. A. Darling, to present this proposal and discuss it. The Committee will then recommend approval and implementation of this program. This Committee has studied this insurance plan and believes it is good, and will recommend it to you.

The Vice Speaker: Hearing no objection, the request is granted.

M. A. Darling, M.D. [Wayne]: This matter was referred to a committee of The Council that had to do with our other types of insurance. We are not insurance experts. This matter came to our attention last spring, and we proceeded to attempt to get what information we could in a reasonable length of time on this matter.

For your information, a survey was made and a large number—64 per cent—of the members of the Society polled indicated that they would like to have some form of group life insurance available to them.

There are various ways of approaching this question. One is straight term insurance, with which we are all familiar. The second is straight life insurance. The third is a combination of the two plans.

The Committee employed the services of an insurance expert, and the plan devised was one that resulted from the study of several plans available. This plan, we feel, makes an ideal solution for the average young man or any member of the Society at a reasonable cost.

The main features, as you will note, are that term insurance is made available at a nominal expense. It may be converted any time to any other type of insurance offered by the carrier. In addition, for the sum of $1 per $1,000, added insurance may be taken covering accidental death, doubling the amount.

A feature that impressed the Committee particularly was that under age thirty-five a sum in addition to the $10,000 maximum, which is limited by law, can be obtained from the carrier, the sum of $12,500, which makes a very attractive form of insurance. The Committee wholeheartedly recommends this type of insurance, as shown on the mimeographed pages that have been handed to you. We hope the Society will act favorably upon it.

If 25 per cent of the members adopt this policy it will go into effect, they assure us, within a matter of sixty days. After that time it is hoped that within a reasonable time it will approach something like 50 per cent, which the insurance authorities claim is about the average amount required.

It should be borne in mind that this type of insurance is available to the members of the Michigan State Medical Society. The plan is prepared for them at a much lower rate than it could otherwise be obtained, and without the necessary qualifications of insurability.

The company, the Mutual Benefit Life Insurance Company of New Jersey, was chosen upon recommendation of the consultant after several other plans and company proposals had been considered. I don't think there is any reason to stress the importance of this Company, because they have been in business for 113 years, during 100 of which they have transacted and sold insurance in the State of Michigan.

The Vice Speaker: Are there any questions that any of the delegates would like to ask Dr. Darling?

W. C. Beets, M.D.: I have a question. It says that they "may" pay these dividends to the members. Does that mean they might or that they positively will, or will they keep it?

M. A. Darling, M.D.: The Committee recommended that all monies received in excess could be returned to the individual policyholder, whatever dividend he is entitled to.

I might add further that the Committee did not attempt to pass upon the method of passing it on, because that is a mechanical procedure for the office and the Society to determine; but we did insist that the dividends be returned to the insureds.

W. C. Beets, M.D.: If over forty, he must be physically insurable?

M. A. Darling, M.D.: He should be reasonably insurable over age forty. He would not be held strictly to the ordinary procedures of old-line life insurance.

M. A. Haanes, M.D. [Oakland]: On the matter of being able to obtain additional insurance, the words "permanent life insurance coverage" are stated. Does this imply that this is to be straight life insurance, or would it be term insurance on the same basis as in the above?

M. A. Darling, M.D.: At the pleasure of the insured, at any time during the life of the contract the holder may request and receive transmission to any other type or form of insurance by the carrier, be it ordinary life, ten- or twenty- or thirty-pay life, endowment, retirement, or what not.

The Vice Speaker: Any further questions? Thank you very much, Dr. Darling.

J. B. Blodgett, M.D. [Wayne]: Your Reference Committee approves the recommendation of the Insurance Committee that this plan be adopted and implemented, and so moves.

Felix S. Alfenito, M.D. [Kent]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: We shall now continue with the supplemental report of The Council.

XX—10(a). HOSPITAL STAFF PAYMENTS

Your Reference Committee approves the action of the Liaison Study Committee on Hospital Staff Payments, codified in the following resolution, and I will read it in its entirety so that you will understand the problem.

"Whereas, attention of the Michigan State Medical Society has been invited to the problem of payment for medical and surgical services rendered by interns and residents, and

"Whereas, the medical profession has traditionally been opposed to payment of services so rendered, and

"Whereas, such payments can be construed as a definite threat to the private practice of medicine; therefore, be it

"RESOLVED: That the Michigan State Medical Society go on record as condemning as unethical practice the collection of or the attempt to collect fees for services rendered by interns and residents unless such services are rendered under direct supervision of and upon the responsibility of a staff member of a hospital having an American Medical Association approved training program, and which staff physician is also engaged in the active practice of medicine, and unless the fees so collected are devoted to furtherance of medical education and research; and be it further

"RESOLVED: That the Michigan State Medical Society implement this resolution through its own organization and that it use its best efforts to further implement this resolution through the House of Delegates of the American Medical Association, the Joint Commission on Accreditation of Hospitals, and the governing boards of hospitals in Michigan."

Your Reference Committee moves the adoption of this portion of the report.

J. A. Kasper, M.D. [Wayne]: I second the motion.

E. J. Tallant, M.D. [Wayne]: I would like to ask Dr. Blodgett, if he will, to define what he means by "active practice of medicine." There are many categories that could be covered by that phrase. I think I know Dr. Blodgett's intent.

J. B. Blodgett, M.D.: The Committee was taking action on this report which was submitted to it by the Liaison Committee, and we assumed the Liaison Committee meant "in practice."

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: The Council offers five recommendations to the House of Delegates, as follows:

1. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1959 on the occasion of the Annual Michigan Day, as recommended by last year's House of Delegates.

Your Reference Committee approves this recommendation, and so moves.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

J. B. Blodgett, M.D.: 2. That every member of the Michigan State Medical Society be urged to become affiliated with the Beaumont Memorial Foundation either as a Life Member ($100) or a Sustaining Member ($5 per annum).

Your Reference Committee points up that the members be urged to do so, and not that they must do it. This is a private matter.

We move the approval of this recommendation.

R. W. Teed, M.D. [Washtenaw]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: 3. That The Council be authorized to institute necessary research in the economic aspects of the practice of medicine as these factors pertain to administration of medical service and insurance programs.

The Reference Committee recommends that The Council take a thorough look at the budget before authorizing this research.

The Reference Committee approves this recommendation and so moves.

J. D. Miller, M.D. [Kent]: Second.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: 4. That The Council be authorized to arrange councilor conferences prior to the Annual Session, to continue communication with and impart information to the membership.

Your Reference Committee moves approval of this recommendation.

C. L. Weston, M.D. [Shiawassee]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: 5. That The Council, having approved the architect's final preliminary plans for the new MSMS building, respectfully recommends their adoption by the House of Delegates.

The Reference Committee moves approval of this recommendation.

C. W. Oakes, M.D. [Huron]: I second that.

[*The motion was put to a vote and was carried unanimously.*]

XX—10(b). FEE COMMITTEES SHALL WORK UNDER THE COUNCIL

J. B. Blodgett, M.D.: Your Reference Committee had two seperate resolutions referred to it. The first was a resolution introduced by Dr. Miller of Kent, and reads as follows:

"Whereas, many of the present misunderstandings in regard to fees are the result of multiple committees on fees whose authority is not clearly understood and is frequently overlapping; therefore, be it

"RESOLVED: That the Permanent Advisory Committee on Fees of this House of Delegates be instructed to work with The Council when this House is not in session, and that all other committees on fees of the Michigan State Medical Society work under its direction.

The Reference Committee considered this resolution and points out that since all other committees on fees are committees of The Council and report to The Council, we recommend a change in the wording of the "Resolved" and not in the intent of the resolution, as follows:

"RESOLVED: That the Permanent Advisory Committee on Fees of the House of Delegates be instructed to work with The Council when this House is not in session, and that all decisions of The Council regarding fees be reported to the Permanent Advisory Committee on Fees of the House of Delegates."

The Reference Committee moves the adoption of this resolution as amended.

R. W. Teed, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—10(c). PUBLICATION OF NAMES OF PHYSICIANS PARTCIPATING IN BLUE SHIELD

J. B. Blodgett, M.D.: The second resolution referred to this Reference Committee was that submitted by Dr. R. A. Rasmussen, of Kent, and it reads as follows:

"Whereas, it appears that a policy may be developing to publish the names of participating and nonparticipating physicians in Michigan Medical Service, and

"Whereas, such publication is discriminatory, damaging, restrictive and coercive to the profession and the individual physician, and

"Whereas, participation in any voluntary program is the prerogative of the individual; therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society instruct Michigan Medical Service or any other company or organization that such lists shall not be published or otherwise disseminated."

The Reference Committee approved this resolution, and slightly changed the wording in the "Resolved" to remove the word "instruct," rewording it to read:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society request the governing body of the Michigan Medical Service and of any other approved carrier that such lists shall not be published or otherwise disseminated."

The Reference Committee moves approval of this resolution as amended.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

J. B. Blodgett, M.D.: Your Reference Committee moves the adoption of this report in its entirety.

F. L. Troost, M.D. [Ingham]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

J. B. Blodgett, M.D.: The Chairman wishes to express his thanks to the members of the Reference Committee for their co-operation and help in the preparation of this report.

The Reference Committee wishes to thank Dr. W. B. Harm, the Councilor; Dr. William S. Jones, and Dr. Milton A. Darling for their very real assistance and information.

The Vice Speaker: Thank you and your committee for an excellent report, Dr. Blodgett.

XX—10(d). MOTION OF COMMENDATION TO THE COUNCIL

R. W. Teed, M.D. [Washtenaw]: Mr. Vice Speaker, I think it is obvious from this report and from other reports the House has received that The Council has carried on a tremendous amount of work in support of the policies that were laid down by the House of Delegates

last year, and in furtherance of the work of the Michigan State Medical Society.

Therefore, sir, I would like to move that this House express commendation for the excellent work done by The Council in the past year.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

THE VICE SPEAKER: Dr. Wiley is here, and I think he should take a bow for The Council. [*Applause*]

XX—3(e). PERMANENT ADVISORY COMMITTEE ON FEES

D. W. THORUP, M.D. [Berrien]: I have a supplemental report of the Reference Committee on Reports of Special Committees. This concerns the report of the Permanent Advisory Committee on Fees.

This Committee met on two occasions during the past year to clarify its function and perform such duties as were presented to it. This Committee has co-operated with the Medical Care Insurance Committee, and a member has been invited to attend the meetings of the Medical Care Insurance Committee.

It is the opinion of the Reference Committee that the Advisory Committee on Fees is performing its duties.

I move the adoption of their report.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

D. W. THORUP, M.D.: I now move adoption of the report of this Reference Committee as a whole.

C. W. OAKES, M.D. [Huron]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

THE VICE SPEAKER: Thank you and your Committee, Dr. Thorup.

XX—11. ON RULES AND ORDER OF BUSINESS

XX—11(a). ONE FULL DAY FOR REFERENCE COMMITTEE MEETINGS

A. C. STANDER, M.D. [Saginaw]: The Reference Committee on Rules and Order of Business was given the following resolution:

"Whereas, the proceedings of the reference committees are of extreme interest to all members, and

"Whereas, members may wish to attend all meetings of the reference committees; be it therefore

"RESOLVED: That hereafter one whole day of the session be specifically designated for reference committee activities; and be it further

"RESOLVED: That no other activity of the House of Delegates be conducted on this designated day."

The Reference Committee has discussed this resolution and recommends its disapproval on the basis that it is impractical and would undoubtedly require an additional day of meeting.

I move that the action of the Reference Committee be approved.

F. L. TROOST, M.D. [Ingham]: Second the motion.

[*The motion was put to a vote and was carried, with one "no" vote.*]

A. C. STANDER, M.D.: I would like to thank the members of our Committee for their great deliberations of this momentous resolution, and I move acceptance of our report as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

THE VICE SPEAKER: Thank you and your Committee, Dr. Stander.

[*The Speaker resumed the Chair.*]

XX—3(e). QUESTION RE TERMS OF MEMBERS OF PERMANENT ADVISORY COMMITTEE ON FEES

THE SPEAKER: May I add my personal thanks to those of this House for its vote of appreciation of the work done by The Council. I think the amount of time and energy that is spent by these men is tremendous, and it is all done in the best interests of the profession of medicine in this State.

I would very much appreciate it if someone in this House would take the responsibility of introducing a resolution concerning the membership of the Permanent Advisory Committee on Fees. If you will recall, when that Committee was created originally there was no method of its determination made, either as to its number or its permanency.

I realize you intended that it be permanent, but I don't know whether you also intended that its members be permanent. It has seemed to your Speaker that it might be proper that its membership be made rotating in some fashion—for instance, that two new members be appointed each year, or something like that, so that the Committee will retain men on it who know what is going on, but that there be some process whereby it can be rejuvenated.

For that reason in particular your Speaker did not this year appoint a member to take the place of Dr. Joe Beer, who resigned. I would greatly appreciate it if someone would take the responsibility of introducing a resolution as to how this should be managed to your satisfaction.

XX—8(a). FUND RAISING—FEDERATED AND OTHERWISE

Supplemental report of the Reference Committee on Legislation and Public Relations.

W. W. BABCOCK, M.D.: We were at an impasse as to how to solve this problem and deal with the amendment, until one of the visitors at the Reference Committee meeting, Dr. Victor Zerbi, of Washtenaw (and I must give him credit), came up with an idea that appealed to all of us.

Referred back to the Reference Committee was an amendment concerning resolutions on fund raising, which was as follows: "That this House of Delegates go on record as favoring meritorious fund-raising campaigns for the welfare of the people, without any specific endorsement of any particular plan."

This amendment was discussed at length by members of the Reference Committee and interested guests, including Dr. Hansen of Calhoun County, the sponsor of the amendment.

Rather than rescind the previous action of the House of Delegates in 1957 and thereby run into parliamentary complications, your Reference Committee, with the full approval of all interested parties present, recommended that the amendment not be accepted, and instead that the resolution introduced by Dr. Hansen of Calhoun County, be substituted. The "Whereases" in this resolution were left intact in their original form, as follows:

"Whereas, necessary financial funds are obtained by national (single disease) health organizations in one of two ways: (1) by independent campaigns, or (2) by federated fund raising, and

"Whereas, both of these systems have proven successful in achieving the similar purpose of gaining public financial support to the end that the important work of these health agencies is accomplished, and

"Whereas, the decision on what type of fund raising program to use must remain the sole prerogative of the individual national health agency; therefore, be it

The "Resolved" originally read: "Resolved: That the House of Delegates of the Michigan State Medical Society approve in principle the right of all voluntary

(single disease) health organizations to utilize the type of fund-raising program that best suits their individual purposes and program."

This original "Resolved" has been altered by your Reference Committee to read as follows:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society, in approving the principle of federated fund raising at its 1957 session, in no way intended to express disapproval of other methods of fund raising for meritorious causes."

I move the adoption of this portion of the report.

W. C. Beets, M.D.: I second it.

[*The motion was put to a vote and was carried unanimously.*]

W. W. Babcock, M.D.: I now move adoption of our report as a whole.

F. W. Smith, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

W. W. Babcock, M.D.: Your Reference Committee Chairman would be remiss if he did not give credit to all the members of his hard-working committee.

The Speaker: Thank you and your Committee, Dr. Babcock.

XV—28. APPRECIATION TO MICHIGAN OFFICE OF CIVIL DEFENSE DIRECTOR RALPH M. SHEEHAN AND STAFF

E. H. Fenton, M.D. [Wayne]:

"Whereas, the Michigan State Medical Society Committee on National Defense, in its efforts to improve the quality of medical preparedness against both civil and military disaster, has received the most complete and wholehearted co-operation from Mr. Ralph M. Sheehan, Director, Michigan Office of Civil Defense, and

"Whereas, this very cordial relationship has resulted in a substantial improvement in our state of medical preparedness; therefore, be it

"RESOLVED: That the Michigan State Medical Society extend to Mr. Ralph M. Sheehan and his staff its most sincere appreciation for their accomplishments on behalf of the people of Michigan."

The Speaker: This will be referred to the Reference Committee on National Defense and Disaster Planning.

XV—29. BYLAWS, CHAPTER 5, SECTIONS 4 AND 6 RE SPECIAL MEMBERSHIPS

E. H. Fenton, M.D.:

"Whereas, reference committees on special memberships in the past have apparently varied somewhat from the printed Bylaws in cases where unusual conditions exist, and

"Whereas, it appears to be reasonable and just to allow some departure from the Bylaws in unusual circumstances, and

"Whereas, there now exists no mechanism whereby this can be done; therefore, be it

"RESOLVED: That Chapter 5, Sections 4 and 6 of the Bylaws be changed to allow minor variations at the discretion of the House of Delegates on recommendations of the Reference Committee on Special Memberships."

The Speaker: This resolution will be referred to the Reference Committee on Constitution and Bylaws, and of course will have to lie over for one year.

XV—30. BYLAWS, CHAPTER 5, SECTION 6 RE CLARIFICATION OF LIFE MEMBERSHIP QUALIFICATIONS

E. H. Fenton, M.D.:

"Whereas, your Reference Committee on Special Memberships considers Section 6 under Chapter 5 of the Bylaws of the Michigan State Medical Society, relating to Life Members, as not being clear in its meaning; therefore, be it

"RESOLVED: That the wording, 'A doctor of medicine who has attained the age of seventy years or has been in practice fifty years and has maintained an active membership in good standing for twenty-five years in any constituent state society with dues paid for the previous calendar year may, upon his application and recommendation of his component county society, be transferred to the Life Members' Roster,' be changed to indicate what, if any, membership in the Michigan State Medical Society is required."

The Speaker: This also will be referred to the Reference Committee on Constitution and Bylaws.

XV—31. BYLAWS, CHAPTER 12, SECTION 1 RE TERM OF COUNCILORS

"Whereas, in the discussion both on the floor of this House and in the corridors it becomes apparent that, instead of identification of the members of the House and members of the Society with The Council and the Board of Directors of Blue Shield, there is instead a feeling that a barrier in effect exists between The Council and Board of Directors of Blue Shield, and

"Whereas, it is in the province of members of this House of Delegates to amend its Bylaws, and

"Whereas, the influence and identification of the delegates and members-at-large with The Council may be facilitated by this action; be it therefore

"RESOLVED: That Chapter 12, Section 1 of the Bylaws be changed by striking the term 'five years' and substituting the term 'three years, and no more than two successive terms at one time.' "

The Speaker: This will be referred to the Reference Committee on Constitution and Bylaws.

XV—32. GREATER INTEREST IN DIABETES DETECTION

F. W. Baske, M.D. [Genesee]: I have a resolution to present at this time. I understand that the Society will have a Diabetes Committee appointed for the coming year, and I think this resolution is appropriate.

"Whereas, early detection and treatment of diabetes tends to prevent the serious consequences of this disease, and

"Whereas, this early detection and treatment is best handled by the private physician, and

"Whereas, any program aimed at this early detection should be led and co-ordinated by the medical profession through its county organizations; therefore, be it

"RESOLVED: That the Michigan State Medical Society, through its Committee on Diabetes, make every possible effort to interest the component county medical socities in programs of detection; and be it further

"RESOLVED: That this program be integrated with the programs of the Michigan Diabetes Association and when, in the interest of the patient, the Michigan Department of Health and local health department."

The Speaker: I will refer this resolution to the Reference Committee on Miscellaneous Business.

XV—33. REAFFIRMING STATEMENT OF PRINCIPLES OF 1957 HOUSE OF DELEGATES

G. C. Wilson, M.D. [Lenawee]:

"Whereas, the Michigan State Medical Society is an organization of doctors of medicine of this State of Michigan, and

"Whereas, the purposes of that organization are listed in Article III of the Constitution of the Michigan State Medical Society, and

"Whereas, the House of Delegates is intended to represent the members of the Michigan State Medical Society and act as the legislative body of that Society, and

"Whereas, the Michigan Medical Service was conceived, organized and is now operating, and

"Whereas, the 1957 House of Delegates acted to extend Michigan Medical Service and empowered Michigan Medical Service to create new contracts, and

"Whereas, such contracts have been created and have been sold to citizens of the State of Michigan, and

"Whereas, the integrity of the entire Michigan State Medical Society is at stake; therefore, be it

"RESOLVED: That the agreements on principle made by the 1957 House of Delegates be reaffirmed, and that any changes in action taken upon those agreements on principle be made within the framework of representative government as established."

The Speaker: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XV—34. COMPOSITION OF PERMANENT ADVISORY COMMITTEE ON FEES (THORUP)

D. W. Thorup, M.D. [Berrien]: This is a resolution having to do with the matter just mentioned by the Speaker.

"Whereas, the original motion creating the Permanent Advisory Committee on Fees made no provision for the composition of this Committee, and

"Whereas, such a provision would be of assistance to the Speaker of the House in making appointments to this Committee; therefore, be it

"RESOLVED: That this Committee consist of seven members; and be it further

"RESOLVED: That the personnel of this Committee may be changed from time to time as the Speaker may see fit, provided that no more than three members be changed in any one year."

The Speaker: This will be referred to the Reference Committee on Reports of Special Committees.

XV-35. COMPOSITION OF PERMANENT ADVISORY COMMITTEE ON FEES (FALLS)

H. F. Falls, M.D. [Washtenaw]:

"Whereas, composition and length of term of service of the membership of the Permanent Advisory Committee on Fees previously has not been designated; therefore, be it

"RESOLVED: That such Committee be appointed at the authority and discretion of the Speaker of the House of Delegates of the Michigan State Medcial Society, and that the membership consist of nine appointees, three members to be appointed each year on a rotation basis, for a term of three years; and be it further

"RESOLVED: That at least one member of this Committee be appointed from the roll of the Board of Directors of the Michigan Medical Service."

The Speaker: This resolution will be referred to the Committee on Reports of Special Committees.

Your Speaker would like the privilege of presenting to you Dr. Lorne Whitaker, President of the Ontario Medical Association. [*Applause*]. And Jack DeTar, Former Speaker of This House. [*Applause*].

[*The meeting recessed at 11 a.m.*]

TUESDAY EVENING SESSION

September 30, 1958

The final session convened at 8:30 p.m., K. H. Johnson, M.D., Speaker of the House of Delegates, presiding.

MICHIGAN MEDICAL SERVICE— ELECTION TO BOARD OF DIRECTORS

W. L. Brosius, M.D. [Wayne]: As chairman of the tellers for the Blue Shield-Michigan Medical Service election this afternoon, I wish to announce the results of elections to the Board. These are the highest.

For three-year terms
Max L. Lichter, M.D.
E. H. Fenton, M.D.
G. Thomas McKean, M.D.
George W. Slagle, M.D.
Carleton Fox, D.D.S.
Gilbert B. Saltonstall, M.D.
John M. Wellman, M.D.
B. M. Harris, M.D.
Waldo I. Stoddard

For two-year terms
Robert Frye
William S. Carpenter, M.D.
W. H. Huron, M.D.

Michigan Hospital Representatives
Ronald Yaw
Franklin Carr

I wish to thank the tellers who assisted in this count.

The Speaker: Thank you, Dr. Brosius.

XX—3(f). COMPOSITION OF PERMANENT ADVISORY COMMITTEE ON FEES (THORUP AND FALLS)

D. W. Thorup, M.D.: Mr. Speaker, this Reference Committee was given two resolutions this morning. We met at the close of the morning session with the proposers of both resolutions. The resolutions were similar in intent, although they were worded somewhat differently, and they were combined into one resolution with the consent of both proposers.

I will read the new resolution.

"Whereas, the composition and length of term of service of the membership of the Permanent Advisory Committee on Fees has not been designated, and

"Whereas, such designation would be of assistance to the Speaker of the House in making appointments to this Committee; therefore, be it

"RESOLVED: That this Committee consist of nine members whose terms of appointment shall be for three years each, except in the instance of the first appointments, when three members shall be appointed for one year, three members for two years, and three members for three years. Henceforth three members shall be appointed each year for three-year terms; and be it further

"RESOLVED: That the Speaker be instructed and heartily urged to choose representation from the various fields of medical practice insofar as possible."

Mr. Speaker, I move the adoption of this portion of the report.

There was a paragraph in one of the resolutions asking that the Speaker be obliged to appoint at least one member who was also to be a member of the Board of Directors of Michigan Medical Service. The Reference Committee discussed this at some length and decided it was not necessary to hamstring the Speaker in that

respect, and the Reference Committee therefore omitted that paragraph with the consent of the proposer of the resolution.

S. L. Loupee, M.D.: I second that motion.
[*The motion was put to a vote and was carried unanimously.*]

D. W. Thorup, M.D.: Our Reference Committee chose to make a further recommendation in this connection, and we make this recommendation as a part of the report of this Reference Committee.

This Committee further recommends, in order that the functioning of the Permanent Advisory Committee on Fees may be facilitated and given added incentive and authority, that all minutes of the proceedings of all committees dealing with fees and fee schedules be referred to and made available to the Permanent Advisory Committee on Fees as promptly as possible.

Mr. Speaker, I move the adoption of this portion of the report.

R. T. Costello, M.D. [Wayne]: Second the motion.
[*The motion was put to a vote and was carried unanimously.*]

D. W. Thorup, M.D. [Berrien]: I want again to thank the members of this Reference Committee. I move the adoption of the report of this Reference Committee as a whole.

F. W. Baske, M.D. [Genesee]: I second the motion.
[*The motion was put to a vote and was carried unanimously.*]

The Speaker: Thank you and your Committee, Dr. Thorup.

I might tell you at this time that three of the medical students who were here as guests of the House of Delegates came up to the platform previous to this session to tell me of their very great appreciation for the invitation given them to attend these sessions. They indicated that they thought the idea was excellent, that they would go back to their respective classes in medical school and give a report, and wished to be invited again as students.

I thought it was a very nice thing for them to do.

XX—4(c). BY-LAWS, CHAPTER 5, SECTIONS 4 AND 6 RE SPECIAL MEMBERSHIPS

A. B. Gwinn, M.D. [Barry]:

The resolution re Chapter V, Sections 4 and 6 is the one being considered and reads as follows:

"Whereas, reference committees on special memberships in the past have apparently varied somewhat from the printed By-laws in cases where unusual conditions exist, and

"Whereas, it appears to be reasonable and just to allow some departure from the By-laws in unusual circumstances, and

"Whereas, there now exists no mechanism whereby this can be done; therefore, be it

"RESOLVED: That Chapter V, Sections 4 and 6 of the By-laws be changed to allow minor variations at the discretion of the House of Delegates on recommendations of the Reference Committee on Special Memberships."

The Reference Committee had Dr. Fenton in on the discussion, and we also had Dr. C. Allen Payne as Councilor. After consideration of the resolution and considerable discussion, the Reference Committee feels that inasmuch as the Bylaws are very specific and the term "minor variations" is not defined, it is the opinion of this Reference Committee that this resolution be disapproved. I so move.

L. F. Hayes, M.D. [North Central]: Second the motion.
[*The motion was put to a vote and was carried unanimously.*]

XX—4(d). BYLAWS, CHAPTER 5, SECTION 6 RE CLARIFICATION OF LIFE MEMBERSHIP QUALIFICATIONS

A. B. Gwinn, M.D.: This resolution was also introduced by Dr. Fenton and concerns clarification of Life Membership qualifications. I shall read the resolution.

"Whereas, your Reference Committee on Special Memberships considers Section 6 under Chapter 5 of the Bylaws of the Michigan State Medical Society relating to Life Members as not being clear in its meaning; therefore, be it

"RESOLVED: That the wording, 'A doctor of medicine who has attained the age of seventy years or has been in practice fifty years and has maintained an active membership in good standing for twenty-five years in any constituent state society, with dues paid for the previous calendar year, may, upon his application and recommendation of his component county society, be transferred to the Life Members' Roster', be changed to indicate what, if any, membership in the Michigan State Medical Society is required."

Dr. Fenton was with us and we discussed this at quite some length. We changed the wording of Section 6 on Life Members to read as follows:

"RESOLVED: That the wording, 'A doctor of medicine who has been a member of the Michigan State Medical Society for a minimum of five years and who has attained the age of 70 years or has been in practice fifty years and has maintained an active membership in good standing for twenty-five years in any constituent state society of the American Medical Association, with dues paid for the previous calendar year, may, upon his application and recommendation of his component county society, be transferred to the Life Members' Roster."

The Reference Committee approves this change in the Bylaws, and I so move.

F. P. Rhoades, M.D.: Second the motion.
[*The motion was put to a vote and was carried unanimously.*]

XX.—4(e). BY-LAWS, CHAPTER 12, SECTION 1 RE TERM OF COUNCILORS

A. B. Gwinn, M.D.: This resolution was introduced by Dr. A. C. Stander and has to do with a change in the election of Councilors:

"Whereas, in the discussion both on the floor of this House and the corridors it becomes apparent that instead of identification of the members of the House and members of the Society with The Council and the Board of Directors of Blue Shield, there is instead a feeling that a barrier in effect exists between The Council and the Board of Directors of Blue Shield, and

"Whereas, it is in the province of members of this House of Delegates to amend its By-laws, and

"Whereas, the influence and identification of the delegates and members-at-large with The Council may be facilitated by this action; be it therefore

"RESOLVED: That Chapter 12, Section 1 of the By-laws be changed by striking the term 'five years' and substituting the term 'three years, and no more than two successive terms at one time.'"

The Reference Committee discussed this thoroughly. We had counsel on it, and we felt that because of the

importance of the problem involved, the Reference Committee should disapprove this resolution.

We therefore disapprove this resolution, and recommend that the Speaker of the House of Delegates appoint a committee to study the feasibility of this change, and to report back to this House of Delegates at the annual session in 1959.

I move approval of this portion of the report of the Reference Committee.

D. W. Thorup, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

A. B. Gwinn, M.D.: Mr. Speaker, I move that the Reference Committee's report be accepted in its entirety.

C. L. Weston, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XV—36. MOTION TO CORRECT ERROR IN LIST OF LIFE MEMBERS

The Speaker: If there is no objection, we will revert to unfinished business and will request Dr. Fenton to present a motion to correct:

E. H. Fenton, M.D.:

"Whereas, an error of communication has become apparent since the introduction of the list of Special Memberships from Wayne County as submitted by your Reference Committee, and

"Whereas, Wyman D. Barrett, M.D., and Ralph H. Pino, M.D., do not desire to be transferred to the classification of Life Membership which this House has approved; therefore, be it

"RESOLVED: That the names of Wyman D. Barrett, M.D., and Ralph H. Pino, M.D., be removed from the classification of Life Membership."

I move that this resolution be approved.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

XX—9. ON MISCELLANEOUS BUSINESS

XX—9(d). GREATER INTEREST IN DIABETES DETECTION

F. W. Smith, M.D. [Clinton]: This Reference Committee studied the resolution introduced by Dr. Baske, which I shall read.

"Whereas, early detection and treatment of diabetes tends to prevent the serious consequences of this disease, and

"Whereas, this early detection and treatment is best handled by the private physician, and

"Whereas, any program aimed at this early detection should be led and co-ordinated by the medical profession through its county organizations; therefore, be it

"RESOLVED: That the Michigan State Medical Society, through its Committee on Diabetes, make every possible effort to interest the component county medical societies in programs of detection; and be it further

"RESOLVED: That this program be integrated with the programs of the Michigan Diabetes Association and, when in the interest of the patient, the Michigan Department of Health and local health department."

Your Reference Committee deliberated on this resolution, and the only difficulty we had was in the wording of the second "Resolved." It was decided to delete that part and substitute the following:

"RESOLVED: That the State and component medical societies exercise their responsibility for leadership and direction of diabetes programs undertaken by the Michigan State Medical Society, the Michigan Diabetes Association, the Michigan Department of Health, local health departments and others interested in said programs."

I move the adoption of this resolution as amended.

C. W. Oakes, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

F. W. Smith, M.D.: I move the adoption of the report of our Reference Committee as a whole.

W. C. Beets, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—12. ON NATIONAL DEFENSE AND DISASTER PLANNING

L. R. Leader, M.D. [Wayne]: This resolution has to do with commendation to the Michigan Office of Civil Defense in respect to Mr. Ralph M. Sheehan. Mr. Sheehan has worked very vigorously and cooperatively with the Committee on National Defense and Disaster Planning, and he has really taken this committee and named it the Advisory Committee on Medical Affairs. This is a resolution which was brought before the Reference Committee, and which we have adopted unanimously.

"Whereas, the Michigan State Medical Society Committee on National Defense, in its efforts to improve the quality of medical preparedness against both civil and military disaster, has received the most complete and wholehearted co-operation from Mr. Ralph M. Sheehan, Director, Michigan Office of Civil Defense, and

"Whereas, this very cordial relationship has resulted in a substantial improvement in our state of medical preparedness; therefore, be it

"RESOLVED: That the Michigan State Medical Society extend to Mr. Ralph M. Sheehan and his staff its most sincere appreciation for their accomplishments on behalf of the people of Michigan."

I move adoption of this resolution.

A. B. Gwinn, M.D.: I second that motion.

[*The motion was put to a vote and was carried unanimously.*]

L. R. Leader, M.D.: I move the adoption of the report of this Reference Committee as a whole.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

C. I. Owen, M.D.: I move we conduct the rest of our business and then adjourn until tomorrow morning, and hear the rest of the report tomorrow morning.

[*Cries of "No!"*]

S. L. Loupee, M.D.: I second that motion.

[*The motion was put to a vote and was lost.*]

COPIES OF YAMASAKI SLIDES OF NEW HEADQUARTERS BUILDING

The Speaker: There is one minor item that is not a matter of business but which is actually something that would be an expression of the desire of this House.

Dr. Jones, who, as you know, is a Past President of this Society and as Chairman of the Big Look Committee, has been the one handling all matters in regard to our new building, would like a show of hands by this House as to whether or not it would be advantageous to have a series of copies of the slides made which Mr. Yamasaki showed, to be made available to you for your county societies.

We are very anxious that every member of the State Medical Society feel that he is a part of this new building, and I believe for a very minor outlay of money we can have some duplicates made of the slides so that you can show them.

May I have a show of hands as to whether the House thinks it is a good idea?

Are there any who think it is not a good idea? Thank you. We shall proceed with it, Dr. Jones.

XXI. ELECTIONS

XXI—1. COUNCILOR, SEVENTH DISTRICT

We shall start with the Seventh District. There is a vacancy in this District by reason of the resignation of Dr. Joseph Beer because of illness. Do we have nominations for Councilor from the Seventh District?

H. B. Zemmer, M.D. [Lapeer]: I would like to place in nomination the name of a man who has been in practice for twenty years. He is a Past President of the St. Clair County Medical Society and former chief of staff of the Port Huron General Hospital, and at present is a member of the Executive Committee of the St. Clair County Medical Society. His name is Dr. Charles Hoyt, of Port Huron.

The Speaker: Dr. Charles Hoyt, of Port Huron, has been nominated as Councilor for the Seventh District.

C. W. Oakes, M.D.: I second the nomination of Dr. Hoyt.

K. T. McGunegle, M.D. [Sanilac]: I would like to support the nomination of Dr. Hoyt.

The Speaker: Are there any further nominations?

C. W. Oakes, M.D.: I move that nominations be closed and that he be declared elected.

R. W. Teed, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: Dr. Hoyt is declared elected.

XXI—2. COUNCILOR, ELEVENTH DISTRICT

Nominations are in order for Councilor for the Eleventh District. Dr. William LeFevre, of Muskegon, is the incumbent.

Paul Ivkovich, M.D. [Mecosta-Osceola-Lake]: The component societies of the Eleventh District wish to have Dr. LeFevre continue as Councilor for our District.

The Speaker: Are there further nominations?

D. R. Boyd, M.D.: [Muskegon]: I move that nominations be closed and that a unanimous ballot be cast for Dr. William LeFevre as Councilor.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. LeFevre is declared elected.

XXI—3. COUNCILOR, TWELFTH DISTRICT

Councilor for the Twelfth District. B. T. Montgomery, M.D., of Saulte Ste. Marie, is the present incumbent. Are there nominations?

W. F. Mertaugh, M.D. [Chippewa-Mackinac]: I wish to nominate Dr. Montgomery to succeed himself. Our County Society is unanimously in support of entering his name for re-election. He has done a good job.

J. D. Miller, M.D.: I shall be glad to support that nomination.

Joseph Hickey, M.D. [Wayne]: I second it.

G. S. Fisher, M.D. [Wayne]: I move that nominations be closed and that the unanimous ballot be cast for Dr. Montgomery.

E. C. Texter, M.D. [Wayne]: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

The Speaker: Dr. Montgomery is declared re-elected.

XXI—4. COUNCILOR, THIRTEENTH DISTRICT

Councilor for the Thirteenth District. T. P. Wickliffe, M.D., of Calumet, is the present incumbent. May we have nominations?

P. S. Sloan, M.D. [Houghton-Baraga-Keweenaw]: I would like to nominate Dr. Wickliffe to succeed himself as Councilor.

J. R. Heidenreich, M.D. [Menominee]: I wish to endorse the nomination, and move that nominations be closed and that he be elected unanimously.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. Wickliffe is declared re-elected.

XXI—5. COUNCILOR, SEVENTEENTH DISTRICT

Councilor for the Seventeenth District. W. B. Harm, M.D., of Detroit, is the incumbent. I have been informed that Dr. Harm is not a candidate for re-election. Are there nominations?

L. J. Bailey, M.D.: Sensing the present temper of the House, I shall forego the speech I had written, and nominate a man who has been an acquaintance of mine for so many years that I shall not disclose how many because you wouldn't believe it.

He is Past President of the Wayne County Medical Society, Chairman of its Board of Trustees, Alternate Delegate to the American Medical Association, and a moving spirit in the promotion of our new Wayne County Medical Society building, which we hope you will all visit.

I should like to nominate Dr. W. W. Babcock.

P. C. Gittins, M.D.: I wish to second the nomination of Dr. Warren Babcock, and at this time move that nominations be closed and he be elected.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: Dr. Babcock is declared elected.

May I state at this time, before we proceed with the election of delegates to the American Medical Association, that Dr. Rodger, of Bellaire, has asked that his name be withdrawn from the slate as far as alternate delegates are concerned. Some of you have been anticipating nominating Dr. Rodger, but you will have to nominate someone else.

XXI—6. DELEGATES TO AMERICAN MEDICAL ASSOCIATION

Next is nomination of delegates to the AMA. There are three to be elected. W. D. Barrett, M.D., of Detroit; W. H. Huron, M.D., of Iron Mountain, and R. L. Novy, M.D., of Detroit, are incumbents. What is your pleasure?

E. A. Osius, M.D.: I would like to nominate Dr. W. D. Barrett to succeed himself.

W. L. Sherman, M.D. [Wayne]: I second the nomination of Dr. W. D. Barrett.

Sidney Adler, M.D.: I wish to nominate Dr. Robert L. Novy.

C. I. Owen, M.D.: I understand Dr. Huron is not a candidate for re-election. For that reason, I would like to nominate outgoing President George W. Slagle, who has

done such a magnificent job as an alternate delegate and as a seated delegate when on occasion a delegate was absent, and such a magnificent job as President of our Society.

D. A. Bowman, M.D.: I would like to submit the name of a man who has been a delegate to this Society for the past ten years, a delegate to the Michigan State Medical Society from his county, and alternate delegate to the AMA for the past five years, and a member of The Council. I might say he has attended all meetings. I nominate O. J. Johnson, M.D.

The Speaker: Are there further nominations?

D. N. Sweeny, M.D.: I move that nominations for delegates to the AMA be closed.
[*The motion was severally seconded.*]

The Speaker: You will use ballot No. 2. The delegates named the other day as tellers will please officiate: Drs. Sweeny, Fuller, Daugherty and Weston.
You may vote for one, two or three on your ballot, if I am not mistaken. Those receiving the three highest number of votes are declared elected.
[*Balloting.*]

D. N. Sweeny, M.D.: The tellers certify that the following have been elected as delegates to the AMA: Drs. Novy, Barrett and Slagle, in that order. [*Applause*]

The Speaker: Drs. Novy, Barrett and Slagle are declared elected as delegates to the AMA.

XV—37. EXPRESSION OF APPRECIATION TO W. H. HURON, M.D.

W. W. Babcock, M.D.: I have been an alternate delegate to the American Medical Association for several years. This year I am not running for office, and therefore I feel qualified to speak.
I want to tell this House of Delegates that they are suffering a great loss, no matter who is elected, in losing Dr. Huron as a delegate to the American Medical Association. I have been at the AMA meetings for many successive years. Dr. Huron has been a tower of strength.
As you know, in the American Medical Association positions for the most part are on a seniority basis. Dr. Huron has been chairman of many reference committees, and he has done yeoman service for not only the AMA but for the State of Michigan.

I therefore move that this House of Delegates express to Dr. Huron its appreciation for his yeoman services. [*Applause*]

C. I. Owen, M.D.: I second the motion.

The Speaker: We shall call for a rising vote.
[*The members arose and applauded.*]

W. H. Huron, M.D. [Iron Mountain]: Gentlemen, I appreciate very much the sentiment that has been expressed by my good friend, Dr. Babcock. I wish to say that I spent ten years on The Council and ten years as a delegate to the American Medical Association. I don't consider myself an "old man" nor senile. However, I do feel that there are times when younger men have to be brought up and made busy in the organization. That is the only way they can learn what the organization is all about.
I appreciate everything the State of Michigan and this Medical Society have done for me. I am very glad that I was able to render some service. [*Applause*]

The Speaker: I am informed that the slides of our new building, which we discussed a few minutes ago, will be available to you upon request to the office at 606 Townsend. We will not just send them out willy-nilly. There will probably be only four or five sets available. If you would like to present them at your county society meeting will you request them from the headquarters office. They are 35 mm, standard size.

RECOGNITION OF GUESTS

The Speaker: It is my understanding that Dr. Oldfield, President of the Illinois State Medical Society, and Dr. O'Neill, President-elect of the Illinois State Medical Society, are in the audience. Will they stand, please? [*Applause*] We are very happy to have you gentlemen with us.

COMMENDATION OF SPEAKER, K. H. JOHNSON, M.D.

A. C. Stander, M.D.: I would like to commend the Speaker and his helpers who have been so effective in carrying out the spirit of the resolution for information to the delegates that was passed two years ago and that was partially effective last year and extremely effective this year, in giving all the delegates information on all the resolutions in such a rapid and accurate manner [*Applause*].

The Speaker: This implementation was carried out by Dick Philleo, who is one of the employes of the MSMS. Do you feel it has worked well enough for us to attempt it again next year, or for it to be attempted again next year?
[*Cries of "Yes!"*]

XXI—7. ALTERNATE DELEGATES TO AMA

G. S. Bates, M.D.: With the unanimous approval of the delegates of Wayne County, and following their instructions, I have the honor to nominate for alternate delegate to the AMA a practicing surgeon of Detroit, a long-time member of this House of Delgates, the successful and respected Immediate Past President of the Wayne County Medical Society, Luther R. Leader, M.D. [*Applause*]

D. R. Smith, M.D. [Dickinson-Iron]: I would like to nominate Dr. John Heidenreich, of Northern Michigan, as an alternate delegate.

W. L. Brosius, M.D.: I would like to nominate Dr. Bill Bromme to succeed himself.

A. B. Gwinn, M.D.: I would like to place in nomination the name of a man who has served on The Council from our Fifth District for twelve years. He is a surgeon—Dr. J. D. Milleer, of Grand Rapids.

W. A. Scott, M.D. [Kalamazoo]: I would like to nominate as alternate delegate Ralph W. Shook, M.D., of Kalamazoo, who has been a delegate from Kalamazoo County to the State Medical Society and who is presently on The Council and Chairman of the Finance Committee.

Alice Palmer, M.D. [Wayne]. I would like to move that nominations be closed.
[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

The Speaker: The names of Dr. Luther Leader of Wayne, Dr. Heidenreich of Northern Michigan, Dr. Bromme of Detroit, Dr. J. D. Miller of Grand Rapids, and Dr. Shook of Kalamazoo are submitted.
[*Balloting.*]

D. N. Sweeny, M.D.: The board of tellers certifies that the result of the balloting is as follows, in this order: Drs. Leader, Bromme and Shook. [*Applause*]

The Speaker: These three men are declared elected as alternate delegates to the AMA.

XXI—8. PRESIDENT-ELECT

C. I. Owen, M.D.: I would like to present the name of Dr. Milton A. Darling for President-elect. He is the choice of the Wayne delegation. You all know him. He has been a member of the House for many years. He has been President of the Wayne County Medical Socity, a Trustee of the Wayne County Medical Society, Chairman of the Board of Trustees, chief of a large hospital staff, as well as head of the department of obstetrics and gynecology, and has practiced for many years in Detroit.

We submit the name of Dr. Milton A. Darling.

F. P. Rhoades, M.D.: I take pleasure in seconding the name of Dr. Milton Darling as President-elect.

The Speaker: Are there further nominations?

C. I. Owen, M.D.: I move that nominations be closed and that he be declared elected by acclamation.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*] [*Applause*]

The Speaker: Dr. Darling is declared President-elect. Dr. Slagle, will you escort Dr. Darling to the rostrum?

[*The members arose and applauded.*]

M. A. Darling, M.D.: I would be less than human if I were not slightly overcome on this occasion with the honor I have just received, which I have never anticipated. All I can say is that in a spirit of abject humility I shall do the best I can to carry out the duties of this office, and such tasks as I may be asked to perform.

In anticipation of what is coming, I know what the incoming President meant in military terms, "We have a lot of ground to consolidate and maybe some foxholes to dig."

I thank you, one and all. [*Applause*]

[*The Vice Speaker assumed the Chair.*]

XXI—9. SPEAKER OF THE HOUSE OF DELEGATES

L. A. Drolett, M.D.: Last year, in Grand Rapids, I had the privilege of nominating my very good lifelong friend, Ken Johnson, to succeed himself as Speaker of the House of Delegates. I think you will all agree with me when I say he has done a tremendous job in controlling this House, and I would like to again place his name in nomination to succeed himself as Speaker of the House. [*Applause*]

W. L. Brosius, M.D.: I would like to support that nomination and move that nominations be closed and the Secretary cast the unanimous ballot for Dr. Johnson.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*] [*Applause*]

[*The Speaker resumed the Chair.*]

The Speaker: Thank you very much, gentlemen. I am deeply appreciative of your confidence in my ability. I don't know what I am going to do now. I told you I wanted to go fishing, but how can I do that now? [*Laughter*]

XXI—10. VICE SPEAKER OF THE HOUSE

D. I. Sugar, M.D. [Wayne]: It gives me great pleasure to nominate one of Wayne County's brightest lights, Dr. Jim Lightbody, as Vice Speaker of the House of Delegates.

E. G. M. Krieg, M.D.: I would like to add my personal admiration and congratulations to the name of Dr. Lightbody, and I so move.

R. W. Teed, M.D.: I move that nominations be closed and that the Secretary be instructed to cast the unanimous ballot for Dr. Lightbody.

The Speaker: I think we need go no further. I am sure we can vote this by acclamation. [*Applause*] Jim has done a wonderful job, and I am sure he is ready to take things over almost any day now.

I have just received word that the Reference Committee on Medical Service and Prepayment Insurance has completed its deliberations and their report is in the process of being mimeographed. It will be ready in about half an hour. What is your pleasure? Do you wish to recess for twenty minutes?

XV—38. MOTION TO RECESS AT A TIME CERTAIN

J. B. Blodgett, M.D.: The matter we are about to discuss is the most important matter of this year. Considerations of the report of this Reference Committee require unhurried, careful, considerate attention. Our purposes will not be served if we go on into the night discussing these matters.

I therefore move that we plan to recess this House at twelve o'clock tonight if we have not finished the business of the House by that time.

R. W. Teed, M.D.: Support.

All those in favor of the motion to recess at midnight if our business is not completed, raise your hands. [62] Those opposed, please raise your hands. [42] The motion is carried.

E. G. M. Krieg, M.D.: I move we adjourn this meeting until nine o'clock tomorrow morning.

C. I. Owen, M.D.: I second that motion.

The Speaker: All those in favor, say "aye"; those opposed, "no." The motion is lost.

XX—13. ON MEDICAL SERVICE AND PREPAYMENT INSURANCE

M. L. Lichter, M.D.: I am prepared to present the complete report of your Reference Committee on Medical Service and Prepayment Insurance. Before I make that report, as Chairman of this Reference Committee I must express my deepest appreciation to the members of the Committee for their invaluable and wise deliberations of the matters presented to the Refernce Committee: Dr. Fallis of Detroit; Dr. Furlong of Pontiac; Dr. Harris of Lansing; Dr. Novy of Detroit; Dr. Fred Ryan of Kalamazoo; Dr. Van der Velde of Holland, and Dr. Wilson of Clinton. Again, to each of these gentlemen I think that not only I but the entire House owes a vote of appreciation.

The Reference Committee, in its meetings, allowed and urged everyone present to participate fully in the discussions in an effort to assist the Reference Committee in arriving at recommendations which I shall now present.

I will say that there are two substitute resolutions which are now being mimeographed and which will be passed out to you when they are available.

The first item considered by the Reference Committee was the annual report of the Medical Care Insurance Committee contained in the supplemental report of The Council. The Reference Committee recommends approval of this report. I so move.

A. B. Gwinn, M.D.: Second the motion.

M. L. Lichter, M.D.: This report of the Medical Care Insurance Committee reads as follows:

"This Committee was charged with the responsibility of implementing the Statement of Principles on Prepaid Medical Care adopted by the House of Delegates in September, 1957.

"Since then the Committee has averaged more than one meeting per month for extended sessions during which representatives of various groups having special interests, individual doctors of medicine, officers of MSMS and Michigan Medical Service were of valuable assistance to the Committee in discharging its responsibility.

"In meticulous detail the Committee scrutinized the new contract of Blue Shield as it developed. It also recommended necessary modifications in the California Relative Value Scale and established dollar unit values, both of which actions received the concurrence of the Permanent Advisory Committee on Fees. The Committee recommended the endorsement of the new Michigan Medical Service contract as complying in every detail with the MSMS Statement of Principles.

"To assure a closer liaison between practicing physicians, MSMS and the carrier (Blue Shield), this Committee has developed the work and responsibilities of Councilor District Medical Care Insurance Committees as directed by the Statement of Principles. These local Committees have been appointed by The Council and their activity during the coming year will be co-ordinated with the work of the MSMS Medical Care Insurance Committee. By this and other means, a continuing review of the Seal of Assurance Plan will be made and a direct line of communication established from the individual doctor of medicine to this Committee, the Permanent Advisory Committee on Fees, and The Council."

An addendum to this report, which was inserted by The Council, reads: "The Council, at its September 28, 1958, meeting, directed the Medical Care Insurance Committee to develop the Michigan Relative Value Scale."

[*The motion was put to a vote and was carried unanimously.*]

M. L. Lichter, M.D.: The next item considered by your Reference Committee was the supplemental report of the Medical Care Insurance Committee.

We recommend that this report be received as information. **We further recommend that copies be sent to the President and Secretary of each county medical society, and that the slides in connection therewith be made available.**

I move the adoption of this portion of the report.

E. G. M. Krieg, M.D.: Second the motion.

[*The motion was put to a vote and was carried unanimously.*]

XX—13(c). REPORT OF SEAL OF ASSURANCE AUDITING COMMITTEE

M. L. Lichter, M.D.: The next item is the report of the Auditing Committee on the Seal of Assurance Participation. We recommend that this report be received as information. I so move.

J. M. Wellman, M.D.: I second it.

M. L. Lichter, M.D.: This report is dated September 24, 1958, addressed to Kenneth H. Johnson, M.D., Speaker, MSMS House of Delegates, from the Auditing Committee on Seal of Assurance Participation.

"Dear Doctor Johnson:

"This Committee has met on September 24, 1958, in the Executive Offices of the Michigan State Medical Society, and in accordance with your instructions of September 18, 1958, offers the following report:

Total signed contracts received as of this date	3,999
Total withdrawals from contracts received as of this date	86
*Total contracts in force as of this date	3,913
Total number of Active, Life and Emeritus Members who are participating	3,399
Total number of nonmembers who are participating (465 nonmembers plus 49 interns and residents at the University of Michigan)	514
Total percentage of Active, Life and Emeritus members of MSMS who are now participating	57.9%
Total percentage of Active, Life and Emeritus members of MSMS who have withdrawn	1.4%
Total percentage of Active, Life and Emeritus members of MSMS who are undecided	40.7%

"The Auditing Committee on Seal of Assurance Participation finds the above figures to be correct, and the contracts indicated above to be presently in force, to be valid.

"The Committee has also reviewed the count of contracts in force in the separate counties and the percentages based on the number of participants who are members as compared with the number of Active, Life and Emeritus members, and finds them to be correct.

"Based on membership records as of July 31, 1958, 514 participants in the contracts presently in force were neither Active, Life or Emeritus members. They are, however, all doctors of medicine and fall under such categories as interns and residents (49), those members delinquent in dues as of July 31, 1958, and nonmembers of MSMS who are presently participating in $2,500-$5.000 Michigan Blue Shield contracts.

"Respectfully submitted,

s/Otto K. Engelke, M.D., *Chairman*
John M. Wellman, M.D.
John W. Rice, M.D.
Richard A. Rasmussen, M.D.

"*The total number of participating doctors of medicine is equivalent to:
66.8% of the total Active, Life and Emeritus membership enrollment of the MSMS, and
70.0% of the total Active membership enrollment of the MSMS."

The Speaker: Thank you, Dr. Lichter. The motion is to approve this report for information.

[*The motion was put to a vote and was carried unanimously.*]

XX—13(d). RESOLUTION RE RECOGNITION OF PSYCHIATRICALLY ILL PATIENT IN BLUE SHIELD'S M-75 CONTRACT

M. L. Lichter, M.D.: The next item considered by your Reference Committee was the following resolution:

"Whereas, the physicians of Michigan are being asked to support the proposed Seal of Assurance plan of Michigan Medical Service which involves participation of the new Blue Shield contract M-75, and

"Whereas, Blue Shield Plan M-75 continues, as in prior contracts, to discriminate against subscribers who suffer from nervous or mental conditions by limiting medical care to thirty days, and

"Whereas, such distinctions in illnesses are inequitable, particularly in a medically sponsored plan, and in view of the clinically recognized fact that many physical illnesses have concomitant emotional reactions and emotional illnesses are often manifested by physical symptoms, and

"Whereas, these distinctions in effect penalize the nervous or mentally ill patient and the physician who practices neurology or psychiatry because of the nature of the illness, and

"Whereas, Blue Shield Plan M-75 does not recognize in its fee structure either the additional education and training required for the medical specialties or the fact that a considerable amount of time is necessary for effective treatment of each psychiatric case, with the consequence that fees for psychiatric services are grossly inadequate and inequitable; therefore, be it.

"RESOLVED: That the Michigan Medical Service Blue Shield Plan M-75 does not adequately meet the problem of the psychiatrically ill patient; and be it further

"RESOLVED: That this resolution be presented to the September meeting of the Michigan State Medical Society House of Delegates; and be it further

"RESOLVED: That this resolution be published in the Detroit Medical News and the Journal of the Michigan State Medical Society."

Your Reference Committee gave careful consideration to this resolution and to its intent. Your Reference Committee offers the following substitute resolution:

"Whereas, considerable advance has been made in the diagnosis and treatment of mental illness; therefore, be it

"RESOLVED: That the problem of the care of mental illness as a benefit under Michigan Medical Service and Michigan Hospital Service contracts be called to the attention of the Board of Directors of Michigan Medical Service and of Michigan Hospital Service for their careful consideration.

I move the adoption of this resolution.

R. W. Teed, M.D.: Second.

Louis Jaffe, M.D.: A point of information. Does this mean that action can be taken on this matter by the Board of Directors without referring this back to the House of Delegates?

M. L. Lichter, M.D.: The intent of this resolution is to request the Boards of Directors of Michigan Medical Service and Michigan Hospital Service to give careful consideration to this problem. It would depend on the action of each of those Boards in the disposition of the request contained in the resolution.

If the problem is solved I am sure all those concerned would be pleased; if not, I am sure it would be brought to the attention of this House.

R. T. Costello, M.D.: As I remember the original resolution, that is all it asked for—simply that the Directors consider the problem.

The Speaker: It is my interpretation, Dr. Costello, that this resolution is more directive than the original.

R. T. Costello, M.D.: Yes; that is what I was implying.

D. W. Thorup, M. D.: If we are being meticulous about the words we use, I believe it would be correct to say, ". . . the Board of Directors of the Michigan Medical Service and the Board of Trustees of the Michigan Hospital Service."

I move that the resolution be amended in that respect.

[*The motion was severally seconded.*]

[*The motion to amend was put to a vote and was carried unanimously.*]

[*The motion as amended was put to a vote and was carried unanimously.*]

XX—13(e). STUDY OF METHOD TO ALLOT PROPORTIONAL UNITS WHEN MEDICAL SERVICE IS PROVIDED BY MORE THAN ONE PHYSICIAN

M. L. Lichter, M.D.: The next item considered by your Reference Committee was the following resolution:

"Whereas, the Blue Shield service plan embodies a full coverage hospital program, and

"Whereas, the best modern medical care is frequently a team program involving two or more physicians, and

"Whereas, the division of fees on the basis of services actually rendered is both equitable and ethical, and an established principle of group practice, and

"Whereas, it would be inconsistent with the principle of free individual enterprise to deny to an individual what is granted to a group, and

"Whereas, many hospital procedures, especially surgical, can well be divided into diagnostic, definitive or operative care, or postoperative or convalescent phases; therefore, be it

"RESOLVED: That this House of Delegates request the appropriate committee or committees to study the advisability and method of allotting proportional units of the total unit value, when more than one physician participates actively in the care of the patient, on the basis of (1) diagnostic and pre-definitive care, (2) definitive or surgical procedures, and (3) post-definitive care when the latter is not properly or essentially a part of the definitive procedure or treatment, or when the physician who has performed this definitive treatment is not available; and be it further

"RESOLVED: That the members of this House of Delegates be informed of the action taken as soon as possible, or at least by the time of the next meeting of the House of Delegates, be it a regular or special meeting."

Your Reference Committee recommends disapproval. This problem has been repeatedly brought before appropriate committees that have the responsibility for making recommendations.

I move the adoption of this portion of the report.

R. W. Teed, M.D.: Second the motion.

A. C. Stander, M.D.: This is going to be a very brief comment. We asked for further study. The arguments and the discussions and the criticisms of many of the things we are going to take up later have been that this study and other studies on these problems have not been forthcoming. We feel this is a study and a problem which, while it may not apply to Wayne, does probably apply to other portions of the State.

To deny even the chance for this matter to be studied, it seems to me, is contrary to the spirit of cooperation and an attempt to evaluate problems that should arise from time to time in Blue Shield coverage.

If the principle that is attempted here, which is nothing more than a further study, is to be denied, is it not entirely possible that many other problems have been or will be similarly denied because they have been previously studied, whereas studying them again with perhaps a new idea or new concept might possibly bring about some change of opinion?

Therefore, I feel that the action of this Reference Committee is contrary to what I feel should be a co-operative attitude on the part of those individuals who are responsible for consideration of the modification of the various problems that arise from time to time in Blue Shield coverage.

W. W. Babcock, M.D.: I think Dr. Stander has presented his side of the question very well. However, this Reference Committee must have had some very definite reason for not recommending adoption of the resolution, and I would like to suggest that Dr. Lichter recall to the best of his ability the deliberations leading to the refusal of this resolution, so that we may know both sides of the question and can properly decide.

M. L. Lichter, M.D.: In the resolution, disapproval of which is recommended, there are committees that have studied the problem and there are committees that will continue to study this and similar problems.

In view of the structure developed for the study of these problems, it was felt that this should not be regarded as a separate thing but should be included in the projected studies of all matters concerned with fees and the development of the relative value schedule.

We felt this item by itself, at this time, had no special merit over a great number of problems in the area of fees, and I think Dr. Stander can be assured that the disapproval of this resolution does not mean that the committees charged with these responsibilities will not take this into consideration.

A. C. Stander, M.D.: If that is the case, I don't see why it shouldn't be approved.

E. G. M. Krieg, M.D.: I move the previous question.

[*The motion was put to a vote and was carried, but not unanimously.*]

XX—13(f). NO DISTINCTION BETWEEN NONPARTICIPATING AND PARTICIPATING PHYSICIANS IN BLUE SHIELD

M. L. Lichter, M.D.: Your Reference Committee held extensive hearings on this question both yesterday and today. These hearings enabled every interested and concerned member of this House, as well as members of this State Medical Society, to present their viewpoints. In addition, the Reference Committee had valuable technical assistance and further had the invaluable assistance of the legal counsel, Mr. Lester P. Dodd, of the Michigan State Medical Society.

The Reference Committee offers a substitute resolution, which is being distributed at this time. I will read the "Resolved" portion of the original resolution:

". . . therefore, be it

"RESOLVED: That the House of Delegates of the Michigan State Medical Society direct the Michigan Medical Service to pay the nonparticipating physician in the same manner as the participating physician; and be it further

"RESOLVED: That the words 'in an emergency' be deleted from Section 5, last paragraph of the M-75 contract."

I will now read the substitute resolution—

P. T. Lahti, M.D.: A point of order, Mr. Speaker. May I ask that Dr. Lichter read the entire resolution?

The Speaker: If it is the wish of the House, we shall have it read; but again I suggest to you that this has been gone over repeatedly, and if you gentlemen wish to maintain your time schedule and try to get through by midnight, you are going to have to speed up somewhere.

Is it the wish of the House that the entire resolution be read? Those in favor of having it read, say "aye"; those opposed, "no." It will not be read.

M. L. Lichter, M.D.: The substitute resolution reads as follows:

"Whereas, the Statement of Principles as passed by the House of Delegates of the Michigan State Medical Society upon which the M-75 plan is based states in Principle I: 'There must be complete freedom of choice of physician by the patient. Nothing in any contract will imply any restriction of this Principle,' and

"Whereas, the doctor-opinion survey on prepaid medical care plans, page 61, paragraph 12, reveals that the majority of the doctors of Michigan 'feel that where service is rendered by a nonparticipating physician the Blue Shield payment should go directly to the doctor,' and

"Whereas, the M-75 policy implies against nonparticipating physicians as indicated in Section 5, last paragraph, by the statement: 'NONPARTICIPATING: If, in an emergency, the member shall utilize the services of a nonparticipating physician . . .', and this is considered in direct violation of Section 10 of the Enabling Act MPA 108-1939, which states: 'The private physician-patient relationships shall be maintained and the subscriber shall at all times have free choice of doctor of medicine,' and

"Whereas, the present stated intent of M-75 administration is to pay the patient of the nonparticipating physician rather than the physician himself, and

"Whereas, this discrimination against the nonparticipating physician infringes upon his right to set his own fee, and seriously affects the patient-physician relationship; therefore, be it

"RESOLVED: That recompense for services rendered to a patient under Michigan Medical Service contracts continue to be the same, whether the physician is participating or nonparticipating. The participating physician will be paid directly by Michigan Medical Service. The nonparticipating physician will also be paid by Michigan Medical Service upon obtaining an assignment from his patient; and be it further

"RESOLVED: That, because the problem of direct payment to nonparticipating physicians for services rendered to subscribers involves complex questions of law and equally complex questions pertaining to the honoring of existing contracts and contract offerings by Michigan Medical Service, a complete study of alternate methods of payment for services rendered by nonparticipating physicians be undertaken by the Medical Care Insurance Committee of the Michigan State Medical Society in conjunction with legal counsel for Michigan State Medical Society, and that such study be diligently pursued; and that as soon as the Committee is able to submit its findings based upon such study, its findings and recommendations shall be submitted to the next regular or a special meeting of the House of Delegates called for that purpose."

I move the adoption of this substitute resolution.

[*The motion was severally seconded.*]

E. G. M. Krieg, M.D.: I would like to discuss this from a legal standpoint. I think this morning Mr. Lester Dodd brought this problem up and discussed this as an enabling act. I agree with his conclusions. Mr. Dodd's interpretation said the reading of the enabling act is quite definite, that there is no payment under this nonvoluntary health program that can be paid to any other individual except the participating physician.

I think for that reason this is out of order. I don't think it would hold up if we are going to follow the enabling act as it is written.

The Speaker: Dr. Krieg, I am not a lawyer. I see only two or three lawyers around the room. I can't say anything about the legal part of it, but apparently, in my opinion, the substitute resolution is in order.

R. R. Cooper, M.D.: I would like to ask a question for information, if I may.

For eighteen years, the nonparticipating doctor has been paid exactly in the same manner as the participating doctor. What is the change in the M-75 contract that suddenly changes the whole legal problem so that what could be done yesterday and could still be done under the old contract cannot be done under the new contract? I haven't read anything in the contract that would do that.

M. L. Lichter, M.D.: The Reference Committee recognized that this was a very controversial matter, and felt that it required a considerable amount of study.

As far as the legal aspects of this question are concerned, the Reference Committee had to turn to the legal counsel of this State Medical Society for his advice.

Mr. Speaker, I am wondering whether you would permit Mr. Dodd the privilege of the floor to speak to this point.

The Speaker: Does the House wish to hear from Mr. Dodd?

G. S. Fisher, M.D.: May I first ask another question so that if Mr. Dodd is called upon by the House to speak he might also answer it.

It being common practice for commercial carriers and other insurance groups to allow assignments in general, I would like to know the force of the first "Resolved." Is there a legal way of not honoring an assignment?

M. L. Lichter, M.D.: Since I am not an attorney, I cannot answer questions that require legal opinion. I would, however, like to add one thing that I should have said in my previous remarks.

This question of method of payment was adopted in the report of the Owen Committee by this House last year when it urged Michigan Medical Service to develop means by which the patient of a nonparticipating doc-

tor would be paid directly. The Committee felt that while it was bound by the decision of this House, there was enough in the entire discussion of this matter to recommend (as in the second "Resolved") that this be diligently studied and reported back to this House.

Mr. Speaker, again I ask the privilege of the floor for Mr. Dodd, to answer questions involving legal opinion.

THE SPEAKER: What is your pleasure, gentlemen? Those in favor of asking Mr. Dodd to appear, say "aye"; those opposed, "no." Mr. Dodd, will you please come forward?

MR. LESTER P. DODD: I assure you that this is your choice, not mine.

I should like to preface anything I have to say by the most sincere assurance that I am not on the side of the participating doctor as against the nonparticipating doctor, or vice versa. I have no concern with the internal problems of the medical profession, and I shall try honestly and to the best of my ability to refrain from getting into those discussions of policy with which you gentlemen and you alone are concerned.

I shall say in all honesty that I assisted in the drafting of the second part of the resolution that has just been presented to you because I feel sincerely that there are complex questions of law as well as complex questions of policy that should deter you gentlemen from making any hasty changes in your Michigan Medical Service contract that has been sold to the public.

Because those questions are complex, I can't give you all of the answers to them offhand, and I shall not pretend to do so. That is why I think a continued study of this matter, in which I shall be most happy to co-operate with your Committee in trying to work out an acceptable and lawful solution to what you are trying to do, would be valuable.

The enabling act under which the Michigan Medical Service Corporation was organized gives, in its initial phases, a choice to every doctor of medicine in this State who is licensed to practice medicine. He is entitled to participate under Michigan Medical Service. That is the law. That is the enabling act under which Michigan Medical Service was organized. That is his choice and his No. 1 choice. He may participate or he may refuse to participate.

Now, under that enabling act Michigan Medical Service is organized. The primary obligation which Michigan Medical Service undertakes under its contracts which are sold to the public is that it undertakes to provide medical service to its subscribers. It does not undertake to pay physicians; it undertakes to furnish medical service by reason of the fact that it has been organized by the doctors of this State, and it proposes to furnish that service, and it contracts to furnish that service by reason of the fact—and solely by reason of the fact—that it has a sufficient number of participating doctors of medicine to enable it to offer that contract to the public.

It therefore contracts that it will furnish to every subscriber of Michigan Medical Service, medical service in accordance with the terms of its contract by physicians who have agreed with it to render such service.

Obviously, unless it can back up its contract by having upon its rolls a sufficient number of doctors of medicine with which to render that service, it cannot honor its contract obligation. Basically, it is just that simple. There must be participating physicians in sufficient number to enable Michigan Medical Service to fulfill its commitment.

Unless it has a sufficient number of doctors of medicine who have agreed to furnish that service at the cost of Michigan Medical Service, then it cannot fulfill its commitments.

Now, as a matter of grace and not as a matter of right, almost from the inception of Michigan Medical Service, and because Michigan Medical Service and the Insurance Department of the State of Michigan and the Attorney General, who is the adviser to the Insurance Department, have taken consistently the position that the public interest comes first and that a subscriber to Michigan Medical Service who wishes to obtain (and again the contract and the enabling Act seek to preserve the free choice of physician by the patient)—means were sought by which, in spite of the fact that the only contract obligation is to furnish the services of the participating physician, it was deemed advisable in the public interest—and that policy, I understand, has been consistently followed—that nonparticipating physicians, bearing in mind that they have the right to participate if they wish, would nevertheless be compensated.

That has been done up to this point under a provision in the contract that in an emergency a subscriber obtains the services of other than a participating physician, which is all that any service contract can offer—and please keep that point in mind. No service contract can be offered unless you have behind it the agreement of a sufficient number of physicians to service that contract, otherwise you are not selling the transaction to the public.

So, as a practical matter, and in order to carry out the broad purposes of the Act, the term "in an emergency" has been liberally construed throughout to provide or in effect to be considered as authorizing and justifying the payment of the same fee to a physician who by his own choice does not participate under the plan.

May I illustrate the reason for the statement in this substitute resolution that complex problems exist. If this body directs Michigan Medical Service to so revise its contract as to make no distinction between participating and nonparticipating physicians, it would practically automatically write itself out of business. This organization cannot lawfully and honorably contract with members of the public to assure them of the services of a nonparticipating physician, because the nonparticipating physician is not obliged to render such service at such fee.

If by ill-advised or hasty action (and again let me assure you I am not concerned with the merits of the internal controversy in this matter) Michigan Medical Service were directed to rewrite its contract to eliminate any distinction (and I am not talking about class distinction but about the legal distinction that is required to be there between participating and nonparticipating doctors of medicine), you would be directing it to write a contract which it could not possibly fulfill and which no honorable person could enter into.

Practical means have been found in the past to recognize an obligation to the public under this contract which is not a legal obligation, and I am sincerely hopeful that if you permit this Committee to continue a study, and if we can possibly find ways and means within the law—within the letter and within the spirit of the law—to do what I know a great number of you gentlemen want to do, I shall sincerely devote every effort that I can make to helping to solve that problem; but I sincerely hope that you will not, because of that internal problem, take an action that will defeat not only your own purpose but the basic purpose of Blue Shield.

I shall be very glad to answer any specific questions to the best of my ability.

E. G. M. KRIEG, M.D.: Mr. Chairman, a question of order. I should like to have Mr. Dodd read that portion of the enabling act that has to do with the payment of fees to the doctor. I think it is Section 3, if I am not mistaken.

MR. DODD: I know of no provision in the enabling act that pertains to the payment of fees.

E. G. M. KRIEG, M.D.: Will you please read Section 3, which I think has to do with that?

MR. DODD: I think this is probably the one you are referring to: "No contract by or on behalf of any non-

profit medical care corporation shall provide for the payment of any cash or other material benefit by that corporation to the subscriber or his estate on account of death, illness or injury."

Is that the one to which you refer?

E. G. M. Krieg, M.D.: Yes; thank you.

The Speaker: I am sorry, Mr. Dodd, but I shall have to interrupt you. We have two minutes left.

R. F. Fenton, M.D.: I would like to move that we stop the clock.

The Speaker: In effect, does that mean that we continue?

[*Cries of "Yes!"*]

The Speaker [*continuing*]: All those in favor of continuing this presentation, say "aye"; opposed, "no." The "ayes" have it. We will continue with Mr. Dodd's remarks.

Mr. Dodd: I have read the Section the gentleman asked for. Are there any further questions?

I might say that I discussed that particular Section of the enabling act at some length in the Committee hearing in this room yesterday, and again I suggest that the very discussion of the Act and of that particular Section of the Act upon which I expressed my opinion yesterday illustrates the complexity of some of the problems that complicate this method of payment.

G. S. Fisher, M.D.: May I ask what it means in relation to Dr. Krieg's question? Secondly, I would like an answer to my question as to whether carriers can waive assignments. I am merely asking a question as far as the sense of the first part of this resolution is concerned, and whether it means anything.

Mr. Dodd: I shall answer your second question first. An assignment in proper form, I think, could not be disregarded by the carrier unless there were a provision to it contrary in the contract.

To answer your first question as to what the Section means that was just read. I can only give you my opinion, and yesterday when I expressed the same opinion in Committee I had at least one or two members of your profession who disagreed with my opinion.

In my opinion, the provision of the enabling act that has just been read, and which refers to the prohibition of payments of cash benefits by Blue Shield on account of death, illness or injury, does not prevent reimbursement by Blue Shield of the medical expense incurred by its subscriber as a result of illness, injury or death.

You may say that that is a fine distinction. It is one, gentlemen, that has been recognized by many courts in this country. In short, the prohibition, as I understand it, and as I believe it to have been intended in the enabling act, was to prevent Blue Shield or a medical service corporation from engaging in the health or accident or life insurance business.

In other words, the prohibition, in my judgment and in my opinion (and that may not be a unanimous opinion, but it is supported by many court decisions), is that it was intended to be a prohibition against this type of service organization entering into the health, accident or life insurance field.

The distinction that exists and which enables Blue Shield or a service corporation to make payments direct to its subscriber, under certain circumstances, is the distinction between a benefit that is accorded to the policyholder by reason of illness, injury or death, and the reimbursement to him of the expense (the cost) of securing medical attention, because that is what this contract insures to your subscriber. It gives to him, at the expense of Michigan Medical Service, medical services; and if he pays for that service out of his own pocket, the reimbursement of that cost is merely the thing that you have agreed to give him in the first place, namely, medical service. I hope that distinction is understandable.

J. B. Blodgett, M.D.: I would like to ask a question. Mr. Dodd, if this matter is so complex—this matter of the method of payment—why is it desirable that this change be made in the matter of payment before the matter has been studied? That is, the change in the method of payment is proposed. It has been going on for the last seventeen years. We need to study the matter. Why should it be made before we study the matter?

Mr. Dodd: I want to stress no opinion on the merits of the situation, but purely from the legal standpoint I am concerned with this point only:

Since the question has been raised, and since the question of participation or nonparticipation may be placed on that basis, I am concerned that the degree of participation necessary to the lawful continuance of these contracts may be affected by that question. That is the only extent to which, from a legal standpoint, I am concerned in this matter.

J. A. Witter, M.D.: I would like to ask Mr. Dodd if he doesn't honestly feel that the body which drew up the enabling act, had they intended that the word "benefit" would be so cruical, would rather have said in so many words that they meant for Michigan Medical Service not to participate in life, health, accident insurance, and so on.

Mr. Dodd: Dr. Witter, it would take me probably an hour. I have in my file here a rather complete brief that would answer that question, and I can tell you very briefly that the very converse of this thing is actually incorporated in the insurance acts under which insurance corporations are incorporated in this State.

Unless the interpretation that I here give to the benefits under this Act was the intention of the Legislature, then the intention of the Legislature in relation to insurance statutes, in a different sense, would be absolutely inconsistent with it.

Again, I don't want to beg the question nor seek to evade it; but in this very situation that you raise, Dr. Witter, are involved some of the most complex questions of statutory interpretation that you could find. Again, add to what I am saying here that perhaps my opinion here is not worthy of solid weight; but any hasty change in this contract, in the light of those very real questions, I should very much dislike to see done, because they are real, let me assure you. Whether I have the correct answer to them or not, they should be thoroughly explored.

J. A. Kasper, M.D.: There are certain parts of this resolution that refer to complexities. Would Mr. Dodd care to explain what some of those complexities are?

[*Cries of "No!"*]

Mr. Dodd: I have been doing my best to do just that thing, sir.

J. A. Kasper, M.D.: After all, we are speaking about complexities. We are talking in circles. There are complexities. What are the complexities?

Mr. Dodd: Dr. Witter just raised a very pertinent question that illustrates one of the great complexities of this thing.

You know, the enabling Act under which this organization is organized in the first place requires, by its terms, that every licensed doctor of medicine shall be entitled to enrollment in it. What a court might say with respect to the implications that arise under that permissive section, I don't know.

Where every doctor of medicine is entitled as a matter of right to enroll, and where the Act provides that he shall enroll, query: If he does not enroll, is there by implication a prohibition against his payment? I don't say there is; I say there is the question, and it is a nice question.

Louis Jaffe, M.D.: I would like to ask for clarification of one of the points. Mr. Dodd has repeatedly stated that this change in the contract might endanger

the entire contract. This particular phase that we are talking about is not a change. This phase exists now.

The only implication I can draw from this—and I would like to comment on this briefly—is that either it will be ruled that a higher percentage of doctors must participate than participate now, or the other implication is that he is seriously concerned that there will be very few participating as this thing stands if the payments are allowed to nonparticipating doctors.

If that is not the conclusion or implication, I would like to know it.

THE SPEAKER: The Speaker is going to rule that we allow Mr. Dodd to answer the question, and I believe it would be reasonable to suppose that this matter has now been gone into sufficiently for you to vote following his comment.

MR. DODD: The gentleman who asked the last question raises a very pertinent point that is a part of the complexity of this situation.

If you officially (by reason of ordering a change in this contract or otherwise) take the position that payments must be made that, if carried out, would affect participation in this contract, then necessarily you are raising questions that will endanger the validity of this contract because of the absolute necessity of its underwriters of being able to furnish that degree of participation which will prevent its being a fraud upon the public.

E. J. TALLANT, M.D.: A point of order, Mr. Speaker.

THE SPEAKER: What is your point of order?

E. J. TALLANT, M.D.: I would like to make an amendment to the motion.

I move that the phrase, "Medical Care Insurance Committee of the Michigan State Medical Society," be amended to read, "a special committee of the House of Delegates of the Michigan State Medical Society."

THE SPEAKER: Is that in the second "Resolved"?

E. J. TALLANT, M.D.: Yes, sir.

THE SPEAKER: About the sixth line?

E. J. TALLANT, M.D.: That is correct. I would like it to read, ". . . a special committee of the House of Delegates of the Michigan State Medical Society."

THE SPEAKER: You have heard the motion. Is there a second?

V. M. ZERBI, M.D.: I second the motion.

I would like to start the discussion on the amendment by requesting an explanation for the reason for asking for a new committee, when we have a Committee that has thoroughly studied the question for a very long time.

THE SPEAKER: Is there further discussion? All those in favor of the amendment, say "aye"; opposed, "no." The motion is lost.

Is there further discussion of the resolution presented by the Reference Committee?

V. M. ZERBI, M.D.: Up to now, the only delegates who have commented on the resolution have been those who are opposed to it. I regret that I lack the power to convey my feelings in the way I would like to do, but this afternoon the Executive Vice President of Blue Shield expressed certain truths in a committee hearing which I wish the whole House could have had the benefit of hearing, because I feel he hit the nail so squarely on the head that much of this debate here tonight would have been eliminated if all the members of the House had had an opportunity to hear him.

K. T. MCGUNEGLE, M.D.: I doubt very much whether we are looking for information. I therefore move the question.

[*Cries of "Support!"*]

THE SPEAKER: All those in favor of the recommendation of this Reference Committee that this substitute resolution be approved, say "aye"; opposed, "no." The motion is carried.

M. L. LICHTER, M.D.: The Reference Committee next considered four resolutions which pertain to the same subject matter.

XX—13(g). REPEAL OF STATEMENT OF PRINCIPLES COVERING BLUE SHIELD CONTRACTS (BATES). REPEAL OF STATEMENT OF PRINCIPLES COVERING BLUE SHIELD CONTRACTS (RICE). TERMINATION OF SALE OF BLUE SHIELD'S M-75 CONTRACT (MILLER). SUSPENSION OF SALE OF BLUE SHIELD'S M-75 CONTRACT (POWER)

THE SPEAKER: If there is no objection I will ask Dr. Lichter to discuss these four together.

M. L. LICHTER, M.D.: The Reference Committee carefully considered each of these resolutions, and recommends that no action be taken on them. I so move.

R. W. TEED, M.D.: Second the motion.

R. R. COOPER, M.D.: I would like to move a substitute resolution.

"Whereas, a significant degree of dissatisfaction among doctors of medicine has arisen since the M-75 contract has been made public, and

"Whereas, the major features of M-75 which arouse controversy concern:

"1. The method of payment of professional fees to nonparticipating physicians.

"2. The new income limit for service benefits.

"3. The uniform scale of fees which ignores the value of unusual training and experience.

"4. The change in method of determining subscriber income for contract purposes.

"5. The extension of benefits to include laboratory, diagnostic and therapeutic radiologic procedures without adequate control of proper usage.

"6. The fees paid for individual service; and

"Whereas, the M-75 contract is a reflection of the commitments made by The Council of the Michigan State Medical Society in its 'principles to be embodied in insurance contracts' under authority granted by vote of the House of Delegates, September, 1957, and

"Whereas, it is firmly believed that the interests of the public and the medical profession will suffer severely unless the present controversies are mediated; therefore, be it

"RESOLVED: That the House of Delegates request the Michigan Medical Service while honoring present contracts to withhold the issuance of any more M-75 contracts beyond those already offered until further study is carried on: and be it further

"RESOLVED: That the House of Delegates create a special committee to re-examine forthwith the statement of principles governing insurance contracts, and the M-75 contract itself in the light of the known major points at issue; and be it further

"RESOLVED: That the special committee report in full its deliberations and recommendations for change; and be it further

"RESOLVED: That the Speaker of the House of Delegates be instructed to call a special session of the House of Delegates in March of 1959 or before, if feasible, to hear a full report from the special committee on its re-examination and recommendations for change in the aforementioned principles and contract."

THE SPEAKER: Dr. Cooper, may I ask in what respect your resolution differs from the four resolutions that are being considered at this time?

R. R. COOPER, M.D.: I think mainly, Mr. Speaker, in that this does not ask us to rescind, retract or expunge anything that has been done. That is the first point.

In the No. 3 and No. 10 resolutions the first "Re-

solved" has been omitted completely. The second "Resolved" has been modified so that it would not affect any contract that has been sold; those would be honored. It does not affect in any way any legitimate offering for sale that has been made. Those offers have been taken up to form a contract, as I understand it, and we should not go back on them in any way.

We are not asking for repudiation of the principles passed last year; we are just saying that a controversy exists. I think none of us can deny that while obviously we are in the minority, we have a right to feel differently, and I think that right is worthy of consideration by the Committee in democratic process.

We are trying to bring this up in a manner that will not change anything that has been done, and that will not make us lose face in our commitment, but that will still give us an opportunity to discuss some of the points that are making some of the doctors in the southeastern counties unhappy.

THE SPEAKER: Thank you, Dr. Cooper. This is offered as a substitute resolution to the substitute offered by the Reference Committee to the four resolutions that were introduced in the House.

D. N. SWEENY, M.D.: I second Dr. Cooper's substitute resolution.

THE SPEAKER: Is there discussion of this substitute resolution?

D. J. FRYFOGLE, M.D.: There is one thing in this that I would like to see come to pass, and that is that a new committee be created to study the grievances of the men who are so distraught by what is happening to them. I don't mean to upset the well-laid plans of those who are directing the project, but I think a committee of the House would be good.

As delegates perhaps we have been remiss in not knowing. If it were a committee of the House, made up of delegates to report to the House of Delegates, not to The Council, then I think I would have a much better chance of understanding what the situation is, and thus informing my constituents, who want to know very badly what the situation is.

M. L. LICHTER, M.D.: There is in the Principles a considerable amount of opportunity for discussion of any differences in points of view with the action this House took last year. In the Principles there is spelled out, first, the formation of a committee—the Medical Care Insurance Committee—with its responsibilities carefully delineated therein. Second, there is spelled out the existence of medical care insurance committees in the councilor districts.

The modus operandi of these committees has been carefully developed and considered by The Council of this Society, and approved by them. This provides something that was lacking in the past, namely, the opportunity for every doctor who is a member of this Society to make known his point of view and to receive an answer to anything that troubles him in connection with medical care insurance.

His point of view in this mechanism can be carried first to the councilor district medical care insurance committee, next to the Medical Care Insurance Committee, then to The Council of the Michigan State Medical Society, and finally to this House of Delegates.

In addition, the Permanent Advisory Committee on Fees of this House of Delegates must examine all matters pertaining to fees, co-ordinating and integrating them before they can be finally adopted. In addition, at its September 1958 meeting The Council approved the method by which this Society will develop its own relative value scale. This will not be done by taking existing scales and simply modifying them. This will be done by conducting a survey in which every doctor of medicine belonging to this State Society will be able to express his ideas.

In addition, representatives from every specialty society in this State and the Michigan Academy of General Practice will be requested to send a representative to the committee which is to be charged with this responsibility, with the stipulation that this representative be chairman of that society's fee committee, so that with his own group he can take up matters of relative values and fees and can transmit those wishes, desires and decisions to the committee so that they may then be properly incorporated into a relative value schedule that will represent all the doctors of Michigan.

I feel that the intent of Dr. Cooper's substitute resolution has already been accomplished, and that any further effort to establish a study committee or study committees would be redundant.

F. L. TROOST, M.D. [Ingham]: Earlier this evening Dr. Leader was greatly concerned that I had been silent about this matter. I will now relieve him.

I see glaring weaknesses in Dr. Cooper's substitute resolution. In it he states that there is no intent to disturb the contracts already sold or offered.

Can we, as a group, sell the Ford Motor Company and possibly General Motors and Chrysler people those contracts and then smaller employers come along and say, "Our people want to come in" and we would have to say "No"?

Dr. Cooper, if he wanted to do that, should have set a deadline on such things.

One year ago, as you all know, we promised a package, and we promised to deliver it now. Two days ago I read in the paper about the death of Robert Service, the poet. A line from his "Tales of the Yukon" comes to mind, and I think we should bear it in mind. Robert Service said: "A promise made is a debt unpaid." [*Applause*]

R. H. PINO, M.D. [Wayne]: I want to ask a question regarding Dr. Cooper's motion. If we were to delay (as he has asked us to do) accepting contracts that have been signed, wouldn't it cut out General Motors and Chrysler entirely? What are they going to do in the meantime? Or, what are we going to do? Is someone else going to take up that insurance? What would it do to us if we can't offer it to all industry?

R. R. COOPER, M.D.: I admit there are glaring weaknesses in the resolution. I think there are weaknesses in others, too.

In answer to Dr. Troost's question, I might say it is my understanding that Mr. Ketcham said there were three times when Blue Shield did not offer their contracts for sale, and then they were resumed again. So, we are not without precedent.

It would not affect the sales to General Motors and Chrysler, as I understand it, because they have been offered, and it is specifically stated in there that any offer made would be honored just as any one that had been sold.

I realize that all these things were nicely laid out by Dr. Lichter, and I couldn't repeat them if I wanted to. The means are there for individuals to carry out their grievances, which I know legally would not go to the Supreme Court first, but the House of Delegates is the final authority, and I think we can by-pass those on some of the grievances that have been so many times verbalized.

I think in fairness to perhaps one-third of the number of members of this House who at least have signified their interest in this type of thing, it is worth consideration.

I don't know poetry, but I do remember a phrase, "They listen and hear not." I am afraid a little bit that if all our talk yesterday afternoon and today results in the recommendation that there should be nothing done about it, and no action taken, that phrase might apply slightly.

I realize the position of the Reference Committee. I think they are doing a fine job; but I still would like to see consideration given to the complaints that we have voiced.

THE SPEAKER: The question is called for. I don't want to interrupt anything; but, as I said earlier, this whole matter has been given plenty of time. Dr. Cooper has offered a substitute resolution. Are you ready to vote on his substitute resolution? All those in favor of Dr. Cooper's substitute resolution, say "aye": opposed, "no." The motion is lost.

R. R. COOPER, M.D.: I request a division.

THE SPEAKER: Do you wish a hand vote?

R. R. COOPER, M.D.: A standing vote.

THE SPEAKER: The Chair will rule that your motion is lost. Do you still want a standing vote?

R. R. COOPER, M.D.: I have requested a division, sir, which I believe is in order.

THE SPEAKER: All those in favor of Dr. Cooper's resolution, please stand. All those opposed, please stand. The vote is 32 for the resolution and 65 against. The motion is lost. There are some who did not vote.

Now, we shall return to the substitute resolution presented by the Reference Committee, which is that there be no action taken on the four resolutions. Is there discussion of this motion?

J. D. FRYFOGLE, M.D.: I hesitate to go back with no action taken on a subject that is very important to the very people who are going to be the front-line leaders in the execution of the services offered by M-75.

It is true throughout the State that we do have different kinds of work; but sitting in Wayne County and in the counties closely allied with the same type of service that is put out in Wayne County, these are the men for whom the greatest amount of service for M-75 is going to be given. I hate to go back to them and say that no action is to be taken on their polled opinion.

Therefore, because we delegates must answer directly to the people who are servicing this contract, I move, Mr. Speaker, that information be given quarterly to every delegate as to the progress made by the already existing mechanisms for review and inspection, as Dr. Lichter has so nicely outlined.

THE SPEAKER: Dr. Fryfogle, I will rule that your motion is out of order at this moment because we already have a motion on the floor.

J. D. FRYFOGLE, M.D.: Can't I amend it?

THE SPEAKER: You may make your motion later. I say it is out of order only in context.

J. D. FRYFOGLE, M.D.: May I ask the Parliamentarian.

THE SPEAKER: If you wish to make an amendment to this resolution, or in some way change it or offer a substitute, you may; but I don't think as it stands now it is in order. My point is that your objection is to the recommendation of the Reference Committee that no action be taken. I don't think you have offered a proper motion covering what you want done.

J. D. FRYFOGLE, M.D.: I don't want "no action" to be voted. May I make this as an amendment, then?

THE SPEAKER: You can make a substitute motion if you wish.

J. D. FRYFOGLE, M.D.: Then may I reword it and make it as a substitute motion?

THE SPEAKER: No; you have got to do more than you did.

G. C. WILSON, M.D.: I believe Dr. Fryfogle's question was how to face his constituents. The "Resolved" in this resolution—the one which does not involve the integrity of the House of Delegates—falls into two categories. The main one is the action of payment for nonparticipating physicians. That has already been handled pretty adequately in resolution No. 8 and has already been acted upon here. All the other "Resolveds" have been adequately acted on, and he can answer his constituents by saying that they could not be answered because of the integrity of the House of Delegates and the Michigan State Medical Society.

J. W. RICE, M.D.: I still do not see how concretely we are going to reconcile the differences of the members of the State Medical Society—and there definitely are differences. There are bitter differences. I don't see how this committee that Dr. Lichter talks about, that would examine the fees, is going to do this unless we understand exactly at what time they are going to meet—which should be as soon as possible.

Could Dr. Lichter explain just a little more fully how these differences are going to be reconciled, and when an attempt will be made to do it?

S. L. LOUPEE, M.D.: I call for a point of order. There is a motion before the House. All this discussion is inappropriate; it is not proper. The time to vote is here. I would like to vote.

THE SPEAKER: I have already stated that I feel we must now decide on the recommendation of the Reference Committee about this matter of no action. If you have a substitute motion that you wish to present, present it; but all this other stuff is immaterial to the question at the moment.

The question is called for. The motion is to sustain the action of the Reference Committee, that no action on the four resolutions that I mentioned be taken. All those in favor, say "aye"; opposed, "no." We will have a standing vote.

All those in favor of the recommendation that no action be taken on these four resolutions, please stand. All those opposed, please stand. The vote is 66 to 35. The motion is carried.

XV—39. MOTION: INFORMATION TO DELEGATES QUARTERLY ON PROGRESS IN BLUE SHIELD'S PROGRAMS

J. D. FRYFOGLE, M.D.: Now I propose that **the delegates be informed quarterly of the progress made by the mechanism set up and in operation for the instrumentation of the program.**

Is that an adequate motion?

THE SPEAKER: I think you should include who will inform the delegates. Should it be The Council?

J. D. FRYFOGLE, M.D.: The Council is actually the only working body in the interim, isn't it? Yes; then I will *add that it come from The Council.*

D. N. SWEENY, M.D.: Second the motion.

S. L. LOUPEE, M.D.: This motion is practically impossible of implementation. It is going to require a lot of work which will get no results. There has been no explanation as to what was expected to be accomplished by such a resolution and such a demand on the part of this House by the men in executive authority. I am opposed to the motion.

J. W. RICE, M.D.: May I ask Dr. Lichter right now how he anticipates reconciling the differences of the various members of this State Society?

M. L. LICHTER, M.D.: I can only say that the mechanism which I described earlier is for the purpose of permitting consideration of each and every viewpoint that may be presented. Whether this is satisfactory to you, sir, I don't know, but it has been the intent that every doctor in this Society has an opportunity to be

heard and answered and to receive serious consideration of his viewpoint.

I would point out that we represent an entire State Medical Society.

J. W. Rice, M.D.: Who is to initiate the action?

M. L. Lichter, M.D.: Each physician member of this Society will have the right to initiate action. There are means to be established (they have been approved) to see that none of these initiated things are lost sight of, because there is to be engaged a secretary to the Medical Care Insurance Committee who will also serve as the secretary of the medical care insurance committees in the councilor districts. This was necessary because we physicians, preoccupied with so many other things, might put off getting around to giving consideration to the requests and points of view of our fellow physicians. Therefore, the method has been devised to be darned sure that none of these things is lost, and that every man will have an opportunity to be heard and will be answered.

J. W. Rice, M.D.: To preserve unanimity of this State Society I think it is essential that this be done.

I would like to amend Dr. Fryfogle's motion **that the Councilor from each district impart to the delegates who serve in his district at periodic intervals specified in the original motion. That the delegates meet with the councilor at the specified intervals, and that the delegates in that district go back to their constituent county societies and explain what has happened.**

The Speaker: This is in the form of an amendment to Dr. Fryfogle's motion.

J. A. Kasper, M.D.: I second that.

The Speaker: Is there any discussion on the amendment? Are you ready for the question? All those in favor, say "aye"; opposed, "no." The motion is carried.

Dr. Fryfogle's motion is now before you as amended. It is to the effect that the delegates of this House be informed quarterly as to the progress that is being made in relation to the new—how did you say it?

J. D. Fryfogle, M.D.: I ran afoul there, too. I suppose it is in relation to what is being done to solidify the Society.

[*Cries of "No!"*]

[*Dr. Fryfogle's motion was read.*]

J. D. Fryfogle, M.D.: May I make that as a motion? I so move.

The Speaker: Before we vote on this, would you consider that the amendment that it be handled by the councilors would take care of the mechanism?

J. D. Fryfogle, M.D.: The House has already said that that is the method by which they want the information transmitted. I have no objection, as long as each delegate is informed.

The Speaker: Okay; I think we are clear. The motion is that the delegates shall be informed quarterly of the progress made in relation to the mechanism that is set up to implement—somebody else restate it, will you?

W. W. Babcock, M.D.: We are all tired, but I would like to point out that Dr. Fryfogle's motion was that letters (that was his intent) be sent to the delegates. If the amendment is followed out, in some of our councilor districts the doctors are many, many miles apart, and it would be almost impossible to get the various delegates together from a practical standpoint and give them information quarterly.

Because of that feature, I also feel that Dr. Fryfogle's motion should be passed so that the delegates, if the councilor were unable to meet with them, could be informed by mail.

The Speaker: I believe this motion should be much more explicit than it is.

G. S. Fisher, M.D.: Soon after the meeting of the House of Delegates, in many dining rooms around hospitals in Detroit, at least, and in waiting rooms and other places, groups of doctors were talking at length about participation and nonparticipation, about fee schedules, about equities and inequities. What is amazing to me is that, as far as I have been able to determine, none of this ever filtered up. It is important as well that these things filter up as well as down.

It seems to me that somehow or other many of us have been amiss in not informing others, by letters to our councilors or what-have-you, of our own impressions of this situation. Maybe we are amiss. I am sure from now on we are not going to be that way.

The Speaker: The only motion that I have in mind at the present moment is "that the delegates be informed quarterly through The Council of the progress made in relation to the mechanism set up for the instrumentation of the program."

W. W. Babcock, M.D.: That was an amendment to Dr. Fryfogle's motion.

The Speaker: The amendment was that it be done through the councilors.

W. W. Babcock, M.D.: You're right.

E. G. M. Krieg, M.D.: May I clarify this? I think it could be done easily through the Secretary's Letter which is sent out every month, instead of in a separate communication.

The Speaker: That Letter goes to everybody. What seems to be important here is that the delegates be informed. The question is called for. All those in favor, say "aye"; opposed, "no." The motion is carried.

XX—13(h). TWO RESOLUTIONS: TWO-THIRDS MEMBERSHIP VOTE SHALL CONSTITUTE FAVORABLE REFERENDUM; AND REAFFIRMING STATEMENT OF PRINCIPLES OF 1957 HOUSE OF DELEGATES

M. L. Lichter, M.D.: There are a few more resolutions which were considered by the Reference Committee. If I may, I would like to read the "Resolved" in resolution No. 33:

"RESOLVED: That the agreements on principle made by the 1957 House of Delegates be reaffirmed, and that any changes in the action taken upon those agreements on principle be made within the framework of representative government as established."

The Reference Committee carefully considered this resolution and also resolution No. 1, and recommends no action. I so move.

R. W. Teed, M.D.: Support.

The Speaker: The motion is that no action be taken on resolutions No. 1 and No. 33. Is there discussion?

[*The motion was put to a vote and was carried unanimously.*]

M. L. Lichter, M.D.: The Reference Committee wishes to thank the members of the House for their patience with us. We apologize for having been the instrument which kept you so late.

I now move the acceptance of the report of the Reference Committee on Medical Service and Prepayment Insurance as a whole.

[*The motion was severally seconded, was put to a vote and was carried unanimously.*]

The Speaker: I would like to announce that the stenographic staff is compiling a résumé of all actions taken by this House on the resolutions introduced. It is very difficult to predict at what time tomorrow the copies will be available, but they will be available to you in the press room of this hotel, Room 500.

XXIII. ADJOURNMENT

D. N. Sweeny, M.D.: I move we adjourn.

[*The motion was severally seconded, was put to a vote, and was carried unanimously.*]

[*The meeting adjourned sine die at 1 a.m.*]

IBRARY
Founded 1813
OCT 16 '59
DICINE

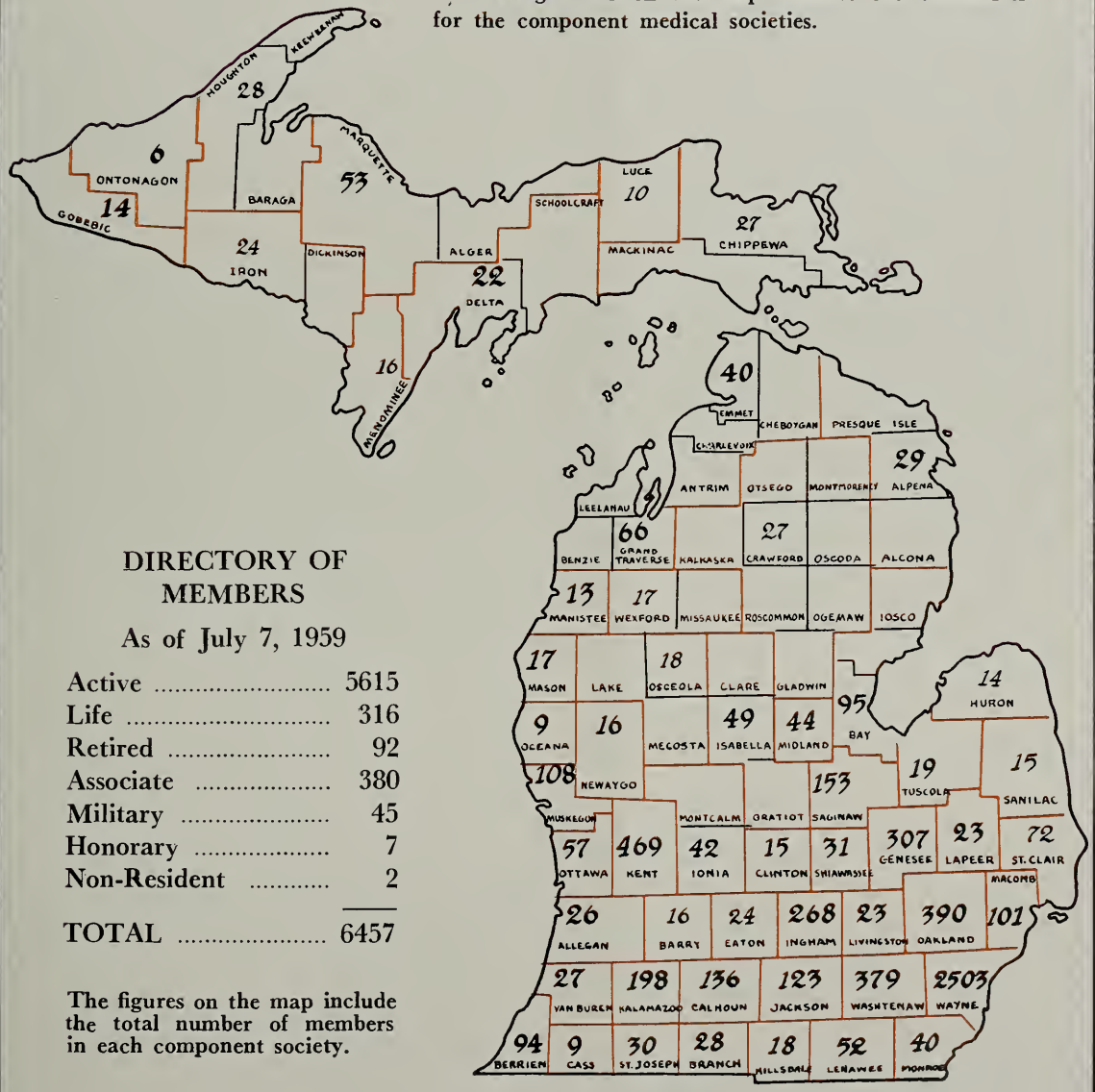
The Journal
Michigan
STATE MEDICAL SOCIETY

September, 1959
Volume 58
Number 9

(This number is composed of two sections, of which this is Section 2)

Directory of Members—1959

The orange lines on the map indicate the boundaries for the component medical societies.



DIRECTORY OF MEMBERS

As of July 7, 1959

Active	5615
Life	316
Retired	92
Associate	380
Military	45
Honorary	7
Non-Resident	2
TOTAL	6457

The figures on the map include the total number of members in each component society.

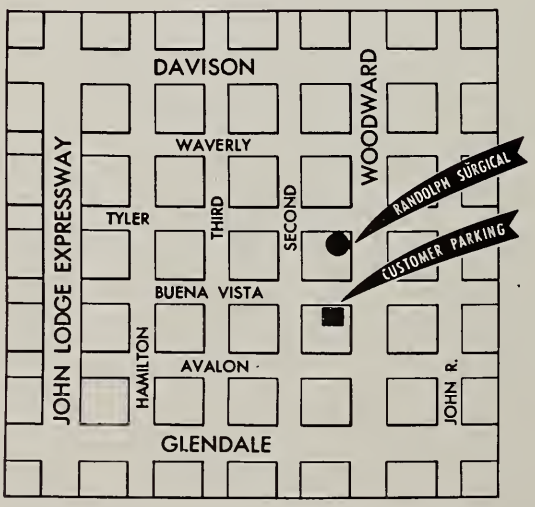


To Serve You Better

NOW IN OUR NEW HEADQUARTERS
13121 WOODWARD AVENUE

Convenient — Complete
Ample Free Parking

Please drop in and give our improved facilities your personal inspection—new Telephone Number: Townsend 9-7000.



EASY TO REACH FROM ANY AREA IN DETROIT

Randolph Surgical
SUPPLY CO.

PHYSICIANS & HOSPITALS SUPPLIES
13121 WOODWARD AVENUE
DETROIT 3, MICHIGAN
TOWNSEND 9-7000

CONTENTS

This MSMS Directory reports the membership of each component medical society. However, all the counties are listed below in an effort to make the Index serve more effectively as a ready reference.

MSMS Membership by Counties

Alcona County (Alpena-Alcona-Presque Isle) 5
Alger County (Marquette-Alger) 24
Allegan County 5
Alpena County (Alpena-Alcona-Presque Isle) 5
Antrim (Northern Michigan) 27
Arenac (Bay-Arenac-Iosco) 5

Baraga County (Houghton-Baraga-Keweenaw) 13
Barry County 5
Bay County (Bay-Arenac-Iosco) 5
Benzie County (Grand Traverse-Leelanau-Benzie) 12
Berrien County 6
Branch County 7

Calhoun County 7
Cass County 8
Charlevoix County (Northern Michigan) 27
Cheboygan County (Northern Michigan) 27
Chippewa County (Chippewa-Mackinac) 8
Clare County (Gratiot-Isabella-Clare) 12
Clinton County 9
Crawford County (North Central) 26

Delta County (Delta-Schoolcraft) 9
Dickinson County (Dickinson-Iron) 9

Eaton County 9
Emmet County (Northern Michigan) 27

Genesee County 9
Gladwin County (North Central) 26
Gogebic County 12
Grand Traverse County (Grand Traverse-Leelanau-Benzie) 12
Gratiot County (Gratiot-Isabella-Clare) 12

Hillsdale County 13
Houghton County (Houghton-Baraga-Keweenaw) 13
Huron County 13

Ingham County 13
Ionia County (Ionia-Montcalm) 15
Iosco County (Bay-Arenac-Iosco) 5
Iron County (Dickinson-Iron) 9
Isabella County (Gratiot-Isabella-Clare) 12

Jackson County 15

Kalamazoo County 16
Kalkaska County (North Central) 26
Kent County 18
Keweenaw County (Houghton-Baraga-Keweenaw) 13

Lake Coupnty (Mecosta-Osceola-Lake) 24
Lapeer County 22
Leelanau County (Grand Traverse-Leelanau- Benzie) 12
Lewawee County 22
Livingston County 23
Luce County 23

Mackinac County (Chippewa-Mackinac) 8
Macomb County 23
Manistee County 24
Marquette County (Marquette-Alger) 24
Mason County 24
Mecosta County (Mecosta-Osceola-Lake) 24
Menominee County 25
Midland County 25
Missaukee County (Wexford-Missaukee) 54
Monroe County 25
Montcalm County (Ionia-Montcalm) 15
Montmorency County (North Central) 26
Muskegon County 25

Newaygo County 26
North Central Counties (Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw-Gladwin-Kalkaska) 26
Northern Michigan Counties (Antrim-Charlevoix-Cheboygan-Emmet) 27

Oakland County 27
Oceana County 30
Ogemaw County (North Central) 26
Ontonagon County 30
Osceola County (Mecosta-Osceola-Lake) 24
Oscoda County (North Central) 26
Otsego County (North Central) 26
Ottawa County 30

Presque Isle County (Alpena-Alcona-Presque Isle) 5

Roscommon County (North Central) 26

Saginaw County 30
St. Clair County 31
St. Joseph County 32
Sanilac County 32
Schoolcraft County (Delta-Schoolcraft) 9
Shiawassee County 32

Tuscola County 33

Van Buren County 33

Washtenaw County 33
Wayne County 36
Wexford County (Wexford-Missaukee) 54

Honorary Members 54

Women's Organizations

Woman's Auxiliary 55
Michigan State Medical Assistants' Society 83

MSMS Constitution and By-Laws

Constitution 99
By-Laws 100

Guide to Help Locate Cities within the Counties

This guide matches up the counties for all Michigan communities of 1,000 population or more.

CITY and COUNTY	*PAGE*
Adrian (Lenawee)	22
Albion (Calhoun)	7
Algonac (St. Clair)	31
Allegan (Allegan)	5
Alma (Gratiot)	12
Almont (Lapeer)	22
Alpena (Alpena)	5
Ann Arbor (Washtenaw)	33
Bad Axe (Huron)	13
Bangor (Van Buren)	33
Battle Creek (Calhoun)	7
Bay City (Bay)	5
Belding (Ionia)	15
Belleville (Wayne)	36
Bellevue (Eaton)	9
Benton Harbor (Berrien)	6
Berkley (Oakland)	27
Berrien Springs (Berrien)	6
Bessemer (Gogebic)	12
Big Rapids (Mecosta)	24
Birmingham (Oakland)	27
Blissfield (Lenawee)	22
Bloomfield Hills (Oakland)	28
Boyne City (Charlevoix)	27
Brighton (Livingston)	23
Bronson (Branch)	7
Brookline (Jackson)	15
Buchanan (Berrien)	6
Cadillac (Wexford)	54
Calumet (Houghton)	13
Capac (St. Clair)	32
Carleton (Monroe)	25
Caro (Tuscola)	33
Carson City (Montcalm)	15
Cass City (Tuscola)	33
Cassopolis (Cass)	8
Cedar Springs (Kent)	21
Center Line (Macomb)	23
Charlevoix (Charlevoix)	27
Charlotte (Eaton)	9
Cheboygan (Cheboygan)	27
Chelsea (Washtenaw)	33
Chesaning (Saginaw)	31
Clare (Clare)	12
Clawson (Oakland)	29
Clinton (Lenawee)	22
Clio (Genesee)	9
Coldwater (Branch)	7
Coloma (Berrien)	6
Colon (St. Joseph)	32
Constantine (St. Joseph)	32
Coopersville (Kent)	22
Corunna (Shiawassee)	33
Croswell (Sanilac)	32
Davison (Genesee)	10
Dearborn (Wayne)	36
Decatur (Van Buren)	33
Detroit (Wayne)	36
Dexter (Washtenaw)	34
Dowagiac (Cass)	8
Dundee (Monroe)	25
Durand (Shiawassee)	32
East Ann Arbor (Washtenaw)	33
East Detroit (Macomb)	23
East Grand Rapids (Kent)	18
East Jordan (Charlevoix)	27
East Lansing (Ingham)	14
East Tawas (Iosco)	5
Eaton Rapids (Eaton)	9
Ecorse (Wayne)	40
Escanaba (Delta)	9
Essexville (Bay)	6
Evart (Osceola)	24
Farmington (Oakland)	27
Fenton (Genesee)	10
Ferndale (Oakland)	27
Flat Rock (Wayne)	39
Flint (Genesee)	9
Flushing (Genesee)	9
Fowlerville (Livingston)	23
Frankenmuth (Saginaw)	30
Frankfort (Benzie)	12
Fraser (Macomb)	23
Fremont (Newaygo)	26
Galesburg (Kalamazoo)	16
Garden City (Wayne)	37
Gaylord (Otsego)	26
Gladstone (Delta)	9
Gladwin (Gladwin)	26
Grand Haven (Ottawa)	30
Grand Ledge (Eaton)	9
Grand Rapids (Kent)	18
Grandville (Kent)	18
Grayling (Crawford)	26
Greenville (Montcalm)	15
Grosse Pointe (Wayne)	36
Grosse Pointe Farms (Wayne)	39
Grosse Pointe Park (Wayne)	40

CITY and COUNTY	PAGE
Grosse Pointe Shores (Wayne & Macomb)	44
Grosse Pointe Woods (Wayne & Macomb)	24, 36
Hamtramck (Wayne)	36
Hancock (Houghton)	13
Harbor Beach (Huron)	13
Harbor Springs (Emmet)	27
Hart (Oceana)	30
Hartford (Van Buren)	33
Hastings (Barry)	5
Hazel Park (Oakland)	27
Highland Park (Wayne)	37
Hillsdale (Hillsdale)	13
Holland (Ottawa)	30
Holly (Oakland)	10
Homer (Calhoun)	7
Houghton (Houghton)	13
Howell (Livingston)	23
Hubbell (Houghton)	13
Hudson (Lenawee)	22
Hudsonville (Ottawa)	30
Huntington Woods (Oakland)	27
Imlay City (Lapeer)	22
Inkster (Wayne)	41
Ionia (Ionia)	15
Iron Mountain (Dickinson)	9
Iron River (Iron)	9
Ironwood (Gogebic)	12
Ishpeming (Marquette)	24
Ithaca (Gratiot)	12
Jackson (Jackson)	15
Jonesville (Hillsdale)	13
Kalamazoo (Kalamazoo)	16
Kalkaska (Kalkaska)	12
Kingsford (Dickinson)	9
Lake Linden (Houghton)	13
Lake Odessa (Ionia)	15
Lake Orion (Oakland)	27
Lakeview (Calhoun)	15
L'Anse (Baraga)	13
Lansing (Ingham)	13
Lapeer (Lapeer)	22
Laurium (Houghton)	13
Lawton (Van Buren)	33
Leslie (Ingham)	14
Lincoln Park (Wayne)	37
Livonia (Wayne)	36
Ludington (Mason)	24
Mancelona (Antrim)	27
Manchester (Washtenaw)	35
Manistee (Manistee)	24
Manistique (Schoolcraft)	9
Manton (Wexford)	54
Marcellus (Cass)	8
Marine City (St. Clair)	31
Marlette (Sanilac)	32
Marquette (Marquette)	24
Marshall (Calhoun)	7
Marysville (St. Clair)	32
Mason (Ingham)	13
Melvindale (Wayne)	45
Menominee (Menominee)	25
Michigan Center (Jackson)	16
Middleville (Barry)	5
Midland (Midland)	25
Milan (Monroe & Washtenaw)	34
Milford (Oakland)	28
Millington (Tuscola)	33
Monroe (Monroe)	25
Montague (Muskegon)	25
Morenci (Lenawee)	22
Mount Clemens (Macomb)	23
Mount Morris (Genesee)	9
Mount Pleasant (Isabella)	12
Munising (Alger)	24
Muskegon (Muskegon)	25
Muskegon Heights (Muskegon)	25
Nashville (Barry)	5
Negaunee (Marquette)	24
Newaygo (Newaygo)	26
New Baltimore (Macomb & St. Clair)	23
Newberry (Luce)	23
New Buffalo (Berrien)	6
Niles (Berrien)	6
North Muskegon (Muskegon)	25
Northville (Wayne & Oakland)	36
Norway (Dickinson)	9
Oak Park (Oakland)	28
Onaway (Presque Isle)	5
Ontonagon (Ontonagon)	30
Otsego (Allegan)	5
Ovid (Clinton)	9
Owosso (Shiawassee)	32
Oxford (Oakland)	27
Painesdale (Houghton)	13
Parchment (Kalamazoo)	16
Paw Paw (Van Buren)	33
Pentwater (Oceana)	30
Perry (Shiawassee)	32
Petersburg (Monroe)	25
Petoskey (Emmet)	27
Pigeon (Huron)	13
Pinconning (Bay)	6
Plainwell (Allegan)	5
Pleasant Ridge (Oakland)	27
Plymouth (Wayne)	50
Pontiac (Oakland)	27
Port Huron (St. Clair)	31
Portland (Ionia)	15

CITY and COUNTY	PAGE
Quincy (Branch)	7
Reading (Hillsdale)	13
Reed City (Osceola)	24
Richmond (Macomb)	23
River Rouge (Wayne)	38
Riverview (Wayne)	36
Rochester (Oakland)	28
Rockford (Kent)	18
Rockwood (Wayne)	47
Rogers City (Preque Isle)	5
Romeo (Macomb)	23
Roseville (Macomb)	23
Royal Oak (Oakland)	27
Saginaw (Saginaw)	30
Saint Clair (St. Clair)	31
Saint Clair Shores (Macomb)	23
Saint Ignace (Mackinac)	8
Saint Johns (Clinton)	9
Saint Joseph (Berrien)	6
Saint Louis (Gratiot)	12
Saline (Washtenaw)	34
Sandusky (Sanilac)	32
Saugetuck (Allegan)	5
Sault Sainte Marie (Chippewa)	8
Schoolcraft (Kalamazoo)	17
Scottville (Mason)	24
Sebewaing (Huron)	13
Shelby (Oceana)	30
Southfield (Wayne)	36
South Haven (Van Buren)	33
South Lyon (Oakland)	7
Sparta (Kent)	18
Spring Lake (Ottawa)	30
Stambaugh (Iron)	9
Standish (Arenac)	6
Stanton (Montcalm)	15
Stockbridge (Ingham)	15
Sturgis (St. Joseph)	32
Sylvan Lake (Oakland)	27
Tawas City (Iosco)	5
Tecumseh (Lenawee)	22
Three Rivers (St. Joseph)	32
Traverse City (Grand Traverse)	12
Trenton (Wayne)	37
Union City (Branch & Calhoun)	7
Utica (Macomb)	23
Vandercook Lake (Jackson)	16
Van Dyke (Macomb)	23
Vassar (Tuscola)	33
Vicksburg (Kalamazoo)	16
Wakefield (Gogebic)	1
Walled Lake (Oakland)	2
Warren (Macomb)	2
Watervliet (Berrien)	
Wayland (Allegan)	
Wayne (Wayne)	3
West Branch (Ogemaw)	2
Whitehall (Muskegon)	2
White Pigeon (St. Joseph)	3
Wyandotte (Wayne)	3
Wyoming (Kent)	1
Yale (St. Clair)	
Ypsilanti (Washtenaw)	
Zeeland (Ottawa)	

Michigan State Medical Society

Directory of Members, 1959

Listed by Component Medical Societies

(Special Memberships are indicated as follows: "E" for Emeritus Members; "L" for Life Members; "R" for Retired Members; "A" for Associate Members; "M" for Military Members; all others are Active Members.)

ALLEGAN COUNTY MEDICAL SOCIETY

Brachman, A. Peter, Jr.....222 Trowbridge St., Allegan
Brown, Lewis F.....133 E. Allegan St., Otsego
Burt, Emma G.....Allegan Co. Health Dept., Allegan
Chase, Walter E. (A).....890 Riverview Rd., Plainwell
Clark, James I.....Box B, Fennville
De Witt, Donald E.....160 Taylor, Saugatuck
Dickinson, Clyde A.....Wayland
Everett, D. W.....Plainwell Sanitarium, Plainwell
Goddard, G. B.....218 E. Orleans, Otsego
Goude, Albert G. (A).....Hopkins
Hays, James D.....Saugatuck
Johnson, Elwin B.....144 Brady St., Allegan
Johnson, Harrison H. (L).....Wayland
Keeler, Van O.....Otsego
Kromer, Robt. A.....Wayland
Mahan, James E.....402 Trowbridge St., Allegan
Medill, Wilbur C.....139 N. Main St., Plainwell
Miller, Kenneth C.....Saugatuck
Pone, Janis.....Martin
Ramseyer, Gladwin E.....130 N. Main St., Plainwell
Schneiter, Harry E.....111 Locust St., Allegan
Topp, Elwin W.....502 N. Main St., Plainwell
Van Der Kolk, Bert.....Hopkins
Vaughan, Willard R.....Plainwell
Wiseman, Bertha A.....Box 177, Allegan

ALPENA-ALCONA-PRESQUE ISLE COUNTY MEDICAL SOCIETY

Arscott, Edward F.....Rogers City
Brown, Donald C.....312 E. Chisholm St., Alpena
Bunting, John W.....110 N. 1st Ave., Alpena
Burkholder, H. J. (L).....122 N. Second Ave., Alpena
Cohn, Stuart L.....1253 W. Washington, Alpena
Constantine, Aeneas.....Harrisville
Finch, Donald E.....Onaway
Foley, Arthur L.....Rogers City
Henderson, D. G.....Alpena General Hosp., Alpena
Hier, Edward A.....125 N. Second Ave., Alpena
Jackson, Wm. F.....Rogers City
Kessler, Harold.....312 E. Chisholm St., Alpena
Kutsche, W. F.....208 Lake St., Oscoda
Leopard, J. M.....312 E. Chisholm, Alpena
Lipski, John G.....Posen
Nesbitt, Wm. E.....123 N. 2nd Ave., Alpena
Nesper, Thomas E.....Professional Bldg., Alpena
O'Dell, F. C., Jr.....110 W. Chisholm St., Alpena
O'Donnell, Francis J.....153 State St., Alpena
Parmenter, Elbert S.....Box 192, Alpena
Py, Raymond J.....115 N. First St., Alpena
Ramsey, J. Allen.....509 S. Second Ave., Alpena
Ries, Robt. C.....Rogers City
Riker, John L.....126 Hitchcock Ave., Alpena
Rowell, Wilfred J.....Alpena Gen. Hosp., Alpena
Spens, James E.....123 N. Second Ave., Alpena
Wagoner, Darwin E.....6515 Sand Drive, Oscoda
Wienczewski, T. W.....811 Chisholm St., Alpena
Wilson, Chas. S. (L).....730 State Ave., Alpena

BARRY COUNTY MEDICAL SOCIETY

Birk, Wilbur R.....146 State St., Hastings
Castleman, Douglas H.....146 E. State St., Hastings
Clarke, Daniel M. (R).....2035 Lycoming Creek, Williamsport, Pa.
Finnie, Raymond G.....118 E. Walnut St., Hastings
France, Lloyd C. (A).....7610 Kipling, Detroit 2
Gwinn, Alexander B.....102 E. State St., Hastings
Heaslip, Jos. D.....Barry Co. Health Center, Hastings
Huebner, R. J.....234 E. State St., Hastings
Lofdahl, Stewart.....N. Main St., Nashville
Logan, Wesley G.....120 S. Washington, Hastings
Millard, James A.....303 Main St., Middleville
Morris, Edgar T. (L).....Nashville
Myers, Thos. W.....307 N. Main St., Nashville
Phelps, Everett L.....118 E. Walnut St., Hastings
Pryor, Robt. B.....234 E. State St., Hastings
Wedel, Herbert S.....234 E. State St., Hastings

BAY-ARENAC-IOSCO COUNTY MEDICAL SOCIETY

Alcorn, Kent A.....1420 Center Ave., Bay City
Alcorn, Marshall W.....1420 Center Ave., Bay City
Allen, Arthur D.....101 W. John St., Bay City
Asbury, Richard B.....2nd and Johnson Sts., Bay City
Asline, John N.....207 N. Walnut St., Bay City
Austin, Justus J.....Tawas City
Boatwright, D. C.....2217 Carroll Rd., Bay City
Bowman, David A.....101 W. John, Bay City
Brinkman, Harvey H.....116 W. State St., East Tawas
Brown, Geo. M.....207 N. Walnut St., Bay City

Campbell, Donald A.....1109 N. Johnson, Bay City
Campbell, John S.....1838 McKinley Ave., Bay City
Chapin, Fredrick J.....2121 Center Ave., Bay City
Connelly, C. J.....1104 S. Madison Ave., Bay City
Cook, Hugh K.....101 W. John St., Bay City
Cooper, James C.....102 Woodside, Essexville
Cosens, Stanley A.....101 W. John St., Bay City
Crissey, Robt. R.....101 W. John St., Bay City
Criswell, Robt. H.....721 Washington Ave., Bay City
Dardas, Michael J.....605 5th Ave., Bay City
De Waele, Paul L.....1106 N. Johnson St., Bay City
Dolbee, Malcolm K.....Box 435, Standish
Drummond, Fred H.....Kawkawlin
Ellison, Alfred, Jr.....101 John St., Bay City
Follis, Wm. M.....101 W. John, Bay City
Freel, John A.....114 N. Madison, Bay City
Gamble, Wm. G., Jr.....2010 5th Ave., Bay City
Gehman, J. R.....Standish
Geneczko, John T.....1102 Columbus Ave., Bay City
Grigg, John W.....900 N. Jackson, Bay City
Gunn, Robt. P.....200 Lafayette, Bay City
Hafford, Robert C.....101 W. John St., Bay City
Hagelshaw, Gayland L.....101 W. John St., Bay City
Hess, Chas. L. (R).....110 E. Coronado Rd., Phoenix, Ariz.
Heuser, Harold H.....916 Washington Ave., Bay City
Hickner, Lawrence P.....101 W. John St., Bay City
Horowitz, Samuel F.....1415 Center Ave., Bay City
Howland, Walter L.....P. O. Box 633, Pinconning
Huckins, Rodger S.....1802 Broadway, Bay City
Hughes, E. Chas. (L)....505 N. Madison Ave., Bay City
Jacoby, Abraham H.....2202 Ninth St., Bay City
Jacques, J. E.....1233 Tawas Beach Rd., East Tawas
Jaffe, Martin D.....304 Davidson Bldg., Bay City
Jens, Otto F.....1506 Prairie St., Essexville
Johnson, Orlen J.....207 N. Walnut St., Bay City
Jones, M. Culver.....900 N. Jackson, Bay City
Kelly, Larry Stanley.....East Tawas
Kershul, Victor W. (A).....1128 W. Washington St., Ann Arbor
Kessler, Mana.....311 Center Ave., Bay City
Kessler, Sabina.....311 Center Ave., Bay City
Knobloch, Howard T.....1102 Columbus, Bay City
Kulinski, Eugene J.....601 Ames Ct., Bay City
Langin, John L.....100 15th St., Bay City
Laporte, Lawrence A.....308 Newman St., East Tawas
MacRae, Leonard D.....813 Sherman St., Bay City
Mayne, John C.....101 W. John St., Bay City
McDonnell, Walter R.....Pinconning
McGee, Harry B.....101 W. John St., Bay City
McGee, Peter L.....Davidson Bldg, Bay City
McSherry, Leo B., Jr.....1102 Columbus Ave., Bay City
Medvezky, Michael J.....1106 S. Madison Ave., Bay City
Miller, Edwin C.....101 W. John St., Bay City
Moore, Neal R.....704 N. Jackson, Bay City
Mosier, Dwight J.....101 W. John St., Bay City
Payea, Norman P.....217 Newman St., East Tawas
Pearson, Stanley M.....101 W. John St., Bay City
Pelczar, Walter E.....321 N. Johnson St., Bay City
Prophater, Robt. C.....2696 Westgate Dr., Bay City
Reddick, C. E.....Court House, Bay City
Reed, Wm. S.....1705 Third St., Bay City
Reuter, Clarence W.....101 W. John St., Bay City
Rodda, E. R.....101 W. John St., Bay City
Rogers, Charles S.....101 W. John St., Bay City
Shafer, Harold C.....101 W. John St., Bay City
Shields, Hubert L.....101 W. John St., Bay City
Smith, J. Campbell.....R.R. 2, Tekonsha
Staley, Hugh O.....Omer
Standiford, David.....101 W. John St., Bay City
Stankey, Robt. M.....310 Pine St., Essexville
Stinson, Walter S. (R).....105 W. John St., Bay City
Stroia, Livius N.....101 W. John St., Bay City
Suter, Don E.....307 Davidson Bldg., Bay City
Sutton, R. L., Jr.....116 W. State St., East Tawas
Switzer, Lars W.....1535 N. Madison Ave., Bay City
Taheri, Zia E.....1411 Center Avenue, Bay City
Tarter, Clyde S.....1712 Center Ave., Bay City
Tompkins, Dana A.....Pinconning
Treadway, Gaylord.....900 N. Jackson, Bay City
Urmston, Paul R.....916 Washington Ave., Bay City
Vail, Harry F.....812 N. Grant St., Bay City
Wilcox, James W.....1115 5th Ave., Bay City
Wilson, Thos. G.....900 N. Jackson St., Bay City
Woodburne, Harris L.....916 Washington Ave., Bay City
Wright, Thomas B.....101 W. John St., Bay City
Zaremba, Aloysius J. (L)..108 S. Madison Ave., Bay City
Ziliak, Alois L., Jr.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY MEDICAL SOCIETY

Allis, Lyle M.....113 Portage St., Buchanan
Anderson, Bertha M. G...262 Pleasant St., Benton Harbor
Bailey, John H.....2150 Samuel Ave., Benton Harbor
Beal, Gerald N.....Sheperd Benning Bldg., St. Joseph
Benner, Wm. H.....700 Empire Rd., Benton Harbor
Bliesmer, August F.....505 Pleasant St., St. Joseph
Bronfenbrenner, Jack.....687 E. Empire Ave., Benton Harbor
Bruni, John R.....1 South Fifth St., Niles
Butler, Wm. J.....Henry Ford Hosp., Detroit
Camp, Donald C.....8 N. St. Joseph Ave., Niles
Cawthorne, Harold J.....239 Pipestone St., Benton Harbor
Chickering, Wm. A...205 E. Delaware St., Benton Harbor
Cilella, S. G.....Pawating Hospital, Niles
Conway, Jos.....Watervliet
Conybeare, Robt. C.....756 Pipestone, Benton Harbor
Cooper, Wm. L.....Rt. 1, Paw Paw Island, Coloma
Cowdery, Kenneth H.....1600 Niles Ave., St. Joseph
Crowell, Richard C.....519 Ship St., St. Joseph
Dalgleish, Archie J.....460 N. Main St., Watervliet
Eidson, Hazel D.....Berrien Springs
Elghammer, Richard M...1106 Highland Ave., St. Joseph
Elliott, J. Colin.....207 E. Front St., Buchanan
Emery, Clayton S.....1020 Niles Ave., St. Joseph
Emery, Wm. K.....1020 Niles Ave., St. Joseph
Faber, Michael.....44 Elm St., Benton Harbor
Fattic, Grover R., Jr.....Box 427, Niles
Feeley, Marshall J.....2516 Niles Ave., St. Joseph
Feldmann, Robt. J.....2101 Chestnut, Philadelphia, Pa.
Friedman, Morris E.....Barton St., New Buffalo
Galles, James O.....Rte. 1, Paw Paw Island, Coloma
Garrett, Evan L.....P. O. Box 427, Niles
Gillette, Clarence (L).....R.F.D. 4M60W, Niles
Gould, Samuel.....127 E. Nafier Ave., Benton Harbor
Grayson, Chas. J.....4 Maple St., Three Oaks
Green, Barbara G.....2600 Morton Street, St. Joseph
Green, Robert L.....2600 Morton Street, St. Joseph
Grundset, Harold M.....Rte. #1, Box 265, Coloma
Gustin, Ralph D.....100½ Ferry St., Berrien Springs
Harrison, L. L.....304 Main Street, Niles
Hassan, D. Kent.....606 Rynearson St., Buchanan
Hayes, Thos. P.....922 Main St., St. Joseph
Heath, David D.....P. O. Box 124, Bridgeman
Henderson, Fred C.....703 E. Main, Niles
Hershey, Noel J.....P.O. Box 222, Niles
Holt, Robt. E.....P.O. Box 222, Niles
Howard, Frank W.....756 Pipestone, Benton Harbor
Hudnutt, Dean.....811 Myrtle St., St. Joseph
Huff, Harold D.....126 Main St., Niles
Irgens, Edwin R.....910 Kingsley Ave., St. Joseph
Johnston, Wm. H.....505 Pleasant St., St. Joseph
Kelsall, Harvey I.....1600 Niles Ave., St. Joseph
Kenfield, W. J.....756 Pipestone, Benton Harbor
Kennedy, F. Alan.....239 Pipestone, Benton Harbor
King, Byron B.....687 Empire, Benton Harbor
King, Frank A., Jr.....169 Michigan St., Benton Harbor
Klos, Henry J.....2700 Highland Ct., St. Joseph
Landgraf, Robt. L.....P.O. Box 222, Niles

Lee, Hai Soon.....Pawating Hosp., Niles
Leva, John B.....1122 Salem Ave., Benton Harbor
Lindenfeld, Frederick H.....8 N. St. Joseph Ave., Niles
Lininger, Richard E.....2712 Highland Ct., St. Joseph
Manning, John T.....1611 Forres Ave., St. Joseph
May, A. J.....925 Pipestone St., Benton Harbor
McLelland, J. T.....Mercy Hosp. X-Ray Dept., Benton Harbor
McNabb, Arthur A.....469 Main St., Watervliet
Mesirow, Stanley M.....687 E. Empire Ave., Benton Harbor
Miller, Edward A. (R)..420 Kimmel St., Berrien Springs
Moore, T. Scott.....P. O. Box 416, Niles
Ozeran, Chas. J.....127 E. Napier, Benton Harbor
Padelford, Wm. J.....South Lyon
Peshka, David K.....P.O. Box 427, Niles
Polansky, Sanford.....84 W. Main St., Benton Harbor
Porter, Chas. B.....1589 Colfax Ave., Benton Harbor
Pritchard, Harold M.....502 Broadway, Niles
Rague, Paul O.....960 Agard, Benton Harbor
Ray, Dean K.....2522 Niles, St. Joseph
Reagan, Robt. E.....232 Windsor, Benton Harbor
Rice, Franklyn G.....324 N. Fourth St., Niles
Richmond, Dean M.....314 State St., St. Joseph
Ruth, J. Griswold.....507 Britain Ave., Benton Harbor
Skinner, James W.....460 Ridgeway St., St. Joseph
Smith, W. B.....239 Pipestone St., Benton Harbor
Sowers, Bouton F.....756 Pipestone St., Benton Harbor
Strayer, John W.....P.O. Box 222, Niles
Stulik, Chas. K.....Town Line Rd., P.O. Box 98, Union Pier
Thorup, D. W.....756 Pipestone St., Benton Harbor
Urist, Maurice D.....454 Pipestone St., Benton Harbor
Valantiejus, John A.....R.R. 2, Cedar Lane Farm, New Buffalo
Vastine, Russell J., Jr.....430 W. Chicago, Buchanan
Weber, Harry J.....Berrien County Hosp., Berrien Center
Weber, Velda J.....Berrien County Hosp., Berrien Center
Westervelt, H. O.....539 Pearl St., Benton Harbor
Wilson, Clinton W.....925 Pipestone St., Benton Harbor
Winegar, Alvon C.....190 Michigan St., Benton Harbor
Woodford, Hackley E...191 Michigan St., Benton Harbor
Zick, Luther H.....2522 Niles Ave., St. Joseph

BRANCH COUNTY MEDICAL SOCIETY

Aldrich, Napier S.....162 Marshall St., Coldwater
Andrews, Frank A.....Lock Box 148, Coldwater
Bacon, Chas.....292 E. Chicago, Coldwater
Bailey, James E., Jr.....292 E. Chicago St., Coldwater
Beck, Perry C.....Box 25, Bronson
Buell, Martin.....N. Broadway St., Union City
Coates, Carl A.....135 Stringtown R.F.D. 1, Quincy
Culver, Bert W. (L).....72 Division St., Coldwater
Culver, Dean T.....173 E. Chicago St., Coldwater
Fraser, Robt. J.....22 W. Pearl St., Coldwater
Gomley, Henry C.....108 E. Chicago St., Bronson
Hamilton, Earl D.....State Home Training School, Coldwater
Harris, Donald M.....35 S. Sprague St., Coldwater
Heffelfinger, John C.....292 E. Chicago Ave., Coldwater
Leitch, Robt. M.....304 N. Broadway, Union City
McLain, Richard W. (L)....37 Janoah Ave., Battle Creek
Meier, Harold J.....87 W. Pearl St., Coldwater
Mitchell, Harold C.....Lock Box 148, Coldwater
Mooi, Henry R.....20 Fairfield Dr., Coldwater
Moss, Harvey L.....86 W. Clarke, Coldwater
Nettleman, Wm. E.....136 E. Pearl St., Coldwater
Olmsted, Kenneth L.....70 Marshall St., Coldwater
Rennell, Edwin J.....Coldwater State Home, Coldwater
Southworth, Robt.....50 Division St., Coldwater
Thomas, James A.....390 E. Chicago St., Coldwater
Wade, Robt. L. (L).....116 E. Chicago St., Coldwater
Walton, Nathaniel J.....Quincy
Weidner, Harold R.....50 Division St., Coldwater

CALHOUN COUNTY MEDICAL SOCIETY

Albright, Arnold A.....Rte. 3, Box 226A, Bellevue
Allen, R. H.....191 College, Battle Creek
Amos, Norman H.....Rte. 4, Box 95, Battle Creek
Anderson, Harold E...65 W. Michigan Ave., Battle Creek

Bakken, Richard L.....113 N. McCamly, Battle Creek
Barden, Stuart P.....Leila Hosp., Battle Creek
Baribeau, Roy H.....65 W. Michigan Ave., Battle Creek
Becker, Harry F.....P.O. Box 547, Battle Creek
Berghorst, John (A).....VA Hospital, Battle Creek
Beuker, Herman.....120 E. Michigan Ave., Marshall
Bodine, Harold R.....1 W. Michigan Ave., Battle Creek
Bonifer, Philip P.....231 North Ave., Battle Creek
Boswell, David E.....105 N. Jefferson Ave., Marshall
Brainard, C. W.....148 Wah Wah Tay See, Battle Creek
Braverman, A. H. (A).....VA Hospital, Ft. Custer
Brown, Robt. W.....24 Country Club Dr., Battle Creek

Campbell, Alice F.....103 E. Mulberry St., Albion
Campbell, Jack S.....1 W. Michigan Ave., Battle Creek
Campbell, Richard J.....140 Capital Ave. N.E., Battle Creek
Capron, Manley J.....65 W. Michigan Ave., Battle Creek
Caviness, L. Harold.....Battle Creek Sanitarium, Battle Creek
Chandler, Edward M.....411 Mich. Nat. Bk. Bldg., Battle Creek
Chynoweth, Wm. R. (L).....65 W. Michigan Ave., Battle Creek
Coakes, Jack E.....716 Gorham St., Marshall
Colquhoun, Graham F.....25 W. Michigan Ave., Battle Creek
Cram, Ralph A.....Albion
Curry, Robt. K.....Homer
Daly, Harold L., Jr.....318 S. Superior St., Albion
Daly, Miriam I.....203 Irwin, Albion
D'Aversa, Generoso.....705 Orchard Dr., Albion
Diamante, Paul J.....70 W. Michigan Ave., Battle Creek
Dickson, Albert R.....250 Champion St., Battle Creek
Dodge, Warren M., Jr.....70 W. Michigan Ave., Battle Creek
Fairbanks, Stephen.....P.O. Box 67, Albion
Ferazzi, Patrick S.....140 Capital Ave. N.E., Battle Creek
Finch, Duward L.....719 Capital Ave. S.W., Battle Creek
Fisher, Robt. E.....1501 W. Michigan Ave., Battle Creek
Fraser, Robt. H.....25 W. Michigan Ave., Battle Creek
Funk, L. D.....Athens
Gething, Jos. W. (L).....538 W. Michigan Ave., Battle Creek
Giddings, A. M. (L).....Battle Creek Sanitarium, Battle Creek
Gilfillan, Margery J. (L).....Battle Creek Sanitarium, Battle Creek
Graubner, Franklin L.....Bogar Theatre Bldg., Marshall
Griffith, Jack C.....616 Mich. Nat. Bank Bldg., Battle Creek
Hamady, Alfred.....140 Capital Ave., N.E., Battle Creek
Hansen, Edwin L.....216 North Ave., Battle Creek
Hansen, Harvey C.....65 W. Michigan Ave., Battle Creek
Haughey, Wilfrid (L).....65 W. Michigan Ave., Battle Creek
Henderson, Philip M.....109 W. Erie, Albion
Henriksen, J. D.....236 Beckwith Dr., Battle Creek

Herman, Louis (A).....VA Hospital, Battle Creek
Hibbs, Donald K.....65 W. Michigan Ave., Battle Creek
Holtom, Benj. G.....78 Merwood Dr. E., Battle Creek
Hubly, James W.....25 W. Michigan Ave., Battle Creek
Humphrey, Archie E.....864 E. Michigan St., Marshall
Humphrey, Arthur A.....Country Club Dr., Battle Creek
Jeffrey, James R. (L).....179 N. Washington Ave., Battle Creek
Jones, Aubrey H. (A).....(No Address)
Jones, Ernest F. (A).....VA Hospital, Battle Creek
Jones, Tyre K.....118 W. Green, Marshall
Kavanagh, Thomas W.....612 Mich. Natl. Bk. Bldg., Battle Creek
Keagle, Leland R.....196 North Ave., Battle Creek
Keeler, Kenneth B. (R)....Commercial Bk. Bldg., Albion
Kelleher, Geo. T.....235 North Ave., Battle Creek
Kimball, Arthur S., Jr.....1150 E. Michigan, Battle Creek
Kinde, Matthew R.....Rt. 3, Box 62, Battle Creek
Kingsley, Paul C.....191 College, Battle Creek
Klopp, Edward J.....1015 Security Tower, Battle Creek
LaFrance, N. F. (A).....VA Hospital, Fort Custer
Lam, Francis L.....408 Capital Ave. S.W., Battle Creek
Lancaster, Vance B.....119 Ridgeway Dr., Battle Creek
Lentz, Carlisle S. (A)....27 Orchard Place, Battle Creek
Levine, S. L. (A).....VA Hospital, Battle Creek
Levy, Jos., Jr.....231 North Ave., Battle Creek
Lewis, Welcome B. (L).....110 Irving Park Dr., Battle Creek
Long, Walter B.....Homer
Lowe, Kenneth H.....231 North Ave., Battle Creek
Lowe, Stanley T.....231 North Ave., Battle Creek
Lynk, Stanley M. (A).....VA Hospital, Battle Creek
Marino, Salvator G. (A)....VA Hospital, Lebanon, Penn.
McCuaig, Alfred G.....719 Capitol St., S.W., Battle Creek
McFarland, J. W.....Atlantic Union Office, S. Lancaster, Mass.
Meister, Franklin O.....1614 Security Tower, Battle Creek
Melges, Frederick J.....25 W. Michigan Ave., Battle Creek
Mitton, Orland W. (R).....American Legion Hosp., Battle Creek
Morrison, Donald B.....719 Capitol S.W., Battle Creek
Mullenmeister, H. F.....99 Fremont St., Battle Creek
Mustard, Russell L.....25 W. Michigan Ave., Battle Creek
Norgan, Anne F.....133 Waubascon Dr., Battle Creek
Orr, Eli H. (A).....VA Hospital, Battle Creek
Parkinson, Chas. E.....9 Emmett St., Battle Creek
Patrick, Gilbert T.....25 W. Michigan Ave., Battle Creek
Pearson, Donald J.....255 North Ave., Battle Creek
Pier, Clarence T. (A).....VA Hospital, Battle Creek
Power, John R.....140 Capital Ave., N.E., Battle Creek
Robbert, John.....164 Francis Dr., Battle Creek
Rorich, Wilma C. W.....166 N. E. Capitol, Battle Creek
Rosenfeld, Jos. E.....158 Capital Ave. N.E., Battle Creek
Rowan, Russell C.....205 S. Superior St., Albion
Royer, Clark W.....1331 W. Michigan Ave., Battle Creek
Ryan, Chas. J.....Leila Hosp., Battle Creek
Sharp, Ara D. (R).....308 Superior St., Albion
Shellenberger, H. M.....Box 168, Marshall
Shipp, Leland P.....25 W. Michigan Ave., Battle Creek
Sibilsky, A. Clark (A).....Veterans Administration, Battle Creek
Simpson, Robt. S.....700 Capital Ave. S.W., Battle Creek
Slagle, Geo. W.....140 N. E. Capital, Battle Creek
Sleight, James D.....25 W. Michigan Ave., Battle Creek
Smith, Dunbar W.....138 Oaklawn Ave., Battle Creek
Smith, Joseph S. (A).....VA Hospital, Battle Creek
Spencer, Collis M.....308 S. Superior St., Albion
Stadle, Wendall H. (R).....607 Jennings Landing, Gougac Lake
Stephenson, C. D.....140 Capital Ave. N.E., Battle Creek
Stiefel, Richard A.....25 W. Michigan Ave., Battle Creek
Strohmenger, Frank J.....400 S. Superior St., Albion
Taylor, Clifford B.....308 S. Superior St., Albion
Tazelaar, Myron A.....219 N. Madison St., Marshall
Vander Kamp, Harry (A).....VA Hospital, Battle Creek
Vander Voort, Wm. V. (L)....179 N. Washington Ave., Battle Creek
Van Sandt, M. M. (A)..Fed. Civil Defense, Battle Creek
Verity, Lloyd E.....25 W. Michigan Ave., Battle Creek
Vetne, Gunner.....1506 Second Nat. Bank Bldg., Battle Creek
Walker, Chas. S.....709 W. Van Buren St., Battle Creek
Walters, John F.....265 Sherman Rd., Battle Creek
Walters, Wm. D.....R.F.D. 3, Box 605 A, Battle Creek
Way, Kenneth E.....2996 Meadowbrook Blvd., Cleveland Hts., Ohio
Wemmer, Keith S...1472 W. Michigan Ave., Battle Creek
Wencke, Carl G.....127 Park Pl., Battle Creek
Winslow, Sherwood B.....25 W. Michigan, Battle Creek
Worgess, Duane R.....45 W. Territorial Rd., Battle Creek
Yannitelli, S. A.....28 Woodmer Lane, Battle Creek
Zaplitny, R. B.....1704 Wolverine Fed. Tr., Battle Creek
Zaplitny, Sophia.....34 Ardmoor, Battle Creek
Zheutlin, Bertram.....50 Adams St., Battle Creek
Zindler, Geo. A.....R. 3, Box A 75, Bellevue

CASS COUNTY MEDICAL SOCIETY

Adams, Uriah M.....Marcellus
Clary, Rudolph I.....216 S. Front St., Dowagiac
Comstock, L. David, Jr.....216 S. Front St., Dowagiac
Hickman, John K.....108 W. Division, Dowagiac
Loupee, Geo. E.....110 W. Division St., Dowagiac
Loupee, Sherman L. (L)..110 W. Division St., Dowagiac
Nakas, Oswaldes.....R.R. 1, Cassopolis
Pierce, Frank L. (L).....142½ S. Front, Dowagiac
Pierce, Kenneth C.....401 Spruce St., Dowagiac

CHIPPEWA-MACKINAC COUNTY MEDICAL SOCIETY

Allott, Hugh R.....816 Ashmun St., Sault Ste. Marie
Bandy, Festus C. (R)..2431 Hamlin Lane, Sarasota, Fla.
Blair, H. Milton.....300 Court St., Sault Ste. Marie
Cantwell, Earl K.....300-306 Court St., Sault Ste. Marie
Clausen, Claire H.....300 Court St., Sault Ste. Marie
Duvall, Dorothy V.....520 Division St., Sault Ste. Marie
Finlayson, Donald D...301 E. Spruce St., Sault Ste. Marie
Futterer, LeRoy A. (A).....538 U.S. 10, Sanford
Gates, Irene.....Cedar Pointe, Mackinac Island
Goldberg, Abraham H...310 Ashmun St., Sault Ste. Marie
Hagele, Marie A.....126 Park Pl., Sault Ste. Marie
Hamel, Herbert E.....St. Ignace
Harrington, Harvey M.....816 Ashmun St., Sault Ste. Marie
Howe, Donnell C., Jr.....300 Court St., Sault Ste. Marie
Howe, Gertrude E.....425 E. Spruce St., Sault Ste. Marie
Mackie, Thos. B.....300 Court St., Sault Ste. Marie
McBryde, Lyman M.....416 Ashmun St., Sault Ste. Marie
Mertaugh, Wm. F.....104 W. Spruce St., Sault Ste. Marie
Montgomery, Benj. T.....301 E. Spruce St., Sault Ste. Marie
Rhind, Earl S.....Sault Polyclinic, Sault Ste. Marie
Solomon, Joseph A.....Mackinac Island
Sudranski, Herbert F.....300 Court St., Sault Ste. Marie
Thompson, Chas. F.....Drummond Island
Trapasso, Tony J.....816 Ashmun, Sault Ste. Marie
Venier, Anton G.....816 Ashmun St., Sault Ste. Marie
Wallen, LeRoy J.....409 Ashmun St., Sault Ste. Marie
Yale, Ira V. (L).....200 Ashmun St., Sault Ste. Marie

CLINTON COUNTY MEDICAL SOCIETY

Bennett, Geo. W.....203 W. Main St., Elsie
Cook, Bruno C.....Westphalia
Elliott, Bruce R.....Box 369, Ovid
Fillinger, Wells B.....Ovid
Foo, Chas. T.....110 E. McConnell St., St. Johns
Grost, James M.....110 Oakland Street, St. Johns
Henthorn, Arthur C.....4611 N.U.S. 27, St. Johns
Luton, Frank E. (L).....Beaver Island, St. James
McWilliams, Wm. B.....Maple Rapids
Russell, Sherwood R.....104 N. Oakland St., St. Johns
Sheline, Victor L.....Medical Center, Ithaca
Slagh, Earl M.....Elsie
Smith, Franklin W.....105 S. Ottawa St., St. Johns
Stephenson, Wesley F.....510 E. Walker St., St. Johns
Stoller, Paul F.....St. Johns

DELTA-SCHOOLCRAFT COUNTY MEDICAL SOCIETY

Anderson, Francis C.....218 S. 10th St., Escanaba
Benson, Gilbert W. (A).....Ludington St., Escanaba
Bernier, A. Barroso.....547 Michigan Ave., Manistique
Boyce, Donald H.....1107 Ludington St., Escanaba
Dehlin, James R.....8 S. 11th St., Gladstone
Fyvie, James H.....202 S. Cedar St., Manistique
Groos, Harold Q.....1015 S. 1st Ave., Escanaba
Groos, Louis P.....1015 S. 1st Ave., Escanaba
Hult, Otto S.....1005 Delta Ave., Gladstone
Jenke, Albert.....738 Lakeshore Dr., Escanaba
LeMire, Donald F.....1104 S. First Ave., Escanaba
LeMire, William A.....1106 First Ave. S., Escanaba
Lindquist, Norman L.....205 S. Tenth St., Escanaba
Maniaci, Geo.....8 S. 11th St., Gladstone
McInerney, Thos. A.....1221 Ludington St., Escanaba
Miller, Albert H. (L).....904 Wisconsin, Gladstone
Nagy, Chas. J.....Bark River
Olson, Carl J.....8 S. 11th St., Gladstone
Ryde, Robt. E.....1221 Ludington, Escanaba
Waters, Duane L.....200 S. Cedar St., Manistique
Wehner, Merle E.....131 River St., Manistique
Whipple, Arno.....108 S. Tenth St., Escanaba

DICKINSON-IRON COUNTY MEDICAL SOCIETY

Addison, Earl R.....412 Superior Ave., Crystall Falls
Alexander, Wm. H.....411 East C St., Iron Mountain
Anderson, Donald T.....408 Hamilton Ave., Kingsford
Boyce, George H. (L).....First Natl. Bank Bldg., Iron Mountain
Browning, James L.....212 East B St., Iron Mountain
Carlson, Ralph E.....500 Stephenson Ave., Iron Mountain
Cecconi, R. D.....110 West B St., Iron Mountain
Cooper, Chas. A.....Box 542, Stambaugh
Dittrich, Raymond J.....732 Hamilton Ave., Kingsford
Gladstone, Wm. R., Jr.....804 Main St., Norway
Hayes, Willard N.....720 N. Main St., Norway
Huron, Willis H.....106 West B. St., Iron Mountain
Irvine, Lionel E.....Box 438, Iron River
Klaus, Cyril D. (A).....208 E. Hugitt, Iron Mountain
Kofmehl, Wm. J.....Stambaugh
McEachran, Hugh D.....500 Stephenson Ave., Iron Mountain
Nora, James C.....15 Eighth Avenue, Iron River
Palm, E. Theodore.....412 Superior Ave., Crystal Falls
Retallack, Russell C.....326 W. Genesee St., Iron River
Schmutzler, Walter A.....373 Woodward St. Iron Mountain
Schroeder, John M.....Khoury Bldg., Iron Mountain
Smith, Donald R.....Box 471, Iron Mountain
Steinke, Chas. G.....517 Stephenson Ave., Iron Mountain

EATON COUNTY MEDICAL SOCIETY

Arner, Fred L.....Bellevue
Berden, Eleanor A.....2630 Libbie Drive, Lansing 17
Brown, Byron P.....339 S. Cochran, Charlotte
Carothers, Daniel J.....315 S. Cochran, Charlotte
Cook, J. Maxwell.....144 S. Cochran St., Charlotte
DeLand C. LeRoy.....Olivet
Engle, Paul H. (A).....Olivet
Garlock, Fred C.....406 E. Jefferson St., Grand Ledge
Hannah, Harry W.....R.F.D. 3, Charlotte
Harrod, Gordon R.....Grand Ledge
Imthun, Edgar F.....113 E. Jefferson, Grand Ledge
Landick, Robt. E., Jr.....111 S. Cochran St., Charlotte
Matthews, R. W.....236 S. Main Street, Charlotte
Meinke, Albert H., Jr.....702 S. Main, Eaton Rapids
Meinke, Richard K. (A)..523 11th St., Rochester, Minn.
Myers, Albert W.....Potterville
Riley, Jos. L.....201 S. Cochran St., Charlotte
Robinson, S. R.....315 W. Jefferson, Grand Ledge
Sevener, Lester G.....236 S. Main St., Charlotte
Sherman, Eber B.....210 Broad St., Eaton Rapids
Van Ark, Bert.....123 N. East St., Eaton Rapids
Van Ark, Herman F.....Eaton Rapids
Whitlock, Stanley C.....Dimondale
Willits, Clayton O.....127 Upland, Charlotte

GENESEE COUNTY MEDICAL SOCIETY

Adams, Burnell H. (A)....Henry Ford Hospital, Detroit
Adams, Chester H.....1114 Beach St., Flint 3
Allard, Pierre Paul (A)..4252 Beecher Rd., Apt. B, Flint
Anderson, Harley H.....11280 N. Saginaw, Mt. Morris
Anderson, John L.....2765 Flushing Rd., Flint 4
Anderson, Robt. E.....3002 Mason St., Flint
Andrews, Nelson A. C.....310 E. Main St., Flushing
Anthony, Geo. E. R.....1015 Detroit St., Flint 4
Baird, W. Claire.....2765 Flushing Rd., Flint
Bald, Frederick W.....503 S. Saginaw St., Flint 3
Barbour, Fleming A.....2015 Lincoln Dr., Flint 3
Baske, Franklin W.....923 Maxine St., Flint 3
Batdorf, John W. (A).....1925 Park Forest Dr., Flint
Batdorf, Joseph T.....Goodrich Hospital, Goodrich
Bateman, Lawrence G.....1928 Lewis St., Flint 6
Beck, Douglass R.....4252 Beecher Rd., Apt. D, Flint 4
Becker, Eugene B.....2765 Flushing Rd., Flint
Benkert, Jack.....Goodrich Hosp., Goodrich
Benson, John C., Jr.....402 W. 2nd St., Flint 3
Bentley, Robert H. (A)....1531 Kearsley Pk. Blvd., Flint
Berman, Harry.....3309 Fenton Rd., Flint 7
Bernstein, Eli N.....108 E. Kearsley St., Flint 3
Best, J. A.....64047 Clio Road, Flint
Beyer, Geo. D.....145 W. Vienna St., Clio

Bishop, Don L.....2226 Detroit St., Flint 5
Blain, Claude (A).....2214 W. Vernon Ave., Flint
Bogart, Leon M. (L).....503 National Bldg., Flint
Boles, Wm. P.....714 Beach St., Flint 3
Bradley, Robert M.....1112 Mott Fdtn. Bldg., Flint 2
Brain, Roy G.....460 S. Saginaw St., Flint 3
Branch, Hira E.....1014 Woodside Dr., Flint 3
Brasie, Donald R.....310 Josephine St., Flint 4
Briggs, Guy D. (L).....224 E. Court St., Flint 3
Bruce, Wm. W. (A).....Jackson Memorial Hosp., Miami, Florida
Bryant, Donald R.....621 Mott Fdn. Bldg., Flint
Buchanan, Gerald S.....211 S. Saginaw St., Holly
Buchanan, Wm. F.....238 W. Caroline, Fenton
Burkett, Leslie V.....202 County Office Bldg., Flint 3
Burnell, Max R. (R).....3301 Westwood Pkwy., Flint 3

Campbell, Wm. R. (A).....1006 Prospect St., Flint
Caster, Elisha W. (L).....19354 James Couzens Hwy., Detroit
Chambers, Myrton S.....3402 Westwood Pkwy., Flint 3
Chase, Wm. D.....1318 N. Ballenger Hwy., Flint 4
Clark, Clifford P. (L).....11111 S.W. 62nd Ave., Miami 43, Fla.
Clark, Robt. L.....1301 Flushing Rd., Flint 4
Collins, James I.....G 1128 N. Dye Road, Flint
Colwell, Clifford W.....328 S. Saginaw St., Flint 3
Conover, Geo. V.....346 S. Saginaw St., Flint 3
Conover, McClellan B.....724 East Street, Flint 3
Conover, Thaddeus S.....724 East St., Flint 3
Cook, Henry (L).....709 Genesee Bank Bldg., Flint 2
Coriasso, Louis B.....614 Odette, Flint 4
Covert, Floyd L. (L).....116 Lord St., Gaines
Cox, J. Bruce (A).....1616 Robt. T. Longway, Flint
Coyne, K. M.....2765 Flushing Rd., Flint
Craig, Wm. G.....3026 Beecher Rd., Flint
Credille, Barney A.....346 S. Saginaw St., Flint 3
Cross, Robert L. (A).....Hurley Hospital, Flint
Curry, Geo. J.....346 S. Saginaw St., Flint 3
Curtin, John H.....1300 N. Dort Hwy., Flint 2
Cutler, G. Campbell.....2415 Detroit St., Flint

Davis, Robt. C.....G 3029 Flushing Rd., Flint 4
Dawson, Ralph E.....1617 Linwood, Flint 3
Day, John Murray.....810 S. Ballenger Rd., Flint
Delzingro, Nicholas.....328 Main St., Davison
Dettman, Carlton K.....Nanita Dr., Montrose
Dickstein, Bernard.....460 S. Saginaw St., Flint 3
Dimond, Edwin G. (L).....346 S. Saginaw St., Flint 3
Dodds, Frederick E.....1336 Lewis St., Flint 6
Dodds, Max E.....460-464 S. Saginaw St., Flint 3
Dooley, James F.....2019 Gold Avenue, Flint
Dorsey, Philip W.....2765 Flushing Rd., Flint 4
Dowling, Geo. W...3075 Washington St., Miami, Florida
Drewyer, Glenn E.....5327 W. Reid St., Swartz Creek
Drouin, J. E. (A).....P.O. Box 940, Buckingham Quebec, Can.
D'Urso, John A. (A).....1618 Robt. T. Longway, Flint
Dykewicz, Richard A.....3705 Beecher Rd., Flint 3

Eaton, Wayne L.....2765 Flushing Rd., Flint
Eichhorn, Ernest M.....503 S. Saginaw, Flint
Eickhorst, Thos. N.....1604 Mott Fdn. Bldg., Flint 2
Elliott, Hardie B., Jr.....503 S. Saginaw St., Flint 3
Engelman, Raymond M.....503 S. Saginaw St., Flint 3
Ettinger, Ralph D.....111 Walnut St., Fenton
Eylands, Jon (A).....1630 Robt. T. Longway, Flint

Fan, Q. C.....2002 E. Court St., Flint
Farah, Ben S.....2765 Flushing Rd., Flint
Farhat, Maynard M.....505 W. Court St., Flint
Fee, Manson G.....108 E. Kearsley St., Flint 3
Ferris, James W.....426 N. State St., Davison
Finkelstein, Theodore.....1415 Broadway Blvd., Flint 6
Forrer, Graydon R.....307 E. Court St., Flint 3
Fuller, Harvey T.....820 Genesee St., Mt. Morris

Gal, Bela.....1538 Mabel, Flint 6
Gelenger, Stephen M.....2125 Detroit St., Flint 5
Goering, George R. (L).....519 Dryden Bldg., Flint
Goetz, Margaret M.....1221 Church St., Flint
Goetz, Rudolf.....1221 Church St., Flint
Golden, Evelyn.....218 E. Court St., Flint
Golden, H. Maxwell.....218 E. Court St., Flint 3
Goodfellow, Benj. T. (L).....506 Page St., Flint 5
Gorne, Saul S.....619 Clifford St., Flint 3
Gould, David (A).....1614 Robt. T. Longway, Flint
Grady, Donald R.....1515 Woodslee Dr., Flint 3
Griffin, Ernest P., Jr.....1505 Arrow Lane, Flint 7
Grover, Harold F.....601 S. Saginaw St., Flint 3
Guile, Gordon S.....1621 Dupont St., Flint
Gumpper, C. R.....4430 Morrish Rd., Swartz Creek
Gundry, Geo. L.....Grand Blanc
Gutov, Isadore H.....2765 Flushing Rd., Flint 4
Gutov, Julius J.....726 Church, Flint 3
Guyon, Jos. F.....302 W. Pierson Rd., Flint 5
Guyon, Mary A. W.....302 W. Pierson Rd., Flint 5
Hackley, Richard D.....3942 Western Rd., Flint
Hague, Robt. F.....210 E. Court St., Flint 3
Hamady, Ruth B.....228 Welch Blvd., Flint
Hanley, William J. (A)....1626 Robt. T. Longway, Flint
Harper, Robt. H.....713 Thomson St., Flint 3
Hauser, Frederick V.....1015 Mott Fdtn. Bldg., Flint 2
Hawkins, James E.....4618 Roberts St., Flint
Hennessy, Charles R.....517 Mott Fdtn. Bldg., Flint
Hill, Wm. T.....4834 Willow Bend Blvd., Houston 24, Texas
Hiscock, Harold H.....503 S. Saginaw St., Flint 3
Hockman, Thomas A.....1513 Winona, Flint
Hodges, Frank V.....1222 Vincent Street, Flint 3
Hoffman, John (A).....1505 Bent Drive, Flint
Hubbard, Wm. B.....1205 Maxine St., Flint 3
Hufton, Wilfrid L.....2765 Flushing Rd., Flint 4
Hurd, Clayton E.....300 Roberts St., Fenton
Irish, Lawrence R.....348 Sheffield Street, Flint
Iung, Omero S. (A).....2018 Castle Lane, Flint
Jaarsma, Raymond A.....Flint Med. Arts Bldg., Flint 4
Jackson, Donald P.....Davison
James, Robt. E.....3001 S. Saginaw St., Flint
Johnson, A. H., Jr.....3219 North St., Flint 5
Johnson, Frank D.....653 S. Saginaw St., Flint 3
Johnson, Raymond E.....5173 W. Reid Rd., Swartz Creek
Jordan, Paul H.....302 W. 2nd Ave., Flint
Judd, Alvin E.....2315 Davison Rd., Flint 6

Kaufman, Lewis D.....4002 N. Saginaw St., Flint 5
Kimbrough, C. B.....1402 S. Saginaw St., Flint 3
Kitto, Harold J.....902 Stockdale, Flint
Kline, O. F. (A).....Hurley Hospital, Flint
Knapp, Wm. D.....503 S. Saginaw St., Flint 3
Knights, Edwin M., Jr.....Hurley Hosp., Flint
Koop, Chester S.....2503 Detroit St., Flint 5
Kretchmar, Arthur H.....460 S. Saginaw, Flint 10
Kurtz, John J.....601 S. Saginaw St., Flint 3

Laird, James I.....10114 Main St., Goodrich
Larose, Claude (A).....1016 Martin Place, Ann Arbor
Leach, J. Leonidas.....3007 Industrial Ave., Flint
LeBer, Stanley M. (A).....4256 Beecher Rd., Flint
LeMieux, Leslie L.....701 W. Dayton St., Flint 4
Lewis, Thos. E.....3520 Richfield Rd., Flint 6
Lightfoot, Arthur S.....101½ E. Flint Pk. Blvd., Flint
Limbach, David R.....900 Begole St., Flint 2
Lindman, Thomas C.....508 Fremont St., Flint
Livesay, Jackson E.....503 S. Saginaw St., Flint 3
Longfield, Gordon M. (A).....1918 Castle Lane, Flint
Lundeen, Richard M.....3046 Canterbury Lane, Flint
Lusk, John A.....10114 Hegel Road, Goodrich
Lyttle, Sydney N.....503 S. Saginaw St., Flint 3

MacGregor, Delbert M.....701 W. Dayton St., Flint 4
MacKenzie, J. W., Jr.....5397 Miller Road, Swartz Creek
Macksood, Jos. A.....2501 N. Saginaw St., Flint 5
Mangelsdorf, C. H.....4122 Brownsell, Flint
Manwaring, John T.....565 Welch Blvd., Flint 3
Markunas, Paul J.....4002 N. Saginaw St., Flint
Martin, James A.....822 S. Leroy, Fenton
Mason, Donald V. (A).....Hurley Hospital, Flint
Mathias, Berton J.....1301 Flushing Rd., Flint 4
Matthews, W. N. (A).....823 N. Gd. Traverse, Flint
McClellan, Junius W.....Buick Motor Division, Flint 7
McGarry, Burton G. (L).....Burns St., Howell

McGarry, Roy A. (L).....601 S. Saginaw St., Flint 3
McKenna, Oscar W. (L).....520 E. Third St., Flint 3
McLeod, Kenneth W. A.....2765 Flushing Road, Flint 5
McMurray, Richard J.....2765 Flushing Rd., Flint
McTaggart, David.....312 Patterson Bldg., Flint
Mendrek, H. H.....G 4323 Fenton Road, Flint
Merchun, Frank A. (A).....916 W. 8th Ave., Flint
Michael, Sidney R.....922 Welch Blvd., Flint 4
Michels, Robt. M.....409 McKinley Rd., Flushing
Michelson, Richard B.....5001 N. Saginaw St., Flint
Miller, Edwin E. (L).....5903 48 Street N.E., St. Petersburg, Fla.
Miller, Loren E.....2645 Corunna Rd., Flint 3
Miltich, Anthony J.....915 S. Grand Traverse, Flint
Moore, Glenn E.....1505 Durand, Flint 3
Moore, Wesley P.....802 Tilden, Flint 5
Morrison, Wm. H.....205 Perry Rd., Grand Blanc
Morrissey, Vaughn H.....101 Stockdale St., Flint 4
Mosier, Edward C.....115 Lake St., Otisville
Murphy, E. Grant.....1825 Chelsea Circle, Flint
Murphy, Thomas W. (A).....2121 Glendale, Flint

Neiswander, Paul L.....Fisher Body Div. GMC, Grand Blanc
Nicholls, Wm. W.....1301 Flushing Rd., Flint 4
Nitz, Donald A.....3337 W. Vienna Road, Clio

Odle, Ira D. (L).....201 Welch Blvd., Flint 4
O'Meara, Bernard B. (A).....1374 Boseline Rd., Ottawa, Ontario, Canada
Orr, John W. (L).....Orrs Pt. Lk. Fenton, Fenton
Osher, Seymour L.....2113 E. Second St., Flint 3

Parliment, Burt A.....2715 Orchard Lane, Flint 4
Paul, Joseph E.....1650 Miller Rd., Flint 3
Pfeifer, Archibald C.....12205 N. Saginaw, Mount Morris
Phelps, Lynn A.....Goodrich Genl. Hosp., Goodrich
Phillips, Robt. L.....Bay View Pkwy., Nokomis, Fla.
Phillips, Robert W.....2765 Flushing Rd., Flint
Pickering, Woodrow H.....1602 Ballenger Hwy., Flint 4
Pike, Wallace W.....7514 Miller Rd., Swartz Creek
Polich, John J.....1010 W. Pasadena, Flint
Portney, Jack E.....428 Stevens St., Flint 3
Pougnet, W. D.....1651 Detroit Street, Flint
Pratz, Oliver C.....1303 Detroit St., Flint
Preston, Otto J.....300 N. Chevrolet Ave., Flint 2
Prior, Richard W.....707 Park St., Fenton
Purcell, F. L.....Ternstedt Plant, Flint 5

Quin, John, Jr.....2765 Flushing Rd., Flint 4

Ragan, Russell M.....McLaren Gen. Hosp., Flint
Rapport, Richard L.....503 S. Saginaw, Flint 3
Rathburn, Robert J. (A).....1501 Flushing Rd., Flint 4
Rawling, John C.....1121 Mott Fdtn. Bldg., Flint
Rawlings, J. Mott.....1601 Neome Dr., Flint 3
Reed, James E. (A).....Apt. 28, 1226 Vincent, Flint
Reichard, Orill (L).....1507 Detroit St., Flint 3
Reid, John H.....627 Campbell St., Flint
Rice, Alan K. (A).....716 E. Kearsley St., Flint
Richardson, Josephine W.....Warm Springs Fdtn., Warm Springs, Ga.
Rieth, Geo. F.....1406 Davison St., Flint 6
Roberts, Floyd A. (L).....428 Thompson St., Flint
Rowe, John B.....653 Saginaw St., Flint 3
Rulney, Max.....2765 Flushing Road, Flint 4
Rundles, Walter Z., Jr.....500 Grand Traverse St., Flint 3
Rundles, Walter Z.....500 Grand Traverse St., Flint 3

Sandberg, Russell G.....2030 Pierce St., Flint 3
Sandy, Kenneth R.....2701 Detroit St., Flint 5
Scavarda, Chas. J.....2101 E. Court St., Flint 3
Schiff, Benton A.....323 W. 2nd St., Flint 3
Schmidlin, Robt. W.....3710 Davison Rd., Flint 6
Schreiber, E. Oskar.....2765 Flushing Road, Flint 4
Schroeder, Paul E.....907 Welch Blvd., Flint 4
Schultz, J. Stanley.....3327 Fleming Rd., Flint 4
Schwartz, John M.....4300 S. Saginaw St., Flint 2
Schwarz, Heinz H.....1222 Vincent, Flint
Scott, Robt. D.....1215 Detroit St., Flint 4
Searles, Karl F.....2932 Coronna Rd., Flint
Seven, Phillip G.....2301 Cummings, Flint
Seymour, Geo. D.....Professional Bldg., Clio
Shantz, Leighton O.....2026 Calumet St., Flint 3
Sheeran, Daniel H.....346 S. Saginaw St., Flint 3
Sherwood, Frederick.....610 Mott Foundation Bldg., Flint
Shipman, Chas. W.....325 E. 1st St., Flint 3
Simoni, Lewis E.....3210 S. Dort Hgwy., Flint 7
Sirna, Anthony R.....2709 Thomas St., Flint 4
Smith, Eugene C.....503 S. Saginaw St., Flint 3
Smith, Harold O.....1952 Miller Rd., Flint 3
Smith, Maurice J.....2801 N. Saginaw St., Flint 5
Smith, Sidney E. (A).....825 Begole St., Apt. 7, Flint
Sniderman, Benj. F.....727 Beach St., Flint 3
Snyder, Chas. E.....Swartz Creek
Sorkin, Morris L.....718 Beach St., Flint 2
Sorkin, Samuel S.....718 Beach St., Flint 3
Sparks, Harvey V.....2765 Flushing Rd., Flint 4
Steffe, Ralph S.....2765 Flushing Rd., Flint 4
Steinman, Floyd H.....503 S. Saginaw St., Flint 2
Stevens, Philip K.....1626 S. Saginaw, Flint 3
Stevenson, B. M., Jr. (A).....1010 W. 6th Ave., Flint
Stevenson, Wm. W. (L).....108 E. Kearsley St., Flint 3
Streat, Rudolph W.....218 E. 8th St., Flint 3
Stroup, Clayton K.....2002 E. Court St., Flint 3
Sullivan, M. R.....2226 Concord, Flint
Sutherland, James K.....402 E. 3rd St., Flint 3
Sutton, Geo. D. (L).....303 W. Court St., Flint 3

Tauscher, John W. (A).....809 Patrick Street, Flint
Theuerle, Walter I.....3101 N. Saginaw St., Flint 5
Thompson, Charles A.....4034 Donnelly, Flint 4
Thompson, Jack W.....2702 Flushing Rd., Flint 4
Thorburn, Grant (L).....1602 W. Genesee St., Flint 4
Tofteland, Elmer H.....2765 Flushing Rd., Flint
Tower, Rita B.....702 Ballinger Rd., Flint 7
Trewin, Merle L. (A).....1014 Patrick St., Flint
Turcke, Allen F. (A).....417 W. Stewart Ave., Flint
Turner, Merald G.....601 S. Saginaw St., Flint 2
Tuuri, Arthur L.....Mott Children Clinic, Flint

Van Alst, Dennis E. (A).....2408 Missouri Ave., Flint
Van Harn, Raymond S.....1651 Detroit St., Flint 5
Varney, Howard L.....1415 Broadway, Flint 6
Vaughan, Edgar J.....Linden

Wade, Franklin V.....503 S. Saginaw St., Flint 2
Walcott, Carver G.....201 E. Carolina St., Fenton
Ward, Nell M.....503 S. Saginaw St., Flint 3
Ware, Frank A.....2765 Flushing Rd., Flint 4
Wark, David R.....1315 Detroit St., Flint 4
Weber, Robt. M.....3710 Davison Rd., Flint 6
Webster, Robt. M.....Hurley Hosp., Flint
Wentworth, John E.....1651 Chevrolet Ave. N., Flint 4
Weresh, John D. (M).....515 Birmingham, Norfolk, Virginia
Werness, Inga W. (L).....220 E. Court St., Flint 3
Wheeler, J D.....2470 Nolen, Flint
White, Carl H.....106 River St., Fenton
White, Frank T.....227 Juniper Drive, Davison
White, Herbert T. (L).....1620 Mason St., Flint
Willard, Robt. H.....718 Beach St., Flint 3
Williams, T. Wendell (A).....813 Spencer St., Flint
Williams, Wm. S.....G 3398 S. Saginaw St., Flint 7
Willoughby, L. L. (L).....1127 S. Water St., Marine City
Wills, Thos. N.....706 W. Court St., Flint 3
Winchester, Walter H. (L).....515 Genesee Bank Bldg., Flint
Wolcott, Nan D.....7506 Lapeer Rd., Davison
Woughter, Harold W.....503 S. Saginaw St., Flint 3
Wright, Donald R.....403 W. Court St., Flint
Wynia, Robert E. (A).....910 Cottage Grove Ave., Flint

Young, Charles R. (A).....1606 Robt. T. Longway, Flint

Zeis, Myron G.....718 Beach St., Flint 2

GOGEBIC COUNTY MEDICAL SOCIETY

Albert, Samuel G.....103 Suffolk St., Ironwood
Benetti, Arthur F.....Wakefield
Davidson, Donald L.....200 S. Sophie St., Bessemer
Franck, John R., Jr.....401 Sunday Lake, Wakefield
Gertz, Michael A.....109 E. Aurora St., Ironwood
Gingrich, Wayne A.....109 E. Aurora St., Ironwood
Gorilla, Allen C.....210 Suffolk St., Ironwood
Harrington, Rex R., Jr.....104 E. Ridge St., Ironwood
Keskey, Theodore J.....207 E. Aurora St., Ironwood
Lieberthal, M. J.....P.O. Box 632, Ironwood
Lieberthal, Paul R.....Box 632, Ironwood
McEnroe, John E.....7 Newport Heights, Ironwood
Santini, Florian J.....109 E. Aurora St., Ironwood
Wacek, William H.....Grand View Hospital, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE COUNTY MEDICAL SOCIETY

Beall, John G.....118 E. Front St., Traverse City
Behan, Gerald W.....Box C, Traverse City
Benjamin, Mac B.....Traverse City St. Hosp., Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Kneale M.....116 Cass St., Traverse City
Brunk, Clifford F.....Rt. 1, Box 279, Traverse City
Bushong, Benj. B.....116 Cass St., Traverse City
Cajigas, Thomas R.....J. D. Munson Hosp., Traverse City
Campbell, Thomas D.....1634 S. High St., Traverse City
Christie, Joseph.....Northport
Cline, Theodore N.....436 W. Front St., Traverse City
Cline, Warren W.....436 W. Front, Traverse City
Dundon, Arthur F., Sr.....Box C, Traverse City
Edmonds, W. T.....Munson Hosp., Traverse City
Ellis, Claude I.....Suttons Bay
Ferguson, John T.....T. C. State Hosp., Traverse City
Fishbeck, Wm. A.....622 Washington, Traverse City
Goodrich, Dwight (R)....601 W. Front St., Traverse City
Haberlein, Chas. R.....1100 Sixth St., Traverse City
Hall, James W.....1100 Sixth St., Traverse City
Hamilton, Earl E.....530 S. Union St., Traverse City
Herkner, Mildred L.....119 Barlow St., Traverse City
Hubacker, Allan.....112 Second St., Frankfort
Huene, Nevin.....110 E. Front St., Traverse City
Huston, R. R.....Elk Rapids
Jerome, Jerome T.....217 S. Madison St., Traverse City
Kamp, Robt. L.....Beulah
Kitti, Wm. W.....Kalkaska
Lemen, Charles E.....110 S. Madison, Traverse City
Lossman, Robt. T.....J. Decker Munson Hosp., Traverse City
Magill, Arthur L.....State Hospital, Traverse City
McClay, Adam C.....215 S. Madison, Traverse City
Michael, Stanley L.....Box 518, Elk Rapids
Milliken, John G.....224 Circle Dr., Traverse City
Nickels, Mervyn M.....State Hospital, Traverse City
Norconk, Alonzo A.....Empire
Osterhagen, Harold F.....12818 S. Manitou Trail, Traverse City
Osterlin, Mark F.....Childrens Clinic, Traverse City
Otto, Donald.....Munson Hosp, Traverse City
Pike, Donald G.....876 E. Front St., Traverse City
Power, Frank H.....116 Cass St., Traverse City
Ramzy, Carl O., Jr.....Box C. T. C. State Hosp., Traverse City
Randazzo, Salvatore.....Traverse City St. Hosp., Traverse City
Salon, Dayton D.....108 E. Front St., Traverse City
Schroeder, Dwight M.....Northport
Scott, John E.....536 Washington St., Traverse City
Sladek, Edward F.....123 E. Front St., Traverse City
Sommerness, M. Duane.....Traverse State Hosp., Traverse City
Sorum, F. T.....Traverse City St. Hosp., Traverse City
Steele, Wm.....210 S. Monroe, Traverse City
Steffey, Jos. C.....116 Cass Street, Traverse City
Stokes, G. Edward.....1100 Sixth St., Traverse City
Swartz, Fred G.....612 Sixth St., Traverse City
Sweeney, Bernard J.....1100 Sixth St., Traverse City
Thacker, Frederick R.....Front St., Frankfort
Thirlby, Edwin L. (L).....116 Cass St., Traverse City
Thirlby, Richard L.....228 S. Madison, Traverse City
Trautman, Frederick D.....Frankfort
Van Leuven, B. H. (R).....Empire
Wagener, Creighton A.....1100 Sixth St., Traverse City
Weih, Jack E.....118 E. Front St., Traverse City
Weitz, Harry L.....Munson Hosp., Traverse City
Wilcox, Paul H.....526 W. 10th St., Traverse City
Wiley, Philip K. (A).....116 Cass St., Traverse City
Wright, J. K., Jr.....Anderson Bldg., Traverse City
Zielke, Irwin H.....212 E. Front St., Traverse City
Zimmerman, Jos. G.....102 W. Front St., Traverse City

GRATIOT-ISABELLA-CLARE COUNTY MEDICAL SOCIETY

Aldrich, Alfred L.....Ithaca
Barstow, Donald K.....215 W. Saginaw, St. Louis
Becker, Myron G.....Edmore
Bedo, Andrew V.....906 S. Franklin, Mount Pleasant
Bergin, Jos. H.....112 E. Superior, Alma
Brenner, E. J.....610 S. College St., Mt. Pleasant
Budge, Melvin J.....1035 Jefferson, Ithaca
Burt, Clarence E.....110 S. Pine River, Ithaca
Burt, Loren G.....510 Prospect St., Alma
Chamberlain, Ray W.....608 E. Chippewa, Mt. Pleasant
Chamichian, Souren L.....117 S. College, Mt. Pleasant
Davis, Lionel L.....314 S. Brown St., Mt. Pleasant
Douglas, K. W.....St. Home & Training School, Mt. Pleasant
Drake, Wilkie M. (L).....Breckenridge
DuBois, Charles F.....706 State St., Alma
Dunlop, Donald.....301 East Fourth St., Clare
Graham, Bernard J.....Wright Hotel Bldg., Alma
Haddad, T. E.....207 N. Franklin St., Mt. Pleasant
Hall, Robt. F.....805 Douglas St., Mt. Pleasant
Hammerberg, Kuno.....622 McEwan, Clare
Harrigan, Wm. L...Isabelle State Bk. Bldg., Mt. Pleasant
Hedges, Frank W.....Post Office, Edmore
Hersee, Wm. E.....306 S. College, Mt. Pleasant
Hobbs, A. Deane.....120 N. Center St., St. Louis
Hoogerland, C. L.....236 N. State St., Alma
Hyslop, Leland F.....205 S. College Ave., Mt. Pleasant
Johnson, Frank D.....412 E. Broadway St., Mt. Pleasant
Johnson, Philip R.....206 S. College Ave., Mt. Pleasant
Juhnke, LeRoy W.....314 S. Brown St., Mt. Pleasant
Kilborn, Herbert F.....218 N. Pine River, Ithaca
Linn, Michael R.....215 W. Saginaw Ave., St. Louis
McArthur, Stewart C.....104 W. 6th St., Clare
McCoy, F. E.....611 S. Kinney St., Mt. Pleasant
Meyer, Edwin G.....510 Prospect, Alma
Oldham, Earle S.....Breckenridge
Putzig, Louis W.....Blanchard
Ratzlaff, Alvin J.....State Training School, Mt. Pleasant
Ringer, Paul H., Jr.....314 S. Brown St., Mt. Pleasant
Rottschaefer, John L.....715 Center St., Alma
Silvert, Pasche P.....Vestaburg
Veldhuis, Andrew H.....417 S. College St., Mt. Pleasant

Von Lackum, L. F.....VA Hospital, Knoxville, Iowa
Waggoner, Richard L.....St. Louis
Wallman, C. Harry.....630 State St., Alma
Wickert, Leo R.....608 E. Chippewa, Mt. Pleasant
Wilcox, Rex A.....525 State St., Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....Wright Hotel Bldg., Alma
Wood, Cornelius B.....207 N. Franklin St., Mt. Pleasant
Wood, John M.....815 E. Maple St., Mt. Pleasant

HILLSDALE COUNTY MEDICAL SOCIETY

Bates, Morton P.....110 S. Manning, Hillsdale
Davis, Lloyd A.....Camden
Davis, William B.....57 Charles St., Hillsdale
Day, Luther W.....Grosvener Bank Bldg., Jonesville
Hanke, Geo. R. (L).....Osseo
Hodge, Chas. L.....Reading
Hughes, Henry F. (L).....Hillsdale P.O., Cambria
MacNeal, John A.....379 S. Broad, Hillsdale
Mattson, H. Frazyer.....32 S. Broad St., Hillsdale
Peterson, Carl A.....32 Broad St., Hillsdale
Sawyer, Walter W.....61 N. Howell St., Hillsdale
Stein, Arthur J.....144 Budlong St., Hillsdale
Strom, Arthur W.....32 S. Broad St., Hillsdale
Trapp, Donald G.....32 S. Broad St., Hillsdale
Wessels, Fredk. M.....379 S. Broad, Hillsdale
Wiggins, Ira W.....Jonesville

HOUGHTON-BARAGA-KEWEENAW COUNTY MEDICAL SOCIETY

Aldrich, Addison B.....325 Harris Ave., Hancock
Aldrich, Leonard C.....301 Quincy St., Hancock
Bourland, Philip D. (L).....134 Calumet Ave., Calumet
Bourland, Philip E. M. (M).....(No Address)
Brewington, Geo. F. (L).....1805 Walnut Ave., Las Vegas, Nev.
Burke, John J. (L).....Box 449, Hubbell
Hillmer, Raymond E. (L).....Painsdale
Hosking, Fredk. S.....320 Calumet St., Lake Linden
Janis, Anton J.....208 Quincy St., Hancock
Kirton, J. R. W. (L).....106 Sixth St., Calumet
Kolb, Fredk. E.....128 Calumet Ave., Calumet
LaBine, Alfred (L).....Masonic Bldg., Houghton
Larson, Forrest W.....322 Shelden, Houghton
Lepisto, Victor E.....238 Quincy St., Hancock
Levin, Simon (L).....1209 College Ave., Houghton
Meier, Maurice D.....1033 Mine St., Calumet
Murphy, Percy J.....VA Hospital, Tomah, Wis.
Nolan, Lewis E.....108 Center St., Hancock
Potter, Earl C.....Baraga County Mem. Hosp., L'Anse
Repola, Kenneth L. (A).....General Delivery, Laurium
Roche, Andrew M.....221 5th St., Calumet
Sandell, Samuel T.....400 Cooper St., Hancock
Sloan, Paul S.....609 Sheldon Ave., Houghton
Smith, Chas R. (R).....E. White St., Hancock
Stroube, John A.....522 W. Third, L'Anse
Wickliffe, John T. P.....219 Sixth St., Calumet
Williams, Marshall S.....St. Joseph's Hosp., Hancock
Winkler, Henry J.....Box 461, L'Anse

HURON COUNTY MEDICAL SOCIETY

Bash, Theodore L.....150 E. Kinde Rd., Kinde
Dixon, Ralph C.....Box 77, Pigeon
Elliott, Chas. S.....Pigeon
Gettel, Roy R.....Bad Axe
Herrington, Chas. I.....Bad Axe
Herrington, Willet J.....Bad Axe
Oakes, Chas. W., Jr.....Harbor Beach
Ritsema, John.....6 W. Main, Sebewaing
Scheurer, Clare A.....Pigeon
Sorensen, Maurice G.....P.O. Box, Elkton
Steinhardt, Edward E.....Box 15, Elkton
Turner, Phillip R.....321 S. Fourth St., Harbor Beach
Wible, Chas. F., Jr.....Sebewaing
Willits, Robert A.....165 N. Main St., Elkton

INGHAM COUNTY MEDICAL SOCIETY

Agate, Geo. H.....Mich. Dept. Health, Lansing 4
Aiken, Donald J.....5001 Mohawk Rd., Okemos
Alexander, Reuben G.....301 Seymour Ave., Lansing 15
Altland, J. K.....Mich. Dept. Health, Lansing 4
Arnett, Donald L. (A)....Wayne Co. Gen. Hosp., Eloise
Asselin, David C.....914 Prudden Bldg., Lansing
Badgley, Waldo O.....M.O. Box 756, Lansing 6
Baker, Thos. C.....M.O. Box 756, Lansing 6
Basel, Arthur R.....310 Franklin St., Grand Haven
Bassett, Robt. C.....603 S. Capitol Ave., Lansing
Bates, Richard.....1820 E. Michigan Ave., Lansing
Bauer, Theodore I.....810 Mich. Nat. Tower, Lansing
Behen, Wm. C.....535 S. Capitol Ave., Lansing 33
Behney, Charles A.....Mich. Dept. Health, Lansing 4
Bellinger, Ernest G. (L).....Masonic Home, Alma
Berens, Burdette M.....110 N. Rosemary St., Lansing 17
Berge, Richard E. (M).....Fort Sheridan, Illinois
Bergeon, Milton C.....302 S. Steele St., Mason
Bevez, Frank L.....3209 S. Cambridge Rd., Lansing
Bingham, B. Wayne.....125 W. Saginaw, Lansing 15
Black, Chas. E.....112 W. Allegan, Lansing
Black, Gertrude C. K...529 W. Grand River, Williamston
Bleil, Eugene E.....408 N. Capitol Ave., Lansing
Bradford, Carl W.....301 Seymour, Lansing
Breakey, Robt. S. (R).....520 Westmorland, Lansing
Briggs, James.....1964 S. Cedar St., Holt
Brown, Fred. W., Jr.....706 Britten Ave., Lansing 17
Brown, Joseph C.....790 E. Columbia, Mason
Brubaker, Earl W...103 N. Washington Ave., Lansing 16
Burhans, Robt. A.....810 Mich. Nat'l. Tower, Lansing
Cairns, Donald A.....136 W. Ash St., Mason
Calomeni, Anthony D.....309 Seymour Ave., Lansing 15
Carlson, Ralph G.....3526 W. Saginaw St., Lansing
Carr, Earl I.....1915 Moores River Dr., Lansing 10
Caruso, Joseph A.....1437 E. Michigan Ave., Lansing
Casey, Byron L.....201 Mac, East Lansing
Chao, Yu Hua (A).....St. Lawrence Hosp., Lansing
Chaskes, Marian I. G.....226 S. Capitol Ave., Lansing 25
Cheney, Wm. D.....Sparrow Hosp. X-Ray, Lansing
Christian, Leo G.....108 E. St. Joseph St., Lansing 15
Clark, Wm. E.....136 W. Ash St., Mason
Clinton, Geo. R.....618 S. Jefferson St., Mason
Combs, Robert G.....1023 E. Michigan Ave., Lansing 12
Comstock, H. C.....1031 E. Michigan Ave., Lansing 12
Cook, Raynold J.....105 S. Jenison, Lansing 15
Cope, Henry E.....Mich. Dept. Health, Lansing 4

Cordes, Jerome F.....512 Mich. Nat'l Tower, Lansing
Corneliuson, G. B.....Mich. Dept. of Health, Lansing
Cowan, John A.....825 Touraine, East Lansing
Cummings, Geo. D.....Mich. Dept. Health, Lansing 4
Darling, Lewis H.....115 W. Hillsdale St., Lansing 15
Dart, Dorothy O...Ypsilanti St. Hosp., Box A, Ypsilanti
Dawe, C. D.....935 Rosewood, East Lansing
Dean, Carleton.....106 W. Allegan St., Lansing 8
DeVries, Corydon F.....320 Townsend St., Lansing 15
Dexter, M. J.....229 E. Maple, Mason
Drolett, Alfred J. (L)....900 Prudden Bldg., Lansing 16
Drolett, Donald J.....108 Division St., East Lansing
Drolett, Lawrence A.....3526 W. Saginaw St., Lansing 17
Dunkel, John F.....Edw. W. Sparrow Hosp., Lansing
Dunn, Forest M.....301 Seymour Ave., Lansing 33
Ellis, Bertha W. (R)....P.O. Box 216, Pt. Blakely, Wash.
Ellis, Chas. W. (L)....P.O. Box 216, Pt. Blakely, Wash.
Feeney, Kenneth J...1908 Mich. Nat'l Tower, Lansing 15
Feurig, James S.....321 Kensington, East Lansing
Finch, Russell L.....420 S. Walnut St., Lansing 33
Folkers, Leonard M.....234 Michigan Ave., East Lansing
Fortino, Silvio P.....203 Bauch Bldg., Lansing
Fosget, Wilbur W.....210 E. Hillsdale St., Lansing 33
French, Horace L.....301 Seymour St., Lansing 15
Fryer, Douglas H.....Mich. Dept. Health, Lansing 4
Garlinghouse, A. J., Jr...408 N. Capitol Ave., Lansing 33
George, Harry C.....335 Seymour St., Lansing 33
Goldner, Roy E.....1318 S. Washington Ave., Lansing 10
Govons, Sidney R.....408 N. Capitol Ave., Lansing 33
Grey, Anna B.....219 Oakland Dr., East Lansing
Kent, A. Edith Hall.....Box 1167, Lansing
Hames, R. E.....119 E. Grand River Ave., East Lansing
Hanna, Roger J.....2698 Heather Dr., East Lansing
Harris, Herbert W...609 N. Washington Ave., Lansing 15
Harrison, Wm. H.....834 W. St. Joseph St., Lansing 15
Harrold, Jesse F.....326 W. Ionia, Lansing 33
Hart, Lloyd C.....119 W. Lenawee St., Lansing 33
Hatton, R. L.....1218 Theodore, Lansing
Hautau, Emily R.....308 Highland Ave., East Lansing
Hayes, Robert E.....1101 S. Washington, Lansing 10
Hayford, Wm. D.....1028 E. Saginaw St., Lansing
Heald, Gordon H.....830 Walbridge, East Lansing
Heckert, Frank B...1105 Bank of Lansing Bldg., Lansing
Heckert, Jos. K.....1105 Bank of Lansing Bldg., Lansing
Heerdt, Mark E.....201 W. Hillsdale, Lansing
Henderson, Norman D.....826 Sunset Lane, East Lansing
Henry, Robert A...1515 W. Mt. Hope Ave., Lansing 15
Hermes, Edgar J.....604 W. Willow St., Lansing
Heustis, Albert E.....410 Cowley, East Lansing
Himmelberger, R. J.....227 West St., Lansing 15
Hiscoe, D. Bonta.....326 Townsend St., Lansing
Hoffer, W. E.....331 Shepard St., Lansing
Hogg, Raymond E. (A).....Dept. Ophth., U. of M., Ann Arbor
Holland, Chas. F.....125 W. Saginaw St., Lansing
Horvath, Francis (A).....St. Lawrence Hosp., Lansing
Hoyt, John C. (A).....St. Lawrence Hosp., Lansing
Huggett, Clare C.....122 W. Grand River Ave., Lansing
Hurth, M. S.....1717 Jerome St., Lansing
Imeson, Elizabeth W.....Edw. Sparrow Hosp., Lansing
Isbister, J. L.....Dept. Health, DeWitt Rd., Lansing
Jacob, S. Sprigg, III.....201 Ann St., East Lansing
Jakacki, Richard (A).....(No Address)
Johnson, David B.....1211 Bank of Lansing, Lansing
Johnson, Henry T. (N)....P.O. Box 2289, Phoenix, Ariz.
Johnson, Kenneth H.....1116 Mich. Nat'l Tower, Lansing
Johnson, Reed P. (A)....139 S. 18th Ave., Maywood, Ill.
Johnson, Richard.....521 N. Capitol Ave., Lansing
Jones, Francis A., Jr.....716 Mich Nat'l Tower, Lansing
June, Robert C.....426 S. Walnut St., Lansing 33
Kahn, David.....401 Am. Bank & Trust, Lansing
Kalmbach, Roland E.....301 Seymour Ave., Lansing 15
Katlein, Stanley (M).....510 Greenwood Dr., Akexandria, La.
Kelly, William.....Cass Bldg., Lansing
Kent, Herbert K.....M.O. Box 1167, Lansing 13
Kenyon, Fanny H.....624 LaSalle Blvd., Lansing 12
Klunzinger, W. R.....326 W. Ionia St., Lansing 33
Kozak, Jerome S.....609 N. Washington Ave., Lansing
Kraft, Lester C.....209 S. Main St., Leslie
Lange, Philip F.....1923 S. Cedar St., Lansing 10
Lanting, Helen E. P.....231 N. Jenison St., Lansing 15
Larson, Homer I.....1236 N. Downer Dr., Lansing
Lauzun, Virginia D.....309 W. Main St., Lansing 15
Le Duc, Don M.....317 W. St. Joseph St., Lansing 31
Leeder, Fredk. S.....Mich. Dept. Health, Lansing 4
Leshock, Jos. C.....1437 E. Michigan St., Lansing 12
Letourneau, Roger A.....215 N. Walnut St., Lansing
Levett, Harry L.....117½ W. Shiawassee, Lansing 30
Lewis, Clayton, Jr.....903 E. Grand River, East Lansing
Linnell, Paul C.....4378 W. Delhi St., Holt
Long, Chas. O., Jr.....1715 Roseland, East Lansing
Lopez, Jose (A).....St. Lawrence Hosp., Lansing
Loree, Maurice C.....120 W. Hillsdale St., Lansing 15
Loughrin, T. D.....335 Seymour, Lansing
Lucas, Thos. A.....426 W. Ottawa St., Lansing 15
Ludlum, Lewis C.....1126 W. Saginaw St., Lansing 15
Mahue, Louis Dale.....2935 Grandell, Lansing 6
Malcolm, Henry E.....401 W. Grand River, East Lansing
Mannausa, L. R. (A).....18666 Appoline, Detroit 35
Martin, Wayne O.....4765 Nakoma Dr., Okemos
Marzolf, M. Finette.....300 W. Ottawa, Lansing 33
Mavromatis, Fedon (A)....St. Lawrence Hosp., Lansing
McConnell, Elmer G. (R).....212 Leslie St., Lansing
McCorvie, C. Ray..903 E. Grand River Ave., E. Lansing
McCorvie, Donald R...129 E. Grand River, Williamston
McElmurry, Leland R.....209 N. Walnut St., Lansing 15
McGillicuddy, O. B.....1816 Mich. Nat'l Tower, Lansing
McGillicuddy, R. J.....300 W. Ottawa St., Lansing 15
McIntyre, J. Earl (L)....600 S. Grand Ave., Lansing 33
McNamara, B. E.....326 Townsend St., Lansing 15
Meade, Wm. H.....535 Ardson Rd., East Lansing
Melick, Richard C.....326 W. Ionia, Lansing 33
Menzies, Clifford G.....MSU Health Center, East Lansing
Mercer, Walter E.....909 Glenhaven, East Lansing
Miller, Willard J.....930 N. Washington, Lansing
Monfort, Robert N.....MSU Health Center, East Lansing
Morris, Leo C. (A).....St. Lawrence Hosp., Lansing
Morrow, Robert J.....412 N. Capitol, Lansing
Nadeau, John H. (M).....610th TAC Hosp., USAFE, APO 109, New York, N. Y.
Nakfoor, Eugene C.....1515 W. Mt. Hope, Lansing
Neering, James C.....1210 W. Saginaw, Lansing 15
Neuman, John R.....3526 W. Saginaw, Lansing
Newitt, A. W.....Ingham Co. Health Dept., Lansing
Nieuwkerk, Willem (A).....St. Lawrence Hosp., Lansing
Niland, Paul T.....1308 Old Hickory Lane, East Lansing
Nobel, Rudolf E.....607 S. Capitol, Lansing
Ochsner, Paul J.....Fisher Body Corp., Lansing 4
Packer, John H.....1023 E. Michigan Ave., Lansing
Paine, Wm. G.....1028 E. Saginaw St., Lansing
Palmer, R. E.....535 S. Capital Ave., Lansing
Parker, Earl E.....207 E. Bellevue, Leslie
Peets, Ronald.....Grand River & Grandview, Okemos
Philips, David P.....333 N. Chestnut, Lansing 15
Pinkham, Ray A. (R)....535 N. Capitol Ave., Lansing 33
Plesscher, Wm. H. (A)....659 Withington Ave., Ferndale
Pomeroy, Richard W.....609 N. Washington, Lansing 33
Ponton, Jos. C.....Box 230, Mason
Poppen, Clarence J.....1057 Roxburgh Rd., East Lansing
Prall, Harry J.....214 W. Main St., Lansing 33
Pung, Elba Molina.....1512 E. Michigan, Lansing
Randall, O. M. (R)..7557 W. Saginaw, R.R. 1, Lansing
Rector, F. L. (R).....2835 N.E. Brazee Ct., Portland 12, Ore.
Reed, O. Grant.....202 N. Hagadorn Rd., East Lansing
Reynolds, Edward E.....Rt. 2, Box 18, Williamston
Richards, Frank D.....1028 E. Saginaw St., Lansing
Richardson, Maurice L...1215 E. Mich. Ave., Lansing 12
Robson, Edmund J.....215 N. Walnut St., Lansing 15
Roland, C. B. (M).....616 Air Control & Warning Sig., APO 35, New York, N. Y.
Rollstin, Robert A.....1014 Townsend St., Lansing 21
Rozan, Josef S.....103 N. Washington Ave., Lansing 16
Ruhmkorff, R. H.....MSU Health Service, East Lansing

Rutledge, Sam'l H., Jr...110 W. Hillsdale St., Lansing 33
Saenz, Hugo R. .....1718 Loraine Ave., Lansing 10
Sander, John F.....4780 Okemos Rd., Okemos
Scallin, J. F.....125 W. Saginaw St., Lansing
Scheidt, R. Rudolph..126 W. Gd. River Ave., Lansing 6
Schmidt, Harry J.....902 Mich. Nat'l Tower, Lansing
Schultz, Arthur E.....4646 Ottawa Dr., Okemos
Seger, Fred L. (L).....1035 Cherry St. N.E., St. Petersburg 4, Fla.
Shapiro, Hyman D.....201 W. Hillsdale St., Lansing 33
Sharp, Mahlon S.....521 N. Capitol, Lansing 33
Shaw, Milton.....320 Townsend St., Lansing 15
Sherman, Geo. A.....112 W. Hillsdale, Lansing 15
Sichler, Harper G.....301 Seymour Ave., Lansing 15
Siegel, David.....1211 Bank of Lansing Bldg., Lansing
Sikkema, Wesley W. (A).....(No Address)
Silverman, Irving E.....1009 E. Michigan, Lansing 12
Sleight, Justin L.....117 W. Shiawassee St., Lansing 15
Smith, Anthony V.....116 W. Sycamore, Mason
Smookler, Bernard H.....1139 Gould Rd., Lansing
Snyder, Le Moyne.....P.O. Box 1125, Paradise, Calif.
Snyder, Ruth C. E.....234 W. Mich. Ave., East Lansing
Spagnuolo, Alfred J.....1418 S. Logan, Lansing
Spalding, R. W.....Box 900, Lansing
Spencer, Perry C.....320 Townsend St., Lansing 15
Stanley, Arthur L.....2601 S. Washington Ave., Lansing
Stehman, Vernon A.....Lewis Cass Bldg., Lansing
Steiner, Abraham A. (R).....Wacousta
Stephan, Winton E.....301 Seymour, Lansing
Stilwill, Geo. D. (A)....185 Grandview, Hamden, Conn.
Stimson, Paul R.....515 S. Grand, Lansing 33
Stone, Benj. J.....1031 E. Michigan, Lansing 12
Stow, Robert M.....512 Mich. Nat'l Tower, Lansing
Strauss, Percival C.....3813 W. Willow, Lansing
Stringer, C. J.....401 W. Greenlawn Ave., Lansing 9
Sundell, Edwin C.....1028 E. Saginaw, Lansing
Swartz, Fredk. C.....500 Kedzie Dr., East Lansing
Tamblyn, Fred. W.....335 Seymour Ave., Lansing 33
Thaden, D. W.....208 Mac Ave., East Lansing
Thimmig, Robert F.....326 Townsend St., Lansing
Tien, Hsin Chen..124 W. Gd. River Ave., East Lansing
Toothaker, Kenneth W...1609 W. Michigan, Lansing 15
Trager, Fredk. C.....933 Northlawn, East Lansing
Trescott, Robert F.....716 Mich. Nat'l Tower, Lansing
Trimby, Robert H.....1512 E. Broward Blvd., Fort Lauderdale, Fla.
Troost, Franklin L.....4378 W. Delhi Rd., Holt
Urban, Eva.....540 Glenmoor, East Lansing
Vanderzalm, T. P.....1452 Cambridge Rd., Lansing 15
Venier, Jos. H.....544 Division, East Lansing
Wadley, Ralph.....335 Seymour Ave., Lansing 33
Wainright, James W.....215 N. Walnut St., Lansing
Walker, Leo W.....1302 Pershing Dr., Lansing 10
Wellman, John M.....301 Seymour Ave., Lansing 33
Wilensky, Thos.....201 W. Hillsdale, Lansing 33
Wilker, Richard F. (A).....21 S. Johnson, Pontiac
Willson, Howard S.....704 Mich. Nat'l Tower, Lansing 8
Wolcott, Lester E.....3555 W. Arbutus, Okemos
Worthington, Ralph.....717 Britten Ave., Lansing 15
Zick, Gerald A.....122 W. Hillsdale St., Lansing

IONIA-MONTCALM COUNTY MEDICAL SOCIETY

Anderson, D. Hess.....207 Bridge St., Portland
Bird, Wm. L.....110 W. Cass St., Greenville
Birzgalis, Alfreds A.....Ionia State Hosp., Ionia
Buck, Jack H.....118 N. Jefferson, Ionia
Bunce, Earl P. (L).....Trufant
Bunce, Leo. W.....Trufant
Campbell, Richard E.....340 E. Main St., Ionia
Dunkin, Lloyd S.....410 S. Clay St., Greenville
Fleming, John W. C. (L).....Pewamo
Foust, Jos. C.....(No Address)
Fox, Harold M.....Portland
Geib, Oscar P. (L).....Carson City
Glerum, John B.....507 S. Lafayette St., Greenville
Halick, John.....200 S. Franklin, Greenville
Hansen, Carl M.....Stanton
Hansen, Marco M.....127 S. Lafayette St., Greenville
Haskell, Robert H. (L).....315 S. 5th Ave., Ann Arbor
Hoffs, Marinus A.....Shellborn Bldg., Lake Odessa
House, Glenn W., Jr.....507 S. Lafayette St., Greenville
Kazmers, Nikolas .....Lakeview
Kopchick, Jos. .....Muir
Kozachik, Martin J.....123 Bridge St., Portland
Kwast, Harold A. (M).....123 Bridge St., Portland
Leider, Thos. R.....230½ W. Main St., Ionia
Lilly, Isaac S. (L).....Stanton
London, John L.....Lakeview
Marston, Leo L.....Box 235, Lakeview
Minich, Wm. G.....337 Richard Terr. S.E., Grand Rapids
Naglins, Jekabs.....Ionia State Hosp., Ionia
Olsen, Bruce C.....110 W. Cass St., Greenville
Pates, Don C.....Belding
Peabody, Chas. H. (L).....33 Wildfern Dr., Youngstown, Ohio
Reid, Harold E.....Stanton
Rice, Robert E.....P.O. Box 271, Greenville
Robertson, Perry C. (L).....327 Center St., Ionia
Slagh, Milton E.....Saranac
Smith, Robert O.....724 Roselawn, Ionia
Socha, Edmund S.....217 E. Main, Ionia
Stevens, Charles E.....513 N. Lafayette, Greenville
Tannheimer, John F.....525 Lafayette St., Ionia
Tromp, Jack L.....R.D. 3, Lake Odessa
Van Loo, Jacob.....103 E. Washington St., Belding

JACKSON COUNTY MEDICAL SOCIETY

Adams, Ellis W.....517 Wildwood Ave., Jackson
Ahronheim, J. H.....Foote Mem. Hosp., Jackson
Appel, Saul.....112 W. Michigan Ave., Jackson

Baker, Geo. M.....350 S. Union, Parma
Beckwith, Sidney A.....100 E. Main St., Stockbridge
Bentley, Jack P.....404 McNeal St., Jackson
Bentley, Mary E. N.....404 McNeal St., Jackson
Brashares, Zane A.....Brooklyn
Bullen, G. R.....418 Third St., Jackson

Clarke, Corwin S. (L).....1046 4th St., Jackson
Cook, Geo. H.....10830 Bunker Hill Rd., Jackson
Cooley, Chas. W.....Mercy Hosp., Jackson
Cooley, Randall M. (L).....141 E. Robinson St., Jackson
Corley, Cecil.....204 Homecrest Rd., Jackson
Corley, Ennis H.....3923 Kathmar Dr., Jackson
Corley, Robert W.....204 Homecrest Rd., Jackson
Cox, Ferdinand (L).....1601 4th St., Jackson
Culver, Guy D. L. (A).....P.O. Box 38, Stockbridge

Daly, Byrne M.....709 Oakridge Dr., Jackson
Davenport, Bruce.....134 E. Main St., Spring Arbor
DeMay, Cuthbert E.....403 E. Michigan Ave., Jackson
DeMay, John D.....403 E. Michigan Ave., Jackson
Deming, Richard C.....724 W. Franklin, Jackson
Dengler, Chas. R.....504 3rd St., Jackson
Dickman, Harry M.....120 N. Church St., Hudson
Douglas, Edward W. (L).....468 Fourth Ave., New Kensington, Penna.
English, David C.....604 W. Michigan, Jackson
Filip, Hypolit K., Jr.....755 W. Michigan Ave., Jackson
Finton, Robert E.....610 W. Michigan, Jackson
Finton, Walter L. (L).....1502 Carlton Blvd., Jackson

Foust, Wm. L.....219 E. Michigan, Grass Lake
Garlock, Grant L. (A).....314 Homecrest, Jackson
Gibson, Frank J. (L).....(No Address)
Greenbaum, Harry.....1203 Greenwood Ave., Jackson
Growt, Bowers H.....Addison
Hackett, Thos. L.....519 N. East Ave., Jackson
Habenicht, Hilda A.....718 Glenwood St., Jackson
Hanft, Cyril F.....144 E. Main St., Springport
Hanson, Victor R.....Chelsea
Hardie, Geo. C.....290 W. Michigan Ave., Jackson
Hicks, Glenn C. (L).....1009 Wildwood Ave., Jackson
Holst, John B.....606 City Bank Bldg., Jackson
Holstein, Arthur P.....724 W. Franklin, Jackson
Hunt, Maurice E.....2534 Francis St., Jackson
Huntley, W. B. (L).....770 32nd Ave. S., Lot 5, St. Petersburg 5, Fla.
Joerin, Wm. A.....612 First St., Jackson
Karr, Jean P.....502 W. Michigan Ave., Jackson
Keefer, Albert H.....Concord
Kempton, Geo. B.....511 S. West Ave., Jackson
Kiessling, A. J., Jr.....511 S. West Ave., Jackson
Kline, Starr L. (L).....3525 Jefferson Rd., Clark Lake
Kobs, Robert J.....608 W. Michigan Ave., Jackson
Kudner, Donald F.....435 Wildwood Ave., Jackson
Lake, Edward C.....612 1st St., Jackson
Landron, Daniel.....4633 Page, Michigan Center
Latchaw, Wm. R.....924 Cooper St., Jackson
Lenz, Chas. R., Jr.....405 1st St., Jackson
Lewis, Elmore F.....1112 Carlton Blvd., Jackson
Linden, Victor E.....112 W. Michigan Ave., Jackson
Ludwick, John E.....237 W. Washington Ave., Jackson
Ludwick, John P.....237 W. Washington, Jackson
Luh, E. F.....2834 Francis St., Jackson
McGarvey, Wm. E.....161 W. Michigan Ave., Jackson
McLaughlin, John M.....710 S. Brown St., Jackson
McLaughlin, Miar J. (L).....710 S. Brown St., Jackson
McLauthlin, H. B.....439 Wildwood Ave., Jackson
Meads, Jason B.....161 W. Michigan Ave., Jackson
Medlar, Robert E.....719 Seventeenth St., Jackson
Morelli, Lorenzo.....401 W. Prospect St., Jackson
Muhich, Ralph A.....1204 First St., Jackson
Munro, Colin D. (L).....740 W. Michigan, Jackson
Munro, James E. (L).....1015 Pigeon St., Jackson
Munro, Nathan D.....740 W. Michigan Ave., Jackson
Murphy, Bernard M.....1134 E. Ganson St., Jackson
Newton, Ray E.....180 W. Michigan Ave., Jackson
Oleksy, Stanley P.....744 W. Michigan, Jackson
Olsen, Lloyd L.....610 W. Michigan Ave., Jackson
Oster, Harold L.....1218 Greenwood Ave., Jackson
Otis, Grant L.....525 Wildwood Ave., Jackson
Papadopulos, Valentina..1111 E. Michigan Ave., Jackson
Payne, Andrew K.....Foote Memorial Hosp., Jackson
Phillips, Geo. H.....Jackson Co. TB San., Jackson
Porter, Horace W.....505 Wildwood Ave., Jackson
Pray, Frank F. (L).....310 Steward Ave., Jackson
Pray, Geo. R. (L).....404 S. Jackson St., Jackson
Preston, Joseph A.....Mercy Hospital, Jackson
Rice, John W.....421 McNeal St., Jackson
Ries, Richard G.....612 First St., Jackson
Riley, Philip A.....500 S. Jackson St., Jackson
Riley, Philip A., Jr.....500 S. Jackson St., Jackson
Sargent, Leland E.....Foote Mem. Hosp., Jackson
Sautter, Wm. A.....Horton
Schmidt, T. E.....180 W. Michigan, Jackson
Scott, John A., Jr.....432 W. Michigan, Jackson
Shaeffer, Arthur M.....1615 Carlton Blvd., Jackson
Shaeffer, Leland D.....1615 Carlton Blvd., Jackson
Sher, David B.....4000 Cooper St., Jackson
Sill, Henry W.....724 W. Michigan Ave., Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W.....500 W. Michigan Ave., Jackson
Southwick, W. A.....130 Maple St., Springport
Stackable, Wm. R.....439 Wildwood Ave., Jackson
Stewart, Lewis L., Jr.....180 W. Michigan, Jackson
Stewart, Lewis L. (L).....308 Edgewood St., Jackson
Stolberg, Carl A.....724 W. Franklin, Jackson
Stone, Ethon L.....721 Seventeenth St., Jackson
Sugar, Sam'l.....180 W. Michigan Ave., Jackson
Tate, Cecil E.....1315 Francis St., Jackson
Taylor, Ross V.....517 Wildwood Ave., Jackson
Thalner, Leonard F.....609 W. Michigan Ave., Jackson
Thayer, Earl A.....120 W. Michigan Ave., Jackson
Thompson, T. B.....434 Wildwood Ave., Jackson
Torwick, Edward T.....112 W. Michigan Ave., Jackson
Townsend, James W...108 Hague Ave., Vandercook Lake
Van Schoick, Frank.....419 W. High St., Jackson
Van Schoick, John D.....Hanover
Van Wagnen, F. I., Jr.....434 Wildwood Ave., Jackson
Vivirski, Edward E.....603 S. Elm Ave., Jackson
Weddon, Edward R.....R.D. 2, Stockbridge
Wholihan, John W.....604 W. Michigan Ave., Jackson
Wickham, Woodward A.....435 Wildwood Ave., Jackson
Wille, Warren S.....1204 First St., Jackson
Winter, Geo. E. (L).....2333 22nd St. S., St. Petersburg 5, Fla.
Young, Allan G.....118 Moore St., Jackson

KALAMAZOO ACADEMY OF MEDICINE

Aach, Hugo A.....3314 Bronson Blvd., Kalamazoo 37
Alexander, C. A.....118 W. North St., Kalamazoo
Andrews, Sherman E.....224 E. Cedar St., Kalamazoo 8
Angell, Howard H. (A)..301 Henrietta St., Kalamazoo
Anglin, Walter M. (A).....R.R. 2, Box 300, Richland
Appel, Ben A.....252 E. Lovell, Kalamazoo
Appel, Wm. P.....252 E. Lovell, Kalamazoo
Appell, Lloyd E.....126 N. Kalamazoo Ave., Vicksburg
Armstrong, Robt. J.....103 N. Burdick St., Kalamazoo 1
Banner, Lawrence R.....507 S. Burdick St., Kalamazoo
Barak, Herbert G.....350 S. Burdick St., Kalamazoo
Barrows, Winona M.....1500 Blakslee St., Kalamazoo
Barry, Manley L.....Plainwell San., Plainwell
Bennett, Keith F.....252 E. Lovell, Kalamazoo
Berglund, V. A.....6646 Portage Rd., Kalamazoo
Betz, Eldean G.....252 E. Lovell, Kalamazoo
Birch, Wm. G.....252 E. Lovell, Kalamazoo
Bodmer, Harvey C...403 W. Kalamazoo Ave., Kalamazoo
Bond, Glenn C. (A).....301 Montrose, Kalamazoo
Borgman, Wallace.....420 W. John St., Kalamazoo 46
Boyd, Robert E.....302 Bronson Med. Center, Kalamazoo
Breneman, James C.....Galesburg
Brown, Irmel W.....107 W. Michigan Ave., Kalamazoo
Brue, Peter P.....1009 Cambridge Dr., Kalamazoo
Burbidge, Earl L.....359 Park Ave., Parchment 15
Burrell, Robert B.....1711 Merrill St., Kalamazoo
Caldwell, Clyde T., Ph. D. (A).....2112 Sheffield Dr., Kalamazoo
Callander, C. Glen.....252 E. Lovell, Kalamazoo
Cartland, Geo. F., Ph.D. (A).....1704 Dover Rd., Kalamazoo
Cashen, Russell M.....252 E. Lovell, Kalamazoo
Chrest, Clarence P.....458 W. South St., Kalamazoo
Clement, F. L.....420 John St., Kalamazoo
Cobb, Horace R.....3403 Knox St., Kalamazoo
Conger, T. W., Ph.D. (A).....Upjohn Co., Kalamazoo
Conrad, Maynard M.....252 E. Lovell, Kalamazoo
Cook, Ralph G. (L).....615 Clinton St., Kalamazoo
Cooper, Paul F.....4326 Oakland Dr., Kalamazoo
Crane, Warren B.....Rte. 1, Richland
Crawford, Kenneth L.....612 Douglas, Kalamazoo
Crawford, Porter F. (A).....Box 831, Kalamazoo
Creager, Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Francis C.....224 E. Cedar St., Kalamazoo
Currier, Richard K.....6646 Portage Rd., Kalamazoo
Dahlstrom, Doris E...723 S. Westnedge Ave., Kalamazoo
Dana, Robert L.....228 W. Cedar St., Kalamazoo
Decker, Wm. A.....1145 Oakland Dr., Kalamazoo
Delbert, Stewart G.....914 S. Burdick St., Kalamazoo
DeLong, Robert E.....2215 Crane Ave., Kalamazoo

DePree, Harold E.....252 E. Lovell, Kalamazoo
Dew, Robert R.....1711 Merrill St., Kalamazoo
DeWitt, Norman L.....103 N. Burdick, Kalamazoo
Dick, Leo A.....428 Stuart Ave., Kalamazoo
Doezema, Edward R.....516 Whites Rd., Kalamazoo
Dowd, Bennard J.....1415 Henderson Dr., Kalamazoo
Doyle, Fredk. M.....3320 Bronson Blvd., Kalamazoo 37
Dugger, James A.....2901 S. Westnedge, Kalamazoo
Endrei, Arisztid.....1312 Oakland Dr., Kalamazoo
Estill, Don V.....414 W. Patterson St., Kalamazoo
Fancher, James A. (A)....301 Henrietta St., Kalamazoo
Fath, August F.....1711 Merrill, Kalamazoo
Ferguson, Robert K.....1324 S. Park, Kalamazoo
Finton, Max A.....252 E. Lovell, Kalamazoo
Flunt, Roman....Box A, Kalamazoo St. Hosp., Kalamazoo
Fopeano, John V.....1711 Merrill St., Kalamazoo
French, Merle R.....1128 Miles Ave., Kalamazoo
Fulkerson, Clark B. (L)....425 S. Westnedge, Kalamazoo
Fuller, Paul M.....1700 Gull Rd., Kalamazoo
Gardner, Carl A...1410 American Nat'l Bank, Kalamazoo
Gerstner, Louis W.....2425 Law Ave., Kalamazoo
Gladstone, Wm. S.....458 W. South St., Kalamazoo
Glaser, Daniel F.....463 Academy St., Kalamazoo
Goodhue, Lolita G.....2503 W. Main St., Kalamazoo
Grant, Fredk. E. (L).....214 Douglas Ave., Kalamazoo
Green, Wm. L.....136 E. Michigan Ave., Kalamazoo 4
Grekin, Robert H.....136 E. Michigan Ave., Kalamazoo
Gremel, Norman.....458 W. South St., Kalamazoo
Haddock, D. A., Jr.....6646 Portage St., Kalamazoo
Hailman, Harold F.....301 Henrietta, Kalamazoo
Hammer, John M.....100 Maple St., Parchment
Hanson, Curtis M.....252 E. Lovell, Kalamazoo
Harrell, Frank G.....420 John St., Kalamazoo
Harrelson, Wm. D.....1324 S. Park, Kalamazoo
Harvey, Donald A. (A).....2308 Crane Ave., Kalamazoo
Hayner, Russell A.....4015 Portage, Kalamazoo
Heersma, H. Sidney.....1711 Merrill St., Kalamazoo
Heinle, Robert W.....Med. Div., Upjohn Co., Kalamazoo
Herbert, Walter N.....1223 S. Park St., Kalamazoo
Hersey, E. Freeman.....516 Whites Rd., Kalamazoo
Hersey, Margaret S.....4407 Bronson Blvd., Kalamazoo
Hildreth, Roscoe C.....458 W. South St., Kalamazoo 46
Hodgman, Albert B.....1601 Grand Ave., Kalamazoo
Hoebeke, Wm. G.....252 E. Lovell, Kalamazoo
Holder, Chas. O.....1312 Oakland Dr., Kalamazoo
Howard, R. Grant.....2025 Chevy Chase, Kalamazoo
Howard, Willard H.....1602 Gull Rd., Kalamazoo
Hubbard, Edwin M.....463 Academy St., Kalamazoo
Hubbell, Reader J.....R.R. 2, Suttons Bay
Hume, Robert H.....705 Hanselman Bldg., Kalamazoo
Huyser, Wm. C.....427 S. Burdick St., Kalamazoo
Irwin, Wm. D.....103 N. Burdick St., Kalamazoo
Jennings, Robert M.....Box A, Kalamazoo
Johnson, Fenimore T. (A).....Med. Div., Upjohn Co., Kalamazoo
Kavanaugh, John.....1223 S. Park St., Kalamazoo
Kavanaugh, Wm. R.....612 Douglas Ave., Kalamazoo
Kercher, Ervin F.....224 E. Cedar St., Kalamazoo
Kilgore, Robert N.....252 E. Lovell, Kalamazoo
Klerk, Wm. J.....914 S. Burdick St., Kalamazoo
Koestner, Paul A.....1303 Portage St., Kalamazoo
Kuizenga, Marvin R., Ph.D. (A).....Upjohn Co., Kalamazoo
Lavender, Howard C...136 E. Michigan Ave., Kalamazoo
Lawrence, James O.....1409 Henderson Dr., Kalamazoo
Lawson, James B. (A).....R.R. 1, Box 190, Vicksburg
Lemmer, Richard A.....252 E. Lovell, Kalamazoo
Light, Richard U.....828 W. South St., Kalamazoo 49
Littig, John D.....1708 Embury Rd., Kalamazoo
Locklin, W. Kaye.....136 E. Michigan, Kalamazoo
Louisell, James M.....1223 S. Park St., Kalamazoo
Loynd, James W., II.....1324 S. Park St., Kalamazoo
MacDonald, M. A.....2824 Hill N. Brook Dr., Kalamazoo
MacGregor, John R.....100 Maple St., Parchment
Machin, Harold A.....2348 Tipperary Rd., Kalamazoo
Malone, James G.....420 John St., Kalamazoo
Margolis, Fredk. J.....2901 S. Westnedge, Kalamazoo
Marshall, Don.....252 E. Lovell St., Kalamazoo
Marshall, Evelyn M. W. (A).....1508 Timberlane Dr., Kalamazoo
Marshall, Wm. P.....160 Edgemoor Ave., Kalamazoo
Martens, Irvin J.....1521 Gull Rd., Kalamazoo
May, Donald G.....516 Whites Rd., Kalamazoo
McCarthy, Jos. S.....Box A, Kalamazoo
McLeod, Garrard A., Ph.D. (A).....Upjohn Co., Kalamazoo
McManus, James W.....1416 Academy St., Kalamazoo
McMillan, Donald W.....420 John St., Kalamazoo
Mellis, Richard.....516 Whites Rd., Kalamazoo
Moe, Carl R.....1324 S. Park St., Kalamazoo
Morter, Roy A.....2421 Sheffield, Kalamazoo
Neerken, Adrian J.....1318 American Nat'l Bldg., Kalamazoo
Nicholson, Robert M.....252 E. Lovell, Kalamazoo
O'Donovan, C. J.....2659 Sunnybrook Dr., Kalamazoo
Overbey, Chas. B., Jr.....1000 Oakland Dr., Kalamazoo
Patmos, Martin.....1207 Cherry St., Kalamazoo
Peake, Chas. O., III.....252 E. Lovell St., Kalamazoo
Pearson, Edwin O.....458 W. South St., Kalamazoo 46
Peelen, J. W.....516 Whites Rd., Kalamazoo
Peelen, Matthew.....252 E. Lovell St., Kalamazoo
Peltason, Walter C.....Box A, Kalamazoo
Peltier, Hubert C. (A).....Upjohn Co., Kalamazoo
Perry, Clifton W.....2030 Waite Ave., Kalamazoo 40
Pinkham, Raymond A.....316 Henrietta St., Kalamazoo
Pool, John D.....736 E. Cork, Kalamazoo
Prentice, Hazel R.....2413 W. Main St., Kalamazoo
Pullon, Alton E.....1223 S. Park St., Kalamazoo
Rasmussen, Leo B.....152 N. Main St., Vicksburg
Reames, Harold R.....2704 Brookhaven Rd., Kalamazoo
Rigterink, Gerald H.....136 E. Michigan, Kalamazoo
Roberts, Millard S.....118 Bulkley St., Kalamazoo 49
Rockwell, Donald C.....1227 Jefferson, Kalamazoo 48
Rogers, Rodney J.....126 N. Kalamazoo, Vicksburg
Rutherford, P. S.....Borgess Hospital, Kalamazoo
Ryan, Fredk. C.....507 S. Burdick St., Kalamazoo 8
Sage, Edward D. (L)..902 Hanselman Bldg., Kalamazoo
Scherer, Flora E.....3628 Bronson, Kalamazoo
Scholten, Dirk J. (L).....522 S. Burdick St., Kalamazoo
Scholten, Roger A.....252 E. Lovell St., Kalamazoo
Scholten, Wm. (R).....Box A, Kalamazoo State Hosp., Kalamazoo
Schrieber, R. S., Ph.D. (A).....Upjohn Co., Kalamazoo
Schrier, Clarence T. M.....1000 Oakland Dr., Kalamazoo
Schrier, Paul G.....252 E. Lovell St., Kalamazoo
Schrier, Thomas.....Box 88, Comstock
Scott, Wm. A.....252 E. Lovell St., Kalamazoo
Siemsen, Walter J.....3424 Old Colony Rd., Kalamazoo
Simpson, Bernard W.....610 S. Burdick, Kalamazoo
Sisk, Wilfred N.....301 Henrietta St., Kalamazoo
Slatmyer, Karel R., Jr.....103 N. Burdick St., Kalamazoo
Slenger, Walworth R.....252 E. Lovell St., Kalamazoo
Smith, Thos. C.....1000 Oakland Dr., Kalamazoo
Sofen, Morris B.....107 W. Michigan Ave., Kalamazoo
Southworth, M. N.....Schoolcraft
Stewart R. B.....605 Hanselman Bldg., Kalamazoo
Stewart, Wm. C., Jr.....2019 Rambling Rd., Kalamazoo
Stiller, Anthony F.....1500 Blakslee St., Kalamazoo
Stryker, Homer H.....1521 Gull St., Kalamazoo
Talanda, Edmund.....3125 W. Main, Kalamazoo
Talley, Robert W.....301 Henrietta St., Kalamazoo
Tucker, Harold A. (A).....Upjohn Co., Kalamazoo
Upjohn, E. Gifford.....301 Henrietta St., Kalamazoo
Upjohn, Harold.....301 Henrietta St., Kalamazoo
Vander Velde, K. M...Bronson Med Center., Kalamazoo
Verhage, Martin D.....228 W. Cedar St., Kalamazoo
Volderauer, John C.....458 W. South St., Kalamazoo
Warnke, Robert D.....3012 Kenilworth Ave., Kalamazoo
Weadon, Preston S.....252 E. Lovell St., Kalamazoo
Webb, Joseph P. (A).....301 Henrietta St., Kalamazoo
Wenner, Wm. F. (A)....1715 Cambridge Rd., Kalamazoo
Wilbur, Edward P. (L)..1730 Dover Rd., Kalamazoo 38
Williamson, Edwin M.....252 E. Lovell St., Kalamazoo
Wilson, Doyle E.....1223 S. Park, Kalamazoo

Wu, Jack F.....810 E. Center Ave., Kalamazoo
Young, Edgar W., Jr. (A).....Upjohn Co., Kalamazoo
Youngs, Amos S. (L).....416 S. Burdick St., Kalamazoo
Youngs, Cyril A.....416 So. Burdick St., Kalamazoo
Zolen, Margaret H.....628 S. Park St., Kalamazoo
Zwergel, Edward H.....5207 Morningside Dr., Kalamazoo

KENT COUNTY MEDICAL SOCIETY

Adams, Frank A.....526 Leonard St. N.W., Grand Rapids
Aitkin, Geo. T.....50 College Ave. S.E., Grand Rapids 3
Albers, G. Donald....203 Paris Ave. S.E., Grand Rapids 3
Albers, Robt. (A).....430 Morris S.E., Grand Rapids
Aldridge, Chas. W., Jr.....153 Lafayette S.E., Grand Rapids 3
Alfenito, Felix S., Jr.....26 Sheldon Ave., S.E., Grand Rapids 2
Alger, George D...2060 Alpine Ave. N.W., Grand Rapids
Allen, Ralph V.....1669 Plainfield Ave., N.E., Grand Rapids 5
Allen, L. Willis..26 Sheldon Ave. S.E., Grand Rapids 2
Anderson, Karl A. (A).....2663 Reeds Lake Blvd., Grand Rapids
Andre, Harvey M...500 Cherry St. S.E., Grand Rapids 3
Andrews, E. B. (A).....1810 Wealthy St. S.E., Grand Rapids 6
Avery, Noyes L., Jr...833 Lake Dr. S.E., Grand Rapids 6
Baert, Geo. H. (L).....631 Prospect Ave. S.E., Grand Rapids 2
Baker, Abel J. (L)..74 Ionia Ave. N.W., Grand Rapids 2
Baker, Robt. J. (M).....1103 Rockwood St., Colorado Springs, Colo.
Ballard, Milner S.....146 Monroe Ave. N.W., Grand Rapids
Balyeat, Gordon W.....150 Morningside Dr., Grand Rapids 6
Barofsky, Gerald F...808 Alger St., S.E., Grand Rapids 7
Bartek, Gordon L.....110 E. Fulton St., Grand Rapids
Basinger, Clair E.....1810 Wealthy St. S.E., Grand Rapids
Baum, Wm. C.....26 Sheldon Ave. S.E., Grand Rapids
Beaton, James H.....153 Lafayette S.E., Grand Rapids 3
Beeman, Carl B.....833 Lake Dr. S.E., Grand Rapids 6
Beets, W. Clarence....124 Fulton St. E., Grand Rapids 2
Bell, Chas. M.....50 College Ave. S.E., Grand Rapids 3
Benjamin, Howard G.....72 Sheldon Ave. S.E., Grand Rapids 2
Bennett, W. Bruce.....1632 Leonard St., N.W., Grand Rapids 4
Bennett, Wm. D.....1514 Wealthy St. S.E., Grand Rapids 6
Benson, Roland R.....250 Cherry St., Grand Rapids 3
Bergsma, Stuart.....6850 Division Ave. S., Grand Rapids 8
Bettison, Wm. L. (A).....1601 Robinson Rd. S.E., Grand Rapids
Beukema, Marenus J.....6850 S. Division Ave., Grand Rapids 8
Bignall, C. Rexford..62 Ransom Ave. N.E., Grand Rapids
Birch, Larry H.....100 Mich. St. N.E., Grand Rapids
Bird, Frank L. (A).....8 Main St., Netcong, New Jersey
Blackburn, Henry M.....116 E. Fulton St., Grand Rapids
Blocksma, Ralph....26 Sheldon Ave. S.E., Grand Rapids 2
Boelkins, Richard C.....125 Fountain St. N.E., Grand Rapids 3
Boerman, Walter J.....2060 Alpine Ave. N.W., Grand Rapids
Boersma, Donald.....920 Chippewa, Grand Rapids
Boet, Frank A. (L).....849 Scribner Ave. N.W., Grand Rapids 4
Boet, John T.....2339 Wyoming Ave. S.W., Grand Rapids 9
Bond, Geo. L. (L).....Rapid City
Bonzelaar, Marvin.....2740 Eastern Ave. S.E., Grand Rapids
Booher, Craig E...1810 Wealthy St. S.E., Grand Rapids 6
Bosch, Leon C.....26 Sheldon Ave. S.E., Grand Rapids
Botting, A. J.....2360 84th St. S.W., Byron Center
Bowman, Harold E.....250 Cherry S.E., Grand Rapids 3
Boyce, David C.....507 Loraine Bldg., Grand Rapids 2
Brace, Frederick C...1498 Lake Dr. S.E., Grand Rapids 6
Bratt, Harvey J.....980 Hall St. S.E., Grand Rapids
Braunschneider, Geo. E.....1632 Leonard St. N.W., Grand Rapids 4
Brink, J. Russel....50 College Ave. S.E., Grand Rapids 3
Brotherhood, James S. (L)....3239 Scenic Dr., Muskegon
Brown, Jack A.....3 N. Monroe, Rockford
Buist, Samuel J. (A)....Orange Co. Hosp., Orange, Calif.
Bull, Frank L.....72 E. Division, Sparta
Bull, R. John (A)....500 Morris Ave. S.E., Grand Rapids
Burhans, Gregory L. (A).....1817 Fuller Ave. N.E., Grand Rapids 5
Burhans, John B...418 Medical Arts Bldg., Grand Rapids
Burleson, John S.....531 Greenwood S.E., Grand Rapids 6
Burling, Wesley M.....129 Michigan St. N.E., Grand Rapids 3
Burroughs, F. M., Jr. (A).....3307 Ottawa, Grandville
Butler, Wm. J. (A)....6832 Tivani Dr., Tucson, Arizona
Byers, Earle J. (L)..1245 Franklin St. S.E., Grand Rapids
Byrd, Mary L.....700 Kent Hills Rd. N.E., Grand Rapids 5
Capps, Samuel C...100 Michigan St., N.E., Grand Rapids
Carbeck, Robt. B. (A)..407 Park Drive, Phoenixville, Pa.
Carpenter, L. C.....50 College Ave. S.E., Grand Rapids 3
Caukin, Howard S...500 Cherry St. S.E., Grand Rapids 3
Cayce, Wm...640 S. Kent Hills Rd. N.E., Grand Rapids 5
Champion, John P.....2222 Englewood S.E., Grand Rapids 6
Chandler, Donald.....R.R. 4, East Belt Line, Grand Rapids 5
Chase, Robert J.....833 Lake Drive S.E., Grand Rapids
Chen, Mey En (A)..2641 Albert Dr. S.E., Grand Rapids
Clahassey, Erwin G.....50 College Ave. S.E., Grand Rapids 3
Claytor, Robt. W.....1424 Madison Ave. S.E., Grand Rapids 7
Clawson, Carroll K.....445 Cherry St. S.E., Grand Rapids
Corbus, Burton R. (L).....325 Union Ave. S.E., Grand Rapids
Crane, Harold D.....26 Sheldon Ave. S.E., Grand Rapids 2
Crawford, John W. (A).....28 Lafayette S.E., Grand Rapids 3
Cremer, John A.....911 Leonard St., N.W., Grand Rapids
Crissman, Richard K.....2747 Clyde Park S.W., Grand Rapids
Currier, Fred P. (R).....955 Floral Dr. S.E., Grand Rapids 6
Dales, Ernest W. (L).....146-156 Monroe Ave. N.W., Grand Rapids 2
Damstra, Harold J.....1553 Boston St., S.E., Grand Rapids 7
Dassel, Paul M.....2641 Boston S.E., Grand Rapids 6
Davis, David B.....26 Sheldon Ave. S.E., Grand Rapids 2
Davis, Roy A...1420 Berkshire Dr. S.E., Grand Rapids 8
Dawson, Walter D.....408 Medical Arts Bldg., Grand Rapids 2
Dean, Alfred (L).....Sagola
DeBoer, Arthur F. (A).....1840 Wealthy St. S.E., Grand Rapids 6
DeBoer, Clarence J.....3011 Wilson S.W., Grandville
DeBoer, Guy W...26 Sheldon Ave. S.E., Grand Rapids 2
DeMaagd, Gerald.....143 Courtland, Rockford
DeMol, Richard J.....1414 Eastern Ave. S.E., Grand Rapids 7
Denham, Robt. H...50 College Ave. S.E., Grand Rapids 3
DePree, Isla G.....14 Monroe Ave. N.E., Grand Rapids 2
DePree, Joe.....1810 Wealthy St. S.E., Grand Rapids 6
DeVel, Leon....739 Plymouth Blvd. S.E., Grand Rapids 6

DeVries, Daniel..1414 Eastern Ave. S.E., Grand Rapids 7
Dewey, Kent A...26 Sheldon Ave. S.E., Grand Rapids 2
DeYoung, M. T.....1505 Twelve Mile Rd., Sparta
Dice, Nanette....1514 Wealthy St. S.E., Grand Rapids 6
Dick, Mark W...146 Monroe Ave. N.W., Grand Rapids 2
Diskey, Donald G.....430 Shawmut Blvd. N.W., Grand Rapids 4
Dixon, Willis L.....26 Sheldon Ave. S.E., Grand Rapids 2
Docter, Luebert..26 Sheldon Ave. S.E., Grand Rapids 2
Dood, Arnold R. (A).....2129 Eldon Dr. N.E., Grand Rapids 5
Doornbos, Fred A. (A).....675 Lake Drive S.E., Grand Rapids 6
Dorain, Wallace B. (A).....1810 Wealthy, S.E., Grand Rapids
Doran, Frank L.....110 Fulton St. E., Grand Rapids 2
Doyle, John L...2402 Eastern Ave. S.E., Grand Rapids 7
Eary, L. Edmond, Jr.....52 Orchard Dr., Sparta
Eaton, Robt. M.....12 Burton St. S.E., Grand Rapids 7
Ebling, John (M)....2225 Englewood S.E., Grand Rapids
Edholm, Curtis D. (A).....250 Cherry St., S.E., Grand Rapids
Eldersveld, Herman C...815 Alger St. S.E., Grand Rapids
Ellis, Michael E.....242 Jefferson S.E., Grand Rapids
Ericsson, Kermit C. (A).....1817 Kreiser S.E., Grand Rapids
Failing, John F...2617 Lake Mich .N.W., Grand Rapids 4
Falbisaner, G. J...3000 Monroe Ave. N.E., Grand Rapids
Farber, Chas. E...50 College Ave. S.E., Grand Rapids 3
Faust, Lawrence W.....26 Sheldon Ave. S.E., Grand Rapids 2
Feenstra, L. H.....12 Burton St., S.E., Grand Rapids
Fellows, Kenneth E.....3341 Ashton Rd., S.E., Grand Rapids 6
Ferguson, James A.....2230 Hall St. S.E., Grand Rapids 6
Ferguson, Lynn A.....72 Sheldon Ave. S.E., Grand Rapids 2
Ferrand, Louis G.....119 N. Monroe St., Rockford
Fitts, Ralph L.....50 College Ave. S.E., Grand Rapids 3
Fitzgerald, Erwin L.....50 College Ave. S.E., Grand Rapids 3
Flintoff, Wm. M.....1545 Diamond Ave. N.E., Grand Rapids
Flynn, J. Donald..26 Sheldon Ave. S.E., Grand Rapids 2
Fochtman, Thos. W.....72 E. Division, Sparta
Foshee, J. Clinton....124 Fulton St. E., Grand Rapids 2
Foster, Bradford S. (A).....222 Prospect S.E., Grand Rapids
Fox, William L. (A).....100 Michigan St. N.E., Grand Rapids 3
Foxworthy, John P.....50 College Ave. S.E., Grand Rapids 3
Frantz, Charles H...1810 Wealthy St. S.E., Grand Rapids
Fuller, Edson H., Jr.....74 Ionia Ave. N.W., Grand Rapids 2
Fuller, Wm. J...2633 Frederick Dr. S.E., Grand Rapids 6
Gamm, Kenneth E.....153 Lafayette, S.E., Grand Rapids
Giammona, S. T. J.....2125 Plainfield N.E., Grand Rapids 5
Gibbs, Floyd F...4327 Division Ave. S., Grand Rapids 8
Gilbert, Ralph H.....26 Sheldon Ave. S.E., Grand Rapids
Gillett, Frederick S...50 College Ave. S.E., Grand Rapids
Ginnebaugh, L. A.....303 Ionia Ave. N.W., Grand Rapids 2
Golden, Michael F. (A).....1880 Wealthy St. S.E., Grand Rapids 6
Good, C. Robert..2745 DeHoop St. S.W., Grand Rapids
Gouwens, Willis E.....2903 Coit N.E., Grand Rapids 5
Graff, Russell G. (A).....2743 DeHoop, S.W., Grand Rapids
Grant, Lucile R...1810 Wealthy St. S.E., Grand Rapids 6
Grass, Edward J.....833 Lake Dr. S.E., Grand Rapids 6
Gray, Fred B.....26 Sheldon Ave. S.W., Grand Rapids
Graybiel, Geo. P.....118 W. Main St., Caledonia
Griffith, Lucian S...50 College Ave. S.E., Grand Rapids 3
Grosenbaugh, Clare H. (A).....833 Lake Drive S.E., Grand Rapids
Gunn, James A...1840 Wealthy St. S.E., Grand Rapids 6
Gunning, Robt. E. Lee.....369 Greenwich Rd. N.E., Grand Rapids
Haarer, John G.....733 Alger S.E., Grand Rapids
Haeck, Wm., Jr.....1414 Eastern Ave., S. E., Grand Rapids 7
Hagerman, David B.....26 Sheldon Ave. S.E., Grand Rapids 2
Hamp, Arthur K.....833 Lake Dr. S.E., Grand Rapids 6
Harmeling, Mark P. (A)....1253 Lake Mich. Dr. N. W., Grand Rapids 4
Harris, Neil R. (A).....806 S. Jersey, Bluffton, Indiana
Hayes, L. W., Sr. (R).....Howard City
Hayes, Thomas A. (A).....4700 Cascade Road S.E., Grand Rapids
Heaton, John R.....72 Sheldon Ave. S.E., Grand Rapids
Heetderks, Dewey R.....26 Sheldon Ave. S.E., Grand Rapids 2
Helder, Louis (A).....2700 Elmwood, Ann Arbor
Herrick, Ruth.....26 Sheldon Ave. S.E., Grand Rapids
Hesselschwerdt, D. W.....932 Floral Drive S.E., Grand Rapids
Hill, A. Morgan....50 College Ave. S.E., Grand Rapids 3
Hill, Thos. B.....710 N. Monroe, Lowell
Hodgkinson, C. P., II (A).....26316 Powers, Dearborn
Hoeksema, Ronald H. (M)....742 Apple St., Muskegon
Hoekstra, Andrew L.....26 Sheldon Ave. S.E., Grand Rapids 2
Hoekstra, Philip J. (A).....2257 Parkwood, Ann Arbor
Hoffs, Albertus J.....153 Lafayette S.E., Grand Rapids
Holcomb, J. Winslow....1441 Breton Rd., Grand Rapids 6
Holkeboer, Henry D.....1925 Eastern Ave. S.E., Grand Rapids 7
Hollander, Stephen.....1451 Grandville Ave., Grand Rapids 9
Hoogerhyde, Jack.....124 E. Fulton, Grand Rapids 2
Horning, David J. (A).....1318 W. 44th Terrace, Kansas City, Missouri
Houghton, R. C.....525 Glenwood S.E., Grand Rapids
Howard, Leonard R. (M)..Box 10, Schilling AFB Kansas
Hoyt, Robt. L...1810 Wealthy St., S.E., Grand Rapids 6
Hudson, A. Thomas (A).....1126 E. Fulton St., Grand Rapids
Hudson, Harry C...50 College Ave. S.E., Grand Rapids 3
Hufford, A. Ray.....260 Jefferson Ave. S.E., Grand Rapids 3
Humphrey, James C.....26 Sheldon Ave. S.E., Grand Rapids 2
Humphrey, Herbert E. (A).....824 Frost Cottage Grove, Flint
Hunderman, Edward D.....538 Eastern Ave. S.E., Grand Rapids 6
Hutchinson, F. A...833 Lake Drive S.E., Grand Rapids 6
Hydrick, Robt. H.....1043 W. Fulton, Grand Rapids
Hyland, Wm. A.....110 Fulton St. E., Grand Rapids 2
Ireland, Hoesa D.....750 Fuller Ave. N.E., Grand Rapids
Irwin, Jerry L. (A)....139 Los Angeles St., Elkhart, Ind.
Jack, Wm. W.....1810 Wealthy St. S.E., Grand Rapids 6
Jackson, Doris L. (A).....1020 N. Austin Blvd., Oak Park, Illinois
Jacobs, Richard L. (A).....8608 Fernald Ave., Morton Grove, Ill.
Jameson, Fred M.....833 Lake Dr. S.E., Grand Rapids 6
Jaracz, Walter J.....634 Bridge St., N.W., Grand Rapids 4
Jaracz, Walter J., Jr.....634 Bridge St. N.W., Grand Rapids 4
Jarka, Robt. W.....50 College Ave. S.E., Grand Rapids 3
Jarvis, Chas., Jr.....1520 Plainfield Ave. N.E., Grand Rapids 5
Jellema, John F.....2060 Voorheis N.W., Grand Rapids 4
Jensen, William B., Jr.....3147 Bonnell Ave. S. E., Grand Rapids
Johns, Donald C.....655 Broadview St. S.E., Grand Rapids 7
Johnston, Dan W...100 Michigan St. N.E., Grand Rapids
Johnston, Wm. L.....110 Fulton St. S.E., Grand Rapids 2
Jones, Haven E.....833 Lake Drive S.E., Grand Rapids
Jones, Horace C...1840 Wealthy St. S.E., Grand Rapids 6

Jui, John O. L.....4161 Lake Mich. Dr. N.W., Grand Rapids
Kammeraad, L. A. (M).....U.S. Army Hosp., Carlisle Barracks, Pa.
Kempers, Roger D. (M)..Mayo Clinic, Rochester, Minn.
Kempter, Albert H...1200 Lake Dr. S.E., Grand Rapids 6
Kenney, Leo J.....26 Sheldon Ave. S.E., Grand Rapids
Kessler, Dale L.....1610 Robinson Rd. S.E., Grand Rapids 6
Kincaid, William E.....100 Michigan St., N.E., Grand Rapids 3
Kinkella, Albert M. (A).....(No Address)
Klein, Jacob E. (M).....R.R. 2, Box 30, Bangor
Klomparens, James T. (M).....4725 Xerxes Street, Minneapolis, Minn.
Klooster, Gerald....2740 Eastern Ave. S.E., Grand Rapids
Kniskern, Paul W.....26 Sheldon Ave. S.E., Grand Rapids 2
Kooistra, Henry P.....1564 Pontiac Rd., Grand Rapids 6
Kool, Bernard P.....445 Cherry St. S.E., Grand Rapids 3
Kreulen, Henry J.....2452 Godwin S.E., Grand Rapids 7
Krhovsky, Frank J. (A).....130 Rexford Dr. S.E., Grand Rapids
Kruse, Wm. T., Jr.....2225 Wilshire Dr. S.E., Grand Rapids 6
Kuiper, K. VanZanten.....2208 Madison Ave. S.E., Grand Rapids 7
Laird, Robt. G.....26 Sheldon Ave. S.E., Grand Rapids
Lamberts, Austin E.....1520 Leffingwell N.E., Grand Rapids 5
Landstra, Robt. F...50 College Ave. S.E., Grand Rapids 3
Lang, Ramon B.....1520 Plainfield Ave. N.E., Grand Rapids 5
Lanning, Nicholas E.....1204 Madison Ave. S.E., Grand Rapids 7
Leep, Jos. H.....1036 Franklin Street. S.E., Grand Rapids
Lentini, Jos. R.....110 Fulton St., S.E., Grand Rapids 2
Leppink, Richard A. (A).....519 Logan St. S.E., Grand Rapids
Lewis, Geo. H.....30 Manchester Rd. S.W., Grand Rapids 8
Lieffers, Harry....26 Sheldon Ave. S.E., Grand Rapids 2
Lillie, Walter I.....50 College Ave. S.E., Grand Rapids 3
Link, Darrell L. (A).....928 Fountain St. N.E., Grand Rapids
List, Carl F.....401 Lakeside Dr., Grand Rapids 6
Logie, James W.....833 Lake Dr. S.E., Grand Rapids 6
Lukens, Jack G.....26 Sheldon Ave. S.E., Grand Rapids
MacDonnell, James A.....50 College Ave. S.E., Grand Rapids 3
MacIntyre, Dugald S.....833 Lake Dr. S.E., Grand Rapids 6
Mahaney, Robert C. (A).....1045 Keneberry Way, S.E., Grand Rapids 6
Mancewicz, Jerome F.....1154 Leonard St. N.W., Grand Rapids
Mann, Jos. D.....100 Michigan St., N.E., Grand Rapids 3
Marsh, John P.....124 Fulton St., S.E., Grand Rapids 2
Marshall, Robt. B. (A).....4762 Baldwin Manor, Pittsburgh 27, Pa.
Martin, Alexander M.....110 Fulton St. East, Grand Rapids 2
Martinus, Martin (A).....525 Overbrook Lane S.E., Grand Rapids 7
Mason, Warren B...50 College Ave. S.E., Grand Rapids 3
Maycroft, T. C. (M)..253 Garfield, N.W., Grand Rapids
Maynard, Mason S.....445 Cherry St. S.E., Grand Rapids 3
McCormick, John K.....122 Caledonia N. E., Grand Rapids 5
McDougal, Wm. J.....127 Fountain St., N.E., Grand Rapids 3
McKay, Orval I.....311 E. Main St., Lowell
McKinlay, Leland M. (R).....Box 113, Howey in Hills Lake Co. Fla.
McMahon, F. Gilbert (A).....(No Address)
Meade, Richard H., Jr.....750 San Jose Drive, Grand Rapids 6
Meeuwsen, Bernard..26 Sheldon Ave. S.E., Grand Rapids
Mehney, Gayle H.....26 Sheldon Ave. S.E., Grand Rapids
Mesaros, Michael P. (A).....(No Address)
Miller, J. D.....50 College Ave. S.E., Grand Rapids 3
Miller, John J.....1580 Water St., Marne
Mills, Geo. R.....535 Greenwood S.E., Grand Rapids
Mitchell, Waldemar B.....26 Sheldon Ave. S.E., Grand Rapids
Moberg, Carl H...26 Sheldon Ave. S.E., Grand Rapids 2
Moen, Cornetta G.....215 Paris Ave. S.E., Grand Rapids
Moleski, Joseph V...26 Sheldon Ave. S.E., Grand Rapids
Moleski, Leo T.....26 Sheldon Ave. S.E., Grand Rapids
Moleski, Stanley L.....26 Sheldon Ave. S.E., Grand Rapids 2
Moll, Arthur M.....74 Ionia Ave. N.W., Grand Rapids 2
Mollmann, Arthur H...110 E. Fulton St., Grand Rapids
Montgomery, John C.....1810 Wealthy St. S.E., Grand Rapids 6
Moore, Douglas P.....110 Fulton St. S.E., Grand Rapids 2
Morey, Edward C. (L)....557 Fulton E., Grand Rapids 3
Mouw, Dirk R...2352 Jefferson Dr. S.E., Grand Rapids 7
Mulder, G. Arthur.....26 Sheldon Ave. S.E., Grand Rapids 2
Mulder, Jacob D. (L).....6850 S. Division Ave., Grand Rapids 8
Muldoon, James P...72 Sheldon Ave. S.E., Grand Rapids
Murray, Raymond H., Jr.....26 Sheldon Ave. S.E., Grand Rapids
Nanzig, Reinard P...153 Lafayette S.E., Grand Rapids 3
Nickel, Kenneth C.....833 Lake Drive S.E., Grand Rapids
Nienhuis, Herman D. (A).....231 Lafayette N.E., Grand Rapids
Noordhoff, M. Samuel (A).....Orange City, Iowa
Northouse, Peter B.....26 Sheldon Ave. S.E., Grand Rapids 2
Notier, Victor A...50 College Ave. S.E., Grand Rapids 3
Oates, Samuel M.....110 Fulton St. E., Grand Rapids 2
O'Brien, James D...1448 Garfield N.W., Grand Rapids 4
Oliver, W. W. (L)..26 Sheldon Ave. S.E., Grand Rapids
Overbeek, Ernest L...26 Sheldon Ave. S.E., Grand Rapids
Paalman, Russell J...26 Sheldon Ave. S.E., Grand Rapids
Palaszek, Theresa R...833 Lake Dr. S.E., Grand Rapids
Papritz, Jack W. (A).....(No Address)
Pattullo, Marshall....110 Fulton St. E., Grand Rapids 2
Payne, C. Allen.....5696 E. Fulton, Ada
Pearson, Glenn A.....519 Greenwood, Grand Rapids 6
Pedden, John R.....445 Cherry St. S.E., Grand Rapids 3
Pierce, F. H. (M).....404 Patrick Ave., Mineral Wells, Texas
Piggott, Leonard R. (M)..20250 Glastonbury, Detroit 10
Pilling, Warren C.....936 Orchard S.E., Grand Rapids 6
Piskin, M. S. (A).....750 Fuller N.E., Grand Rapids 3
Plekker, Johannes D.....833 Lake Dr. S.E., Grand Rapids 6
Pool, Lee R. (A).....28 Mich St. N.E., Grand Rapids
Porter, Howard P.....833 Lake Drive S.E., Grand Rapids
Posthuma, Albert E...153 Lafayette S.E., Grand Rapids 3
Postma, Edward Y.....68 Ransom N.E., Grand Rapids 3
Postma, Howard F.....4130 Chicago Dr., Grandville
Potchen, E. James (A).....124 E. Fulton, Grand Rapids
Pott, Abraham L.....1011 Fulton St. E., Grand Rapids 3
Prothro, Winston B...303 Ionia Ave. N.W., Grand Rapids
Puite, Robert H...26 Sheldon Ave. S.E., Grand Rapids 2
Raiman, Robert J.....50 College Ave. S.E., Grand Rapids
Ralph, L. Paul.....953 Rosewood Drive S.E., Grand Rapids 6
Rasmussen, Richard A.....Blodgett Med. Bldg., Grand Rapids 6
Reardon, D. F.....1168 Nixon N.W., Grand Rapids 4
Reus, Wm. F.....24 Burton St. S.E., Grand Rapids 7
Riekse, James M.....1916 Division S., Grand Rapids 7
Rigterink, John W. (L).....50 College Ave. S.E., Grand Rapids 3
Ringenberg, J. C...50 College Ave. S.E., Grand Rapids 3
Robb, Chas. S.....445 Cherry St. S.E., Grand Rapids 3
Robbert, John H.....3011 Wilson, Grandville
Robins, Owen H. (A).....250 Cherry St. S.E., Grand Rapids

Robinson, Harold C.....26 Sheldon Avenue S.E., Grand Rapids 2
Rodgers, Wm. L.....616 Bridge N.W., Grand Rapids
Rooks, Wendell H.....1339 Plainfield N.E., Grand Rapids
Roosenberg, William.....3000 Monroe Ave. N.E., Grand Rapids
Rosenzweig, Leonard..833 Lake Dr. S.E., Grand Rapids 6
Roth, Emil M.....604 Loraine Bldg., Grand Rapids 2
Ruggy, George H.....3926 River Rd. N.W., Comstock Park
Ryan, John A.....26 Sheldon Ave. S.E., Grand Rapids 2
Ryskamp, James J., Jr. (A).....21 H Ridge Rd., Greenbelt, Maryland

Sanders, Jack F.....2740 Eastern Ave., Grand Rapids
Santinga, John T. (A)....3973 USAF Hosp., APO 284, % PM, New York
Schaubel, Howard J...124 Fulton St. E., Grand Rapids 2
Schek, Donald C. (A).....2749 Clyde Park Ave. S.W., Grand Rapids
Schermerhorn, L. J. (R).....2317 Vine Hill Rd., Santa Cruz, Calif.
Schilling, R. J. (A)..1019 Pinecrest S.E., Grand Rapids 6
Schlosser, Ralph J...26 Sheldon Ave. S.E., Grand Rapids
Schnoor, Elmer W.....844 Iroquois Drive S.E., Grand Rapids 6
Schnute, Louise F.....146 Monroe N.W., Grand Rapids 2
Schumacher, Earle E., Jr.....833 Lake Drive S.E., Grand Rapids 6
Scott, Wm. B.....114 Michigan N.W., Grand Rapids 2
Sculley, Raymond E.....126 Burton S.E., Grand Rapids
Seidel, Karl E.....16 36th St. S.W., Grand Rapids 8
Seime, Reuben I.....250 Cherry St. S.E., Grand Rapids 3
Sevensma, Elisha S. (L)..1077 E. Leonard, Grand Rapids
Sevensma, Eugene S...1077 Leonard N.E., Grand Rapids
Sharda, Martin.....740 Alger St. S.E., Grand Rapids
Shellman, Millard W.....50 College Ave. S.E., Grand Rapids 3
Sidell, Richard H.....312 E. Fulton St., Grand Rapids 3
Siebers, Bernard H.....1085 Leonard N.E., Grand Rapids
Sikkema, Donald E. (A).....6674 Clyde Pk. Ave. S.W., Grand Rapids
Skendzel, L. P. (A)..925 Flat Street N.E., Grand Rapids
Sluyter, John S.....839 Iroquois Drive S.E., Grand Rapids 6
Smith, Ansel B.....110 Fulton St. E., Grand Rapids 2
Smith, Dean B.....50 College Ave. S.E., Grand Rapids
Smith, Robt. B.....26 Sheldon Ave. S.E., Grand Rapids 2
Smith, R. Earle....74 Ionia Ave. N.W., Grand Rapids 2
Snider, John D.....2130 Godwin Ave. S.E., Grand Rapids
Snyder, Clarence H.....500 Cherry St. S.E., Grand Rapids 3

Southwick, C. H.....55 Sheldon Ave. S.E., Grand Rapids
Southwick, G. Howard.....55 Sheldon Ave. S.E., Grand Rapids 2
Spencer, Herbert H.....26 Sheldon Ave. S.E., Grand Rapids 2
Start, Armond H. (A).....709 Gaffney Rd., Bens Lake Eglin Air Force Base, Florida
Steffensen, W. H...1810 Wealthy St. S.E., Grand Rapids
Stonehouse, Garnet G.....408 Medical Arts Bldg., Grand Rapids 2
Stoneman, Fernley.....3011 Wilson, Grandville
Stover, Virgil E.....860 Gladstone S.E., Grand Rapids 6
Stuart, Gerhardus J. (L).....530 Overbrook Lane S.E., Grand Rapids 6
Sugg, Cullen E.....303 Fulton St. E., Grand Rapids 3
Sugiyama, Tetsuo.....110 E. Fulton St., Grand Rapids 2
Sun, Keh Ming....St. Mary's Hosp. Lab., Grand Rapids 3
SusStrong, Carl A. (R)....316 Union S.E., Grand Rapids
Swanson, Alfred B.....1810 Wealthy St. S.E., Grand Rapids 6
Swenson, Harold C.....124 Fulton St. E., Grand Rapids 2

Telego, A. J.....1016 San Juan S.E., Grand Rapids
Ten Have, John.....3515 Briggs Blvd., N.E., Grand Rapids 2
Ter Keurst, Donald H. (A)....1403 Eastern Ave. S.E., Grand Rapids 7
Tesseine, Arthur J...1328 Madison S.E., Grand Rapids 7
Teusink, James H.....Cedar Springs
Thompson, Athol B.....1810 Wealthy St. S.E., Grand Rapids 6
Thompson, Edward C.....153 Lafayette Ave. S.E., Grand Rapids 3
Thompson, Frank D.....4011 Reeds Lk. Blvd. S.E., Grand Rapids 6
Thomson, John W.....833 Lake Drive S.E., Grand Rapids
Tidey, Marcus B.....456 Cherry St. S.E., Grand Rapids 3
Tiffany, Jos. C.....2322 Jefferson Dr. S.E., Grand Rapids 7
Torgerson, Wm. R.....833 Lake Dr. S.E., Grand Rapids 6
Torgerson, Wm. R., Jr.....110 Fulton St. E., Grand Rapids 2
Troske, Robt. L. (M).....1553 S. Pershing Dr., San Francisco, Calif.
Truog, Clarence P.....110 Fulton St. E., Grand Rapids 2
Valdmanis, Ferdinand S.....2120 Lake Drive S.E., Grand Rapids
Van Bree, Raymond S.....1521 Ridgewood S.E., Grand Rapids 6
Vanden Berg, A. R.....26 Sheldon Ave. S.E., Grand Rapids 2
Vanden Berg, Henry J. (L).....2933 Bonnell Road S.E., Grand Rapids
Vanden Berg, Wm. O.....50 College Ave. S.E., Grand Rapids 3
Vander Kolk, K. J. (A).....Route 2, Zeeland
Vander Meer, Raymond.....26 Sheldon Ave. S.E., Grand Rapids 2
Vandermolen, John....1805 Diamond N.E., Grand Rapids
Vander Ploeg, R. A. (A).....1150 Prince S.E., Grand Rapids
Vander Ploeg, Wm. H.....980 Hall S.E., Grand Rapids 7
Van Der Veer, Corwin G.....68 Ransom Ave. N.E., Grand Rapids 3
Van Dommelen, G. M.....1539 Plainfield N.E., Grand Rapids
Van Duine, Henry J.....414 Brookside Dr. S.E., Grand Rapids 7
Van Dyke, Harold E.....1108 Leonard St. N.E., Grand Rapids
Van Goor, Kornelius.....26 Sheldon Ave. S.E., Grand Rapids 2
Van Noord, Gelmer A.....6850 Division Ave. S., Grand Rapids 8
Van Portfliet, Paul.....26 Sheldon Ave. S.E., Grand Rapids 2
Van Solkema, Andrew A.....953 E. Fulton St., Grand Rapids
Van Solkema, Arthur.....3140 Washington, Grandville
Van'T Hof, Albert.....50 College Ave. S.E., Grand Rapids 3
Van Woerkom, Daniel.....750 Leonard St. N.W., Grand Rapids 4
Van Zwalenburg, B. R.....2054 Anderson Dr. S.E., Grand Rapids 6
Veldman, Harold E.....26 Sheldon Ave., Grand Rapids 2
Venema, Jay R.....540 Overbrook Lane S.E., Grand Rapids 7
Ver Lee, Jimmie J. (A)..254 James S.E., Grand Rapids
Ver Meulen, John (L)....2400 Wyoming, Grand Rapids
Ver Meulen, Peter (A).....105 Baynton N.E., Grand Rapids
Verwys, A. L. Hubert.....815 Alger St. S.E., Grand Rapids 7
Vining, Keats K., Jr.....833 Lake Dr. S.E., Grand Rapids 6
Vis, Wm. R. (L).....26 Sheldon Ave. S.E., Grand Rapids 2
Visser, Earl R. (M).....(No Address)
Vogel, Anton, Jr. (A)....750 Fuller N.E., Grand Rapids
Voss, John A.....2060 Alpine Ave. N.W., Grand Rapids 4
Vroon, John (A)....DRCM Hosp., G. Boko Post Office, Mikar via Mikupdi, N. Nigeria, W. Africa

Vyn, Jay D.....7119 Driftwood S.E., Grand Rapids 6
Wahby, Elmer F.....300 Bostwick Ave. N.E., Grand Rapids
Walma, Daniel (A).....3911 Grand St., Grandville
Wassink, Roger N. (A)....28 Mich. N.E., Grand Rapids
Waterman, Donald F.....535 Greenwood S.E., Grand Rapids 6
Webb, Clarence F...833 Lake Dr. S.E., Grand Rapids 6
Webber, Jerome E.....50 College Ave. S.E., Grand Rapids 3
Weller, Keith E.....1200 Lake Dr. S.E., Grand Rapids 6
Wells, S. Merrill, Jr.....50 College Ave. S.E., Grand Rapids 3
Wenger, Aaron V. (L).....132 Grand Ave. N.E., Grand Rapids
Wenger, John N.....Coopersville
Westerhoff, Robert J.....2740 Eastern Ave. S.E., Grand Rapids
Whalen, John M. (M).....(No Address)
Whinery, Jos. F...50 College Ave. S.E., Grand Rapids 3
Whitehouse, John D.....1201 Colorado Ave. S.E., Grand Rapids 6
Whittenberger, R. N.....833 Lake Dr. S.E., Grand Rapids
Wiarda, Roy J., Jr. (A).....206 Thurber, Apt. 3B, Providence, R. I.
Wiese, John L.....50 College Ave. S.E., Grand Rapids 3
Wilderom, Morris.....303 Ionia Ave. S.W., Grand Rapids
Wilkes, John B.....1328 Madison Ave. S.E., Grand Rapids 7
Wilkinson, C. A.....2030 Leonard St. N.W., Grand Rapids
Williams, John R.....833 Lake Dr. S.E., Grand Rapids 6
Wilson, John R.....1033 Fulton St. W., Grand Rapids
Wilson, Wm. E. (R).....37 Prospect Ave. N.E., Grand Rapids
Winfield, Emery D.....457 Burton S.E., Grand Rapids
Winter, Garrett E.....1967 Godfrey Ave. S.W., Grand Rapids 9
Wright, Thos. B.....2614 Plainfield Ave. N.E., Grand Rapids 8
Wurz, John F.....201 Norwood Ave. S.E., Grand Rapids
Wyngaarden, Martin K.....146 Monroe Ave. N.W., Grand Rapids
Yared, Jerome A...651 Cherry St. S.E., Grand Rapids 6
Zadvinskis, Z. (A).....505 Madison Ave. S.E., Grand Rapids
Zwemer, Rodger J.....1810 Wealthy St. S.E., Grand Rapids

LAPEER COUNTY MEDICAL SOCIETY

Bishop, G. Clare.....Almont
Boruch, Leon R...Drawer A., Lapeer State Home, Lapeer
Buchanan, Thos. K.....290 S. Almont Ave., Imlay City
Chapin, Clarence D. (L).....Columbiaville
Conaway, Chas. E.....746 Monroe St., Lapeer
Dorland, Clarke.....221 Lincoln St., Lapeer
Doty, James R.....315 Clay St., Lapeer
Greavu, Cornell, Jr.....North Branch
Heitsch, Wm. C.....307 Clay St., Lapeer
House, Clifford.....1026 N. Madison, Lapeer
Kiehler, E. G., II.....1444 W. Genesee St., Lapeer
Kocur, Lubomira.....Drawer A, Lapeer
Lebedovych, Emil.....Drawer A, Lapeer State Home, Lapeer
Lebedovych, Ksenia.....Drawer A, Lapeer State Home, Lapeer
Leith, Dorothy L.....240 Main St., Imlay City
McBride, John R.....431 Washington St., Lapeer
O'Brien, Daniel J. (L).....100 Cedar St., Lapeer
Rehn, Adolph T.....Lapeer State Home, Lapeer
Smith, Ellen.....Lapeer State Home, Lapeer
Smith, Glenn L.....6552 Imlay City Rd., Imlay City
Utley, Marvin.....Drawer A, Lapeer
Zemmer, Harry B.....311 Clay St., Lapeer
Zolliker, Carl R.....Lapeer State Home, Lapeer

LENAWEE COUNTY MEDICAL SOCIETY

Abraham, A. O.....Hudson
Balice, F. W.....128 E. Butler, Adrian
Benz, Carl A.....308 N. Broad St., Adrian
Berghuis, John.....693 Stockford Dr., Adrian
Blanchard, Lowell E.....Hudson
Blanden, Merwin R.....Tecumseh
Boyd, James W.....Bixby Hospital, Adrian
Claxton, Wilbert T.....Britton
Coak, Richard D.....Ford Bldg., Tecumseh
Conlin, Gladstone.....National Bank Bldg., Adrian
Cook, Carlton L.....W. Chicago Rd., Tecumseh
Dustin, Richard E.....103 W. Brown St., Tecumseh
Eddy, Howard R. C.....Mill Rd., Adrian
Fitzsimmons, Francis J.....128 E. Butler St., Adrian
Gilkey, William C.....693 Stockford Dr., Adrian
Hamilton, John D.....Mill Rd., Adrian
Hammel, Richard T.....Tecumseh
Harrison, Robert E.....418 W. Adrian, Blissfield
Heffron, Chas. H.....231 N. Main St., Adrian
Heffron, C. Harold.....231 N. Main St., Adrian
Heffron, Howard H.....231 N. Main St., Adrian
Helzerman, Ralph F.....112 S. Ottawa St., Tecumseh
Hewes, Wm. H.....Mill Rd., Adrian
Hinshaw, Warren V.....139 N. Main St., Adrian
Hood, Clifford (M).....767 W. Maumee, Adrian
Hornsby, W. B. (L).....Clinton
Hunter, Thos. B.....113 E. Maumee St., Adrian
Isley, Homer E.....410 Benot Court, Blissfield
Marsh, Roland G. B.....610 W. Logan St., Tecumseh
Miller, P. Lynford.....310 E. Maumee St., Adrian
O'Connor, Archie R.....122 Locust St., Clinton
Parker, Donald A.....4396 Evergreen Dr., Adrian
Patmos, Bernard.....127 E. Maumee St., Adrian
Phelan, Alvin J.....102 S. Pearl St., Tecumseh
Raabe, Elmer C.....Morenci
Rawson, A. P. (A)..Addison Community Hosp., Addison
Richey, Bert R.....765 Manitou Rd., Manitou Beach
Rogers, John D.....146 Toledo St., Adrian
Sarapo, Donato F. (L).....216 N. Broad St., Adrian
Skufis, E. M.....123 E. Chestnut, Adrian
Skufis, Xenophon.....123 E. Chestnut, Adrian
Stark, Emily S.....573 Front St., Adrian
Stewart, Landis C.....108 Nat'l Bank Bldg., Adrian
Thompson, John R., Jr.....114 Nat'l Bank Bldg., Adrian
Tubbs, Ray V.....120 E. Adrian, Blissfield
Van Dusen, Chad A. (L).....RFD 5, Blissfield
Whitehouse, Keith H.....Morenci
Wilson, Geo. C.....Box 224, Clinton
Wisely, John (A).....113 W. Front St., Adrian
Wolf, Marvin B.....118 N. Winter St., Adrian
Wynn, Geo. H.....1115 W. Maumee, Adrian

LIVINGSTON COUNTY MEDICAL SOCIETY

Barton, Thos. A.....116 N. Michigan, Howell
Clarke, Niles A.....624 Spencer Rd., Brighton
Detterbeck, F. I.....State Sanitarium, Howell
Duffy, Ray M.....Box 106, Pinckney
Fidler, Wm. F.....Mich. State San., Howell
Glenn, Bernard H. (A)..226 E. Grand River, Fowlerville
Green, Walter E.....12851 E. Grand River Ave., Brighton
Harebottle, Norman.....Fowlerville
Hauer, R. Fred.....Fowlerville
Hendren, Jesse J. (R).....Fowlerville
Hill, Harold C.....116 N. Michigan Ave., Howell
Hoffman, Stanley.....State Sanitarium, Howell
May, Louis E.....924 W. Grand River, Howell
McGregor, Archie J.....Brighton
Mitchell, Abbott B.....3505 Mason Rd., Howell
Nicholas, Mildred V.....Mich. State San., Howell
Perry, Florence J. C.....17640 San Rose Ave., Lathrup Village
Polack, Robert T.....221 Fowler, Howell
Rogers, Robert P.....Brighton
Schenden, A. J.....6335 W. M. 36, Pinckney
Sigler, Hollis L.....110 N. Michigan Ave., Howell
Wadlund, Robert R.....620 Byron Rd., Howell
Walker, Enos G.....4485 Cordley Lake, Lakeland
Woodworth, Edwin S.....1200 Byron Rd., Howell

LUCE COUNTY MEDICAL SOCIETY

Adams, DeWitt C.....Tuller Hotel, Detroit
Banach, Alexius.....Newberry State Hosp., Newberry
Campbell, Earl H. (L).....Newberry
Gibson, Robert E. L., Jr.....207 W. John St., Newberry
Grennan, Lawrence E.....210 W. John St., Newberry
Hicks, R. P.....228 Newberry Ave., Newberry
Purmort, Wm. R., Jr.....Newberry State Hosp., Newberry
Surrell, Matthew A.....210 W. John St., Newberry
Swanson, George F.....VA Hosp., University and Woodland, Philadelphia, Pa.
Thompson, Thos. W.....Newberry State Hosp., Newberry

MACOMB COUNTY MEDICAL SOCIETY

Adler, Morton W.....19188 Appoline St., Detroit 35
Ambrose, Robert H.....18801 Ten Mile Rd., Roseville
Audretsch, F. E.....36275 Alfred, New Baltimore
Barker, John G.....8050 Warren Blvd., Center Line
Beecher, Alvin J.....21501 Kelly, East Detroit
Bower, Allen B.....Armada
Brady, Milo J.....22233 11 Mile Rd., St. Clair Shores
Bryce, James W.....25219 Van Dyke Ave., Center Line
Buckley, Daniel J.....160 S. Walnut St., Mt. Clemens
Charbeneau, Harold P.....67 Cass Ave., Mt. Clemens
Cherup, Nicholas.....22728 Ryan Rd., Warren
Corbett, John....407 Monitor Leader Bldg., Mt. Clemens
Croman, Jos. M., Jr.....115 Cass Ave., Mt. Clemens
Curatolo, Victor.....67 Cass Ave., Mt. Clemens
Curlett, James E. (L).....26765 Gratiot Ave., Roseville
Deal, Harold R.....23700 Van Dyke, Warren
DePaulis, Dario C.....22644 Gratiot, East Detroit
Disney, Charles T.....P.O. Box 56, N. End St., Detroit 5
Dudzinski, Edmund J.....424 Washington St., New Baltimore
Ebner, Charles M.....26401 Harper, St. Clair Shores
Ekelman, Seymour B.....37546 S. Gratiot Ave., Mt. Clemens
Ellias, Elmer P.....23700 Van Dyke, Warren
Engels, John A.....69311 N. Main, Richmond
Finn, James Wm.....45569 Van Dyke, Utica
Fryer, Ronald.....33131 Klein, Fraser
Goldman, Bernard J.....243 S. Gratiot Ave., Mt. Clemens
Hartmann, Waldemar B.....1416 S. Gratiot, Mt. Clemens
Heine, Austin W.....99 S. Gratiot Ave., Mt. Clemens
Isbey, Edward K.....856 Westchester Rd., Grosse Pointe 3
Ivkovich, Peter (A).....12501 E. 23 Mile Rd., Utica
Jacobs, Manuel.....23700 Van Dyke Ave., Warren
Jewell, James H.....Roseville Theatre Bldg., Roseville
Juliar, Jos. F.....136 Cass Ave., Mt. Clemens
Kane, John P.....67 Cass Ave., Mt. Clemens
Kane, Peter V.....67 Cass Ave., Mt. Clemens
Kane, Wm. J.....69 Cass Ave., Mt. Clemens
Kingsley, Joyce W., Jr.....18801 Ten Mile Rd., Roseville
Kirker, J. G.....68259 Main St., Richmond
Kirtland, Wm. B., Jr...18801 E. Ten Mile Rd., Roseville
Klein, Alfred A.....23700 Van Dyke, Warren
Lapp, Charles.....7817 McClellan, Utica
Lee, Frank (M).....12315 Broadstreet, Detroit 4
Lerman, S. E.....23700 Van Dyke. Warren
Maguire, Andrew J.....45569 Van Dyke, Utica
Marks, Morris H.....24157 Van Dyke, Center Line
Martin, Wm. L.....117 S. Main St., Romeo
Mattes, Max W.....18456 Wildemere, Detroit 21
Matthews, C., Jr.....91 Cass Ave., Mt. Clemens
Maxim, Edward S.....253 S. Gratiot, Mt. Clemens
McMorrow, Kathryn....22101 Gratiot Ave., East Detroit
Merritt, Ivle I.....36640 S. Gratiot, Mt. Clemens
Miller, Sidney S.....22048 Gratiot, East Detroit
Moore, Geo. F.....67 Cass Ave., Mt. Clemens
Morris, Gerald W.....44 S. Gratiot, Mt. Clemens
Mulligan, Philip T.....91 Cass Ave., Mt. Clemens
Nance, Marion E.....16666 14 Mile Rd., Fraser
Nutting, Helen M...22631 Greater Mack, St. Clair Shores
Paris, Delmo A.....18801 E. Ten Mile Rd., Roseville
Parmelee, N. H.....26758 Gratiot, Roseville
Radai, Joseph L.....Box 56, North End Sta., Detroit 5
Reichman, Jos. J.....67 Cass Ave., Mt. Clemens
Reitzel, Rufus H.....199 S. Gratiot Ave., Mt. Clemens
Reizen, Maurice S.....10564 Ludlow, Huntington Woods
Revere, Jos. O.....192 S. Gratiot Ave., Mt. Clemens
Rinkenberger, E. A.....243 S. Gratiot Ave., Mt. Clemens
Rivard, Chas. L.....20825 Mack Ave., G.P.W., Detroit 36
Rivkin, Jos.....44 S. Gratiot Ave., Mt. Clemens
Rizzo, Albert.....21503 Harper Ave., St. Clair Shores
Romanski, Raymond.....St. Joseph Hosp., Mt. Clemens
Roth, Geo. E.....19136 Mendota Ave., Detroit 21
Rothman, Arthur M.....22422 Gratiot Ave., East Detroit
Rourke, Ronald E.....21503 Harper Ave., St. Clair Shores
Rousseau, Daniel L.....610 Monitor Leader Bldg., Mt. Clemens
Ruedisueli, C. A.....19 Breitmeyer Pl., Mt. Clemens
Rush, Wm. E.....25815 Harper, St. Clair Shores
Ryan, Jack.....2214 Beverly Blvd., Berkley
Salot, Russell F.....67 Cass Ave., Mt. Clemens
Scher, Jos. N.....130 Cass Ave., Mt. Clemens
Scher, Sydney.....132 Cass Ave., Mt. Clemens
Siegfried, Edward G.....91 Cass Ave., Mt. Clemens
Sims, Wm. N.....Monitor Leader Bldg., Mt. Clemens
Singer, Nelson.....22100 Gratiot Ave., East Detroit
Smith, Milton C.....60 S. Gratiot Ave., Mt. Clemens
Steinberger, Eugene.....23700 Van Dyke, Warren
Stepka, Joseph E.....7817 McClellan, Utica
Stone, Elizabeth A.....Romeo
Stone, Julius.....51 Cass Ave., Mt. Clemens
Strempek, Walter F.....241 N. Main, Romeo
Stryker, Oscar D...31032 Jefferson Ave., St. Clair Shores
Sturm, Fredk. A...29405 Jefferson Ave., St. Clair Shores
Suksta, Adolph W.....18215 Utica Rd., Roseville

Suzuki, M.....23700 Van Dyke, Warren
Thompson, Alfred A.....126 Cass Ave., Mt. Clemens
Tinkey, L. Leo.....18807 E. Ten Mile Rd., Roseville
Trinkaus, Wm. F.....22033 Kelly Rd., East Detroit
Weiss, Jack I.....23700 Van Dyke Ave., Warren
Whitley, Alec.....30233 Jefferson Ave., St. Clair Shores
Wiley, D. Bruce.....45310 Van Dyke Ave., Utica
Wilson, Norman R...31118 Harper Ave., St. Clair Shores
Wyte, Wm. C.....263 S. Gratiot Ave., Mt. Clemens
Yamasaki, Ken.....23700 Van Dyke, Warren
Zavela, Dan.....679 N. Renaud, Grosse Pointe Woods

MANISTEE COUNTY MEDICAL SOCIETY

Garneau, Robert R.....606 N. Gaylord Ave., Ludington
Gunderson, Edw. P., Jr.....Greenbush St., Manistee
Hansen, Ernest C.....78 Maple St., Manistee
Konopa, John F.....57 Poplar St., Manistee
Lalime, Ruth E.....Bear Lake
Lewis, Lee A. (L).....Manistee
Loughrin, John J.....212 Fournier St., Berea, Ohio
Miller, Ernest B.....326 First St., Manistee
Oakes, Ellery A.....401 River St., Manistee
Ramsdell, Homer A.....398 River St., Manistee
Rosenow, K. G.....326 First St., Manistee
Schwarz, Marlowe L.....Onekama
Schwing, Donald N.....326 First St., Manistee

MARQUETTE-ALGER COUNTY MEDICAL SOCIETY

Acocks, James R.....Morgan Heights San., Marquette
Amolsch, Arthur L.....St. Lukes Hosp., Marquette
Bennett, Arthur K. (L).....Box 436, Mt. Dora, Fla.
Bennett, Matthew C.....Medical Bldg., Marquette
Berry, Robert F.....Medical Bldg., Marquette
Bertucci, Jos. P.....114 S. First St., Ishpeming
Bolan, Beatrice.....City Hall, Marquette
Bolitho, Thos. B.....Medical Bldg., Marquette
Carter, James M.....Medical Bldg., Marquette
Casler, Wilbur L.....131 E. Ridge St., Marquette
Conley, Donal T.....1st Nat'l Bank Bldg., Marquette
Cookinham, Frank.....1300 Kimber St., Marquette
Cooperstock, Moses.....Medical Bldg., Marquette
Corcoran, Wm. A.....200 S. Main St., Ishpeming
D'Adesky, R. G.....125 W. Washington, Marquette
Drury, Chas. P.....416 E. Hewitt Ave., Marquette
Elzinga, Eugene R.....315 N. Front, Marquette
Erickson, Douglas W.....Ishpeming Hospital, Ishpeming
Fennig, Foster A. (A).....315 N. Front St., Marquette
Grain, Gerald O.....R.R. 1, Hiawatha Shores, Marquette
Green, Southgate J.....524 Mather Ave., Ishpeming
Harkin, John C.....Nestor Block, Marquette
Hettle, Paul J.....211 Savings Bank Bldg., Marquette
Hirwas, Chas. L.....Huetter Bldg., Marquette
Hornbogen, Daniel P.....101 S. Front St., Marquette
Howe, Lloyd W.....427 W. College, Marquette
Huffman, Elston R.....427 W. College, Marquette
Jaedecke, Robert G.....829 Croix, Negaunee
Kane, Elizabeth D.....418 W. Magnetic, Marquette
Knutson, Geo. O.....829 Croix St., Negaunee
Koenig, Harry.....Nester Block, Marquette
Kronschnabel, E. F. (A)....VA Hosp., Woods, Wisconsin
Lambert, Warren C.....Medical Bldg., Marquette
Lindquist, Leo A.....Medical Bldg., Marquette
Lyons, James W.....Medical Bldg., Marquette
Matthews, Norman L...N. Mich. Child Clinic, Marquette
Moore, Bert E.....524 Mather St., Ishpeming
Mudge, Wm. A.....108 Ridge St., Negaunee
Narotzky, Archie S.....Miracle Circle Ishpeming
Paine, Raymond L.....416 Teal Lake Ave., Negaunee
Rosenbaum, Louis.....540 E. Division, Ishpeming
Sabin, Frederick C.....101 S. Front St., Marquette
Schultz, Marvin H.....114 N. Front Street, Marquette
Schweinsberg, Sara K. D. (A).....Box 417, Marquette
Sherwood, Clifford (A).....Holy Cross Hosp., Salt Lake City, Utah
Stein, Paul G.....Rt. 1, Harvey, Marquette
Swinton, Andrew L. (L).....101 S. Front St., Marquette
Tearnan, Raymond A.....Munising
Van Riper, Paul (L).....Champion
Wickstrom, Geo. B.....223 Lynn St., Munising
Williams, Reginald G.....524 Mather St., Ishpeming
Wright, Kenneth C.....Medical Building, Marquette

MASON COUNTY MEDICAL SOCIETY

Bacon, Herbert G., Jr.,.....101 N. Main, Scottville
Boldyreff, Ephraim B.....Custer
Boon, A. Floyd.....102 W. Ludington, Ludington
Carney, John R.....202 N. Park, Ludington
Carney, Ruth V. C.....202 N. Park, Ludington
Castellani, R. J.....103 N. Delia St., Ludington
Clark, Harry L. (L)....510 N. Lakeshore Dr., Ludington
Craymer, Austin.....420 N. Park, Ludington
Dykstra, Chas. L.....108 E. State, Scottville
Hoffman, Howard B...604 E. Ludington Ave., Ludington
Kleinschmidt, Gladys J.....105 N. Delia, Ludington
Martin, Wm. S.....107 Ludington, Ludington
Morrow, Wm. J.....119 N. James St., Ludington
Ostrander, Robert A.....121 E. Ludington, Ludington
Paukstis, Chas. A.....111 E. Court St., Ludington
Slaybaugh, James C.....709 E. Ludington Ave., Ludington
Sutter, Wm. F.....220 S. James St., Ludington

MECOSTA-OSCEOLA-LAKE COUNTY MEDICAL SOCIETY

Bruggema, Jacob.....Main St., Evart
Chess, Leo F.....Reed City
Franklin, Benjamin L. (L).....Remus
Haldeman, Jack.....1014 S. State St., Big Rapids
Hickox, Leland A.....1014 S. State St., Big Rapids
Ivkovich, Paul.....Reed City
Kilmer, David N. (A).....Warren State Hosp., North Warren, Pa.
Kilmer, Paul B.....Reed City
Kowaleski, Edward H.....Remus
Lincoln, Norman V.....Reed City
Merlo, Frank A.....206 S. Michigan St., Big Rapids
Nelson, Lorenzo R.....R.D. 1, Baldwin
Treynor, Thos. P.....126 E. Maple Ave., Big Rapids
Tyson, James L.....1014 S. State St., Big Rapids
Van Auken, Edward W.....229 S. Warren, Big Rapids
Walters, James E.....1014 S. State St., Big Rapids
White, John A.....121 S. Michigan St., Big Rapids

MENOMINEE COUNTY MEDICAL SOCIETY

Agneberg, Nils O.....531 1st St., Menominee
Anderson, N. O. (A).....Anse A. Galets, La Gonava, Haiti, West Indies
Brukardt, Herman R.....534 First St., Menominee
Clay, Joel W.....1146 Tenth Ave., Menominee
Dewane, Francis J.....413 Tenth Ave., Menominee
Flanagan, Clarence B.....623 First St., Menominee
Glickman, L. Grant.....958 First St., Menominee
Gonty, Arthur.....St. Joseph-Lloyd Hosp., Menominee
Heidenreich, John R.....Daggett
Hopson, George H.....104 Tenth Ave., Menominee
Hopson, Patricia C.....104 Tenth Ave., Menominee
Jones, Wm. S.....1146 Tenth Ave., Menominee
Jones, Wm. S., Jr.....1146 Tenth Ave., Menominee
Kerwell, Karm C.....P.O. Box 17, Stephenson
Olson, Robert C.....104 Tenth Ave., Menominee
Towey, John W.....Pinecrest San., Powers

MIDLAND COUNTY MEDICAL SOCIETY

Ashcom, Richard.....110 W. Sugnet, Midland
Athay, R. M. (R).....4622 Concord Ct., Midland
Ballmer, Robert S.....2715 Ashman St., Midland
Bernier, Joseph A.....Box 26, Sanford
Blackhurst, J. F.....2715 Ashman St., Midland
Blackhurst, Robert T.....Blackhurst Bldg., Midland
Bowsher, Robert E.....2719 Ashman St., Midland
Bridge, Robert G.....2715 Ashman St., Midland
Bulmer, Dan. J.....116 Harold St., Midland
Buskirk, Maurice D.....110 W. Sugnet, Midland
Devlin, James A.....224 E. Larkin, Midland
Ellis, Ruth.....124 Townsend St., Midland
Fields, Dozier N., Jr.....Midland
Gay, Harold H.....Dow Chemical Co., Midland
Gordon, Harold L.....Dow Chemical Co., Midland
Grant, Robert.....116 Harold St., Midland
Grewe, Norman C.....347 E. Main St., Midland
Gronemeyer, Wm. H.....1009 St. Andrews Dr., Midland
Haberstroh, Collen E. B.....907 Eastman Rd., Midland
Heffernan, D. D.....123 E. Main St., Midland
Holder, Benj. B.....Dow Chemical Co., Med. Dept., Midland
Howe, Irvin M.....110 W. Sugnet, Midland
Howell, Richard H.....3418 Applewood Rd., Midland
Ittner, Martin J.....217 N. Saginaw Rd., Midland
Kaasa, Laurin J.....4005 Orchard Dr., Midland
Linsenmann, Karl W.....2604 Manor Dr., Midland
Marks, V. A.....516 Ashman St., Midland
Maynard, Wm. A.....Coleman
Meisel, Edward H., Jr.....148 E. Main St., Midland
Moench, G. Fredk.....401 W. Main St., Midland
O'Hora, Bernard A.....110 W. Sugnet Rd., Midland
Pike, Melvin H.....325 E. Main St., Midland
Pollock, Robert.....Masonic Bldg., Midland
Poznak, Leonard A.....4005 Orchard Dr., Midland
Randolph, Stephen H.....201 E. Ellsworth St., Midland
Redmon, William B.....224 E. Larkin, Midland
Schoff, Charles A.....2912 Ashman St., Midland
Shriner, John W.....1524 Airfield Lane, Midland
Stewart, Richard.....Dow Medical Dept., Midland
Towsley, Wilbur D.....515 W. Main St., Midland
Ulmer, George.....Midland Hospital, Midland
Voikos, Geo. A. (M).....308 Harman, Lubbock, Texas
Willison, Chas. H.....122 Townsend St., Midland
Yobst, G. James.....425 St. Charles St., Midland

MONROE COUNTY MEDICAL SOCIETY

Ames, Florence D.....2 W. Noble Ave., Monroe
Barrett, C. D., Sr.....106 E. First St., Monroe
Blakey, Leonard C.....222 N. Monroe St., Monroe
Bond, Wm. W.....4 E. Front St., Monroe
Burroughs, J. J.....222 N. Monroe St., Monroe
Cigany, Zoltan B.....Carleton
Clark, Bruce.....Temperance
Diehl, Joy O. Stephenson..15463 S. Monroe St., Monroe
Douglas, Dale W.....17 E. First St., Monroe
Dranginis, E. J.....Monroe Hospital, Monroe
Ewing, Robert T.....130 Maple Blvd., Monroe
Flanders, John P.....31 Washington St., Monroe
Frary, Reginald A.....423 E. Elm Ave., Monroe
Freud, John W.....1262 N. Macomb St., Monroe
Hensel, Hilda M.....12 E. 4th St., Monroe
Hnatczuk, Nicholas.....Petersburg
Hunter, Marion A.....35 E. Front St., Monroe
Johnson, A. Esther.....751 N. Monroe St., Monroe
Kelso, Samuel N., Jr.....753 N. Monroe St., Monroe
Laboe, Edward W.....725 N. Monroe St., Monroe
Lammers, Gerald P.....Ida
Loan, G. B.....429 N. Monroe St., Monroe
Long, Edgar C.....1310 N. Macomb St., Monroe
McDonald, Thos. A.....17 E. Elm St., Monroe
McGeoch, Reginald W.....718 N. Macomb St., Monroe
McMillin, John H.....423 E. Elm St., Monroe
Meier, Walter A.....106 E. Front St., Monroe
Middleton, W. S.....219 W. Front St., Monroe
Parmelee, Olin E. (L).....Lambertville
Pinkus, Hermann K. B.....12 E. 4th St., Monroe
Reisig, Albert H.....1 S. Monroe St., Monroe
Sanger, Emerson J. J.....530 S. Monroe St., Monroe
Sisman, Bernard.....749 N. Monroe St., Monroe
Streicher, Robert G.....729 N. Monroe St., Monroe
Tomlinson, Ledyard H.....8702 Main, Newport
Wagar, Spencer H.....31 Washington St., Monroe
Weeks, Vernon L.....326 N. Monroe, Monroe
Wilkins, Rolland W.....757 N. Monroe St., Monroe
Williams, Robert J.....31 Washington St., Monroe
Williamson, Geo. W.....284 Tecumseh St., Dundee

MUSKEGON COUNTY MEDICAL SOCIETY

Allen, Richard T...768 W. Broadway, Muskegon Heights
Anderson, Alfred J.....1371 Peck St., Muskegon
Askam, Ralph F.....1714 Leahy St., Muskegon
Atkinson, Annie L.....1019 Green Creek Rd., North Muskegon
August, Ralph V.....72 E. Broadway, Muskegon Heights
Barnard, Helen S.....33 Diana, Muskegon
Barnes, James W.....102 Professional Bldg., Montague
Benedict, Arthur L., Jr...22 W. Southern Ave., Muskegon
Bloom, Robert E.....305 Liberty Life Bldg., Muskegon
Bolthouse, Robert E.....2416 Peck St., Muskegon Heights
Bond, Wm. H.....1377 Peck St., Muskegon
Boyd, DeVere R.....1735 Peck St., Muskegon
Bradshaw, Park S.....1014 Jefferson St., Muskegon
Bultema, James H.....Mich. Theatre Bldg., Muskegon
Busard, J. Max.....1200 Ransom, Muskegon
Chapin, Wm. S. (A).....2136 Sanford, Muskegon Hts.
Christophersen, J. W.....1276 Lake Shore Dr., Muskegon

Clapp, Henry W.....88 Strong Ave., Muskegon
Closz, Harold F.....283 W. Western Ave., Muskegon
Cohan, Sol G.....1114 Second St., Muskegon
Cronick, Anne B.....1067 Pine St., Muskegon
Dasler, Adolph F.....1507 Peck St., Muskegon
De Leeuw, Henry.....4090 Higate Rd., Muskegon
Diskin, Frank.....309 Jackson Ave., Muskegon
Dykhuizen, H. D.....289 W. Western Ave., Muskegon
Ellis, Nicholas J.....1891 Lake Shore Dr., Muskegon
Engstrom, Albert D.....126 W. Colby, Whitehall
Farmer, John C.....932 Second St., Muskegon
Fillingham, Enid.....870 N. Second St., Muskegon
Fleischmann, Chas. B.....250 W. Webster Ave., Muskegon
Fles, Robert J.....1715 Peck St., Muskegon
Folsom, John D.....1706 Peck St., Muskegon
Fugate, E. M.....412 Hackley Union Bldg., Muskegon
Gaikema, Everett W.....605 First St., Muskegon
Garber, Frank W.....235 Monroe St., Muskegon
Garrison, Robert E., Jr...126 W. Webster Ave., Muskegon
Giese, Douglas H.....204 Mich. Theatre Bldg., Muskegon
Gillard, James L.....1692 Peck St.. Muskegon
Goltz, Martha H. (L).....Montague
Greene, Henry P.....840 Pine St., Muskegon
Griffith, Robert M.....68 E. Broadway, Muskegon Hts.
Hack, Donald W.....1075 Jefferson S., Muskegon
Hanley, W. J.....283 W. Western Ave., Muskegon
Harryman, James E.....1200 Ransom St., Muskegon
Hartwell, Shattuck W...450 W. Western Ave., Muskegon
Harvey, J. G. Klemm.....Mercy Hospital, Muskegon
Heneveld, Edward H.....1603 Peck St., Muskegon
Heneveld, John (R).....517 Catherine, Muskegon
Heneveld, Robert G.....1129 Peck St., Muskegon
Hennessy, Mary E. (A)..1890 Winchester Dr., Muskegon
Holly, Leland E.....876 N. Second St., Muskegon
Holly, Leland E., II.....878 N. Second St., Muskegon
Hopkins, James G.....932 Second St., Muskegon
Hornbeck, Wm. J.....1200 Ransom St., Muskegon
Jesson, Robert M.....1200 Ransom St., Muskegon
Johnston, E. H.....878 N. Second St., Muskegon
Joistad, Arthur H., Jr.....878 N. Second St., Muskegon
Kane, Thos. J.....179 Strong Ave., Muskegon
Kay, Cecelia S.....1533 Peck St., Muskegon
Keilin, Marie (L).....307 Liberty Life Bldg., Muskegon
Kerr, Howard J.....1441 Lake Shore Dr., Muskegon
Kislov, Richard.....1760 Peck St., Muskegon
Kleaveland, Ingram J.....1670 Peck St., Muskegon
Lange, Eugene W.....337 N. Muskegon Blvd., Muskegon
Lapham, Landon M.....Whitehall
Lauretti, Emil J.....289 W. Western Ave., Muskegon
Laurin, Vilda S. (L)....289 W. Western Ave., Muskegon
LeFevre, Geo. L., Jr.....450 W. Western Ave., Muskegon
LeFevre, Wm. M.....289 W. Western Ave., Muskegon
Loder, Leonel L.....289 W. Western Ave., Muskegon
Lowry, Robert A.....2336 Peck St., Muskegon Hts.
Maire, Lewis E.....1633 Peck St., Muskegon
Mandeville, C. B.....289 W. Western Ave., Muskegon
Maples, Douglas E.....402 Center St., N. Muskegon
McDiarmid, D.....3545 Henry, Muskegon
McNair, John N.....936 Second St., Muskegon
Medema, Paul E.....1017 Sanford St., Muskegon
Meengs, Marvin B.....1725 Peck St., Muskegon
Miller, Phillip L.....1755 Peck St., Muskegon
Mulder, Lambertus.....289 W. Western Ave., Muskegon
Mulligan, Allan W. (R)..123 W. Larch Ave., Muskegon
Oden, C. L. A.....287 W. Western Ave., Muskegon
Paterson, Lester C.....1095 3rd St., Muskegon
Pettinga, Frank L.....1603 Peck St., Muskegon
Prentice, Edwin W.....1017 Sanford St., Muskegon
Price, Leonard.....1282 Arthur St., Muskegon
Risk, Robert D.....1160 Ransom St., Muskegon
Scholle, Norbert W.....2500 Peck St., Muskegon Hts.
Sears, Richard.....36 W. Muskegon Ave., Muskegon
Shebesta, Emil M.....1075 Jefferson St., Muskegon
Smith, Myron R.....8478 Mohawk Ct., Montague
Stubbart, F. James.....2416 Peck St., Muskegon Hts.
Swedenburg, Robert D.....886 First St., Muskegon
Swenson, Leland L.....1706 Peck St., Muskegon
Tellman, H. Clay.....289 W. Western Ave., Muskegon
Thieme, Siegfried W. (L)..12213 Stafford St., Ravenna
Thornton, E. S. (L)....289 W. Western Ave., Muskegon
Toy, Chas. M.....1067 Pine St., Muskegon
Tyler, Wm. H.....1435 Peck St., Muskegon
Vandervelde, C. A.....283 W. Western Ave., Muskegon
Vangelder, Wm. C.....289 W. Western Ave., Muskegon
Wagenaar, Edw. H.....404 Liberty Life Bldg., Muskegon
White, Warren G., Jr.....1624 Peck St., Muskegon
Wiersma, Silas C.....289 W. Western Ave., Muskegon
Wildgen, Bernard C.....289 W. Western Ave., Muskegon
Williams, Edward V. (A).....2241 Riordan St., Muskegon Heights
Yegge, J. P.....2212 Peck St., Muskegon Hts.
Young, Malcolm C.....1700 Clinton, Muskegon

NEWAYGO COUNTY MEDICAL SOCIETY

Carter, L. J. Cook.....Grant
Crowe, Findlay C.....White Cloud
Deur, Theodore R.....Grant
DeYoung, Jess.....111 W. Dayton, Fremont
Emerick, Robert W.....Gerber Mem. Hosp., Fremont
Geerlings, Lambert J.....20 N. Division St., Fremont
Klein, J. Paul.....P.O. Box 111, Fremont
Masters, Brooker L.....111 W. Dayton, Fremont
Moore, Hugh R.....Newaygo
O'Neill, John W.....Dist. Health Dept. 5, White Cloud
Painter, Robert.....Grant
Paxton, Robert E.....40 W. Sheridan, Fremont
Pedelty, Norman.....Newaygo
Vanden Berg, Tunis.....20 N. Division Ave., Fremont
Veenschoten, Girard.....Hesperia
Webb, Roy O.....219 Woodrow, Fremont

MEDICAL SOCIETY OF NORTH CENTRAL COUNTIES

Backe, John C.....6401 N. Fifth Ave., St. Petersburg Fla.
Barstow, Richard G.....Gaylord
Blaha, Vernon B.....Grayling
Boehm, John D. (R).....West Branch
Clippert, C. G.....308 Michigan Ave., Grayling
Coulter, Keith D.....Box 138, Alden
Crandell, Clare H. (R).....(No address)
Dosch, Paul.....Grayling
Egle, Jos. L.....Northern Mich. TB San, Gaylord
Forney, Fred A. (L).....320 S. Fairlane, Midland
Hasty, Earl A.....West Branch
Hayes, Louis F.....Gaylord
Henig, Benj. E.....Grayling
Howarth Thos. W.....Gladwin
Jardine, Hugh M.....West Branch
Libke, Robert S.....Gaylord
Martzowka, Martin A.....Roscommon
Oppy, Charles L.....Roscommon
Palm, George W. (A).....Pruddenville
Peckham, Richard C.....Gaylord
Rusak, R. D.....Gladwin
Schaiberger, Geo. L.....West Branch
Stealy, Stanley A.....Grayling
Timreck, Harold A.....Gladwin
Van Oosten, Howard E.....117 Burgess, West Branch
Waltz, Paul.....West Branch
Wiegerink, L. T.....West Branch

NORTHERN MICHIGAN MEDICAL SOCIETY

Allen, Robert F.....Lockwood Hosp., Petoskey
Alm, Bernhard T.....418 Petoskey St., Petoskey
Blum, Benj. B.....Burns Clinic, Petoskey
Burns, Dean C.....Burns Clinic, Petoskey
Cameron, Wm. J. (M).....Mission, Kansas
Conkle, Guy C. (L).....Masonic City, Boyne City
Conklin, Fred. L. (A)..Lockwood Gen. Hosp., Petoskey
Conti, Jos. B.....924 E. Mitchell St., Petoskey
Conway, Wm. S.....Burns Clinic, Petoskey
Crippen, Edward F.....126½ State St., Mancelona
Drake, Gerald.....511 Waukazoo, Petoskey
Duffie, Don H. (L).....Central Lake
Elliott, Dean C.....Burns Clinic, Petoskey
Frye, S. A.....Harbor Springs
Grate, Lawrence E.....112 Clinton St., Charlevoix
Hegener, Aloysius J.....Burns Clinic, Petoskey
Hodges, Roy W. (L).....Mackinaw City
Kirk, Thomas R.....Burns Clinic, Petoskey
Knecht, Richard A.....226 Park Ave., Petoskey
Larson, Walter E.....456 S. Huron, Cheboygan
Lawrie, Guy K.....Burns Clinic, Petoskey
Lentini, Nicholas.....Cheboygan
Litzenburger, A. F.....411 Pearl St., Boyne City
Martin, Robert G.....103 Clinton, Charlevoix
Mateskon, Victor S.....Burns Clinic, Petoskey
Mayne, Frederick C.....P.O. Box 387, Cheboygan
McKnight, Robert D.....Burns Clinic, Petoskey
Mertz, Joanne E.....Burns Clinic, Petoskey
Pearson, Robert E.....215 Water St., Boyne City
Rauch, Carl T.....222 N. Main St., Cheboygan
Reus, Leonard W.....226 Park Ave., Petoskey
Rodger, John R.....Bellaire
Saltonstall, G. B.....112 Clinton St., Charlevoix
Savory, John H.....East Jordan
Stringham, James R. (L).....225 Backus St., Cheboygan
Taylor, Robert M.....Burns Clinic, Petoskey
Van Dellen, Jerrian.....Water St., East Jordan
Webster, Jean H.....Burns Clinic, Petoskey
Weburg, Kathryn D.....Burns Clinic, Petoskey
Zipf, Charles.....Douglas Lake, Pellston

OAKLAND COUNTY MEDICAL SOCIETY

Abbott, Vernon C.....1405 Pontiac State Bank, Pontiac
Adair, Robin.....602 N. Woodward Ave., Birmingham
Adams, Fredk. M...600 N. Woodward Ave., Birmingham
Albert, Donald G.....1665 12 Mile Rd., Berkley
Albrecht, Robert W.....549 Grixdale, Pontiac
Arena, Joseph A., Jr.....22928 Woodward Ave., Ferndale
Arnkoff, Harry.....218 Riker Bldg., Pontiac
Ashare, Raymond.....336 Riker Bldg., Pontiac
Aulie, Hal G...420 Washington Square Bldg., Royal Oak
Awes, Lorraine E.....1411 Pontiac State Bank, Pontiac
Baker, Frederick A. (R).....4575 Motorway Dr., Pontiac
Bannow, Robert J.....880 Woodward Ave., Pontiac
Barker, Chas. P.....214 Wabeek Bldg., Birmingham
Barker, Howard B.....880 Woodward Ave., Pontiac
Barnes, Donald J.....1126 S. Woodward, Royal Oak
Barrett, John L.....264 Wash. Square Bldg., Royal Oak
Bauer, Bruce D.....22643 Stephenson Hwy., Hazel Park
Bauer, Edward G.....101½ N. Saginaw, Pontiac
Bauer, Ernest W.....22643 Stephenson Hwy., Hazel Park
Bauer, E. W., Jr.....22643 Stephenson Hwy., Hazel Park
Beattie, Willard G.....125 W. Nine Mile Rd., Ferndale 20
Beaubien, Mark S.....460 S. Glenhurst Dr., Birmingham
Beck, Otto O.....308 Wabeek Bldg., Birmingham
Becker, Anne M. W.....2453 Huntington Dr., San Marino, Calif.
Belknap, Warren F.....1809 S. Main St., Pleasant Ridge
Berg, Richard H.....23 N. Washington, Oxford
Berger, Chas. J.....1413 S. Washington Ave., Royal Oak
Blackwell, Leonard H.....34 Turner Ave., Winnipeg, Manitoba, Canada
Blakeney, James R.....17 Utica St., Pontiac 11
Blue, Jane.....19125 Hillcrest, Birmingham
Boileau, Thornton I...2075 E. 14 Mile Rd., Birmingham
Bookmyer, Robert M.....1890 Southfield, Birmingham
Boucher, Roman E...306 S. Washington Ave., Royal Oak
Bowers, Chas. L.....199 Barrington Rd., Pontiac
Brady, Neal C.....12688 Memorial, Detroit 27
Brown, Arnold L.....538 Riker Bldg., Pontiac
Bryant, F. W.....201 Washington Sq. Bldg., Royal Oak
Budd, Alexander S. Z.....440 Lake Park Dr., Birmingham
Buehrig, Robert.....5790 M 15, Clarkston
Bullard, R. W., Jr.....5790 M 15, Clarkston
Burger, John H.....1775 E. 14 Mile Rd., Birmingham
Burgess, Chas. M.....23235 Woodward Ave., Ferndale 20
Burke, Chauncey G.....35 W. Huron St., Pontiac
Butler, Samuel A. (L).....Pontiac State Hosp., Pontiac
Byberg, Robert A...420 Washington Sq. Bldg., Royal Oak
Calhoun, Ethel T.....707 Lakeview Ave., Birmingham
Calkins, Edwin A.....37 W. Flint St., Lake Orion
Campbell, K. N.....22928 Woodward Ave., Ferndale
Campbell, Malcolm D.....306 S. Washington Ave., Royal Oak
Carpenter, G. B., Jr.....622 N. Woodward, Birmingham
Carrow, Joyce M.....35 W. Huron St., Pontiac 14
Cefai, Anthony F.....310 Pontiac State Bank, Pontiac
Chandler, Douglas.....1890 Southfield Rd., Birmingham
Chandler, Jos. H.....1401 S. Washington, Royal Oak
Cheng, James T.....7350 Cooley Lake Rd., Pontiac
Childers, Merle A.....180 Oneida, Pontiac
Christensen, Willis L.....109 W. 11 Mile Rd., Royal Oak
Clarke, Harriet A.....130 Seminole, Pontiac
Cline, Alan L.....516 Pontiac State Bank, Pontiac
Cobb, Leon F.....75 W. Huron St., Pontiac 14
Cobb, Thos. H.....880 Woodward Ave., Pontiac
Cohen, Lewis.....26602 Dundee Rd., Huntington Woods
Collins, Edward F., Jr.....35 W. Huron St., Pontiac
Condon, Frank J.....2401 E. Fourth, Royal Oak
Conner, Edward D.....3856 S. Miller Way, Birmingham
Conrad, Cecil D.....3027 N. Woodward Ave., Royal Oak
Cooley, Roy V.....189 Orchard Lake Ave., Pontiac
Cooper, Robert J.....35 W. Huron St., Pontiac 15
Cooper, Robert S...3027 N. Woodward Ave., Royal Oak
Corrigan, K. E., Ph.D. (A).....Wm. Beaumont Hosp., Royal Oak
Coucke, Henry O.....1148 S. Woodward Ave., Royal Oak
Crissman, Howell C...22748 Woodward Ave., Ferndale 20
Crum, Roger E.....440 Riker Bldg., Pontiac
Cudney, Ethan B.....159 Marlborough, Pontiac
Cutler, Wm. M.....16966 Kirkshire, Birmingham
Dahlgren, Carl W.....3021½ Orchard Lake Ave., Keego Harbor
Darling, C. G., Jr.....880 Woodward Ave., Pontiac
Darmstaetter, A. A., Jr.....227 Briggs Bldg., Birmingham
Deighton, Murray N. (M).....4465th Dispensary, USAFB, Myrtle Beach, S. C.
De Jongh, Edwin.....Pontiac Motor Div. GMC, Pontiac
Delaney, Malcolm J.....32316 Grand River, Farmington
De Lawter, Hilbert H.....277 Pierce St., Birmingham
Deutsch, Wm. L.....600 W. 11 Mile Rd., Royal Oak
De Vito, H. Louis.....4011 Baybrook Dr., Drayton Plains
Dobski, Edwin J.....880 Woodward Ave., Pontiac
Doerr, Louis E., Jr.....1413 S. Washington, Royal Oak
Donnelly, Wm. J.....246 S. Telegraph Rd., Pontiac
Dorsey, John M., Jr.....1890 Southfield, Birmingham
Drew, Dale R.....880 Woodward, Pontiac
Dunlap, Gregg L.....2870 Orchard Lake Road, Keego Harbor
Dunn, Lewis E.....3924 12 Mile Rd., Berkley
Durak, Gerald G.....1809 S. Main St., Royal Oak
Durocher, Normand E.....28 N. Saginaw St., Pontiac

Dustin, Robert W.....498 Merritt Lane, Birmingham
Eddy, Corinne S.....Pontiac State Hosp., Pontiac
Ekelund, Clifford T.....35 W. Huron St., Pontiac
Elder, Edward E., Jr.....1116 Voorheis, Pontiac
Endress, Zachary F., Jr.....440 Riker Bldg., Pontiac
Engel, John B.....235 Linden Rd., Birmingham
Ensroth, Jack F.....1100 N. Woodward, Birmingham
Esslinger, John O.....622 N. Woodward Ave., Birmingham
Evseeff, Geo. S.....2685 Amberley Rd., Birmingham
Farnham, Lucius A. (L).....622 Riker Bldg., Pontiac
Ferris, Ralph G.....55 W. Maple Ave., Birmingham
Fink, L. Jerome.....28 N. Saginaw St., Pontiac 11
Fitzpatrick, F. J.....92 Spokane Dr., Pontiac
Flick, John R.....120 W. Second St., Royal Oak
Fox, Ralph M.....Ridgewood Rd., Bloomfield Hills
Furlong, Harold A.....855 W. Huron St., Pontiac
Gaba, Howard B.....17328 Ohio, Detroit
Gaber, Ben.....10851 W. Ten Mile Rd., Oak Park 37
Gadbaw, Jos. J.....Box 436, Farmington
Gaensbauer, F.....127 Illinois St., Pontiac
Galpin, Richard R.....525 Southfield Rd., Birmingham
Garber, Max J.....23603 Farmington, Farmington
Gariepy, Bernard F.....120 W. 11 Mile Road, Royal Oak
Gates, Edward M.....35 W. Huron, Pontiac
Gatley, Cleo R.....97 N. Perry St., Pontiac
Gatley, Leslie W.....97 N. Perry St., Pontiac 14
Gehringer, Norman F.....880 Woodward, Pontiac
Geib, Ormond D.....341 N. Main St., Rochester
Geist, Edgar J., Jr.....413 Woodward St., Rochester
Gell, James W.....35 W. Huron St., Pontiac
Gerls, Frank B. (L).....28 N. Saginaw St., Pontiac 15
Gibson, James C. (L).....432 Union St., Milford
Gibson, Wellington C.....216 E. Commerce, Milford
Gill, Matthew J.....3115 Franklin Rd., Bloomfield Hills
Glen, Harold.....26559 Grand River, Detroit 40
Goerner, Dorothy M. (A).....1500 Henrietta, Birmingham
Goldstein, Herbert.....22100 Coolidge Hwy., Oak Park 37
Goode, Norman J., Jr.....1117 S. Washington Ave., Royal Oak
Gordon, Clayton H.....1099 Cranbrook Rd., Birmingham
Gradolph, Paul L.....23338 Woodward Ave., Ferndale 20
Grant, Wm. A. (L).....Milford
Gray, Murray H.....204 Hickory, Oak Park
Green, J. Donald.....217 Briggs Bldg., Birmingham
Green, Ralph S.....24100 Stratford, Oak Park 37
Green, Willard M.....28 N. Saginaw, Pontiac
Gregoire, Earl (A).....Pontiac General Hosp., Pontiac
Grekin, Thos. D.....603 W. Eleven Mile Rd., Royal Oak
Gustafson, Everette.....35 W. Huron St., Pontiac
Gutterman, Myer A...25085 Coolidge Hwy., Oak Park 37
Haanes, Merle A.....704 Pontiac State Bank, Pontiac
Hackett, Daniel J.....782 Owego Dr., Pontiac
Hagman, George L. (L).....3615 Hunter, Royal Oak
Halsted, Lee H.....33311 Grand River Ave., Farmington
Hammonds, Everett E...304 Barden Rd., Bloomfield Hills
Han, Maolin.....3358 Auburn Rd., Auburn Heights
Hardy, Geo. C. (L).....240 Oak Lane Dr., Rochester
Harvey, Campbell (L).....35 W. Huron St., Pontiac 15
Hassberger, J. B.....620 N. Woodward Ave., Birmingham
Hathaway, Wm. S.....433½ Main, Rochester
Hayden, H. S., Ph.D. (A).....Wm. Beaumont Hosp., Royal Oak
Henderson, James E.....765 Oakleigh Drive, Bloomfield Hills
Henderson, Worth W.....1307 S. Washington, Royal Oak
Hendren, Owen S.....28 N. Saginaw St., Pontiac 14
Henry, Colonel R.....125 W. Nine Mile Rd., Ferndale
Hensley, Chas. B.....248 S. Broadway, Lake Orion
Hershey, Lynn N.....1100 N. Woodward, Birmingham
Hoekman, Aben....1740 Hamilton Drive, Rte. 3, Pontiac
Hoyt, Donald F.....28 N. Saginaw St., Pontiac 14
Hubert, John R.....880 Woodward Ave., Pontiac 14
Hull, Robt. P.....23625 Woodward, Ferndale
Hunter, Donald G.....440 Riker Bldg., Pontiac
Ignatius, Aram A.....1915 E. Nine Mile Rd., Ferndale 20
Jacknow, Albert.....1215 Pontiac St. Bk. Bldg., Pontiac
Jacobi, Rodman C.....37 N. Washington, Oxford
James, Robert E., Jr.....246 S. Telegraph, Pontiac
Karow, Juliette S. (A).....75 Maywood, Birmingham
Kay, Sherman A.....1401 S. Washington, Royal Oak
Kazdan, Louis L...13801 W. Nine Mile Rd., Oak Park 37
Keeffe, Eugene J.....900 Woodward Ave., Pontiac
Kemp, Felix J.....880 Woodward Ave., Pontiac
Kemp, W. Lloyd.....525 Southfield Rd., Birmingham
Kendrick, H. F., Jr.....35 W. Huron St., Pontiac
Ketchum, Jesse.....1126 S. Woodward, Royal Oak
Klewicki, H. A.....22720 Woodward, Ferndale 20
Koehler, Wm. H.....4416 Far Hill Dr., Birmingham
Koltonow, Lawrence.....The Haven San, Rochester
Kozlow, Clifford S.....4274 N. Woodward, Royal Oak
Kozlow, Louise E. A.....4274 N. Woodward, Royal Oak
Kozonis, Michael C.....28 N. Saginaw St., Pontiac
Kripke, Morton J.....2635 Coolidge, Berkley
Kuhel, Eli H.....24764 Southfield Rd., Detroit 35
Kuhn, Anne C.....4274 N. Woodward, Royal Oak
Kuhn, Henry H.....817 E. Eight Mile Rd., Hazel Park
Kuhn, Robt. E.....4274 N. Woodward, Royal Oak
Kurnetz, Ruben.....10851 W. Ten Mile Rd., Oak Park
LaCore, Ivan A.....265 S. Josephine, Pontiac
Ladd, James E.....1100 N. Woodward, Birmingham
Lahti, Paul T.....264 Washington Sq. Bldg., Royal Oak
Lamarche, Norman O.....2827 Woodward, Berkley
Lambert, Alvin G.....3027 Woodward, Royal Oak
Lambie, John S. (L).....280 Aspen Rd., Birmingham
Landry, Roy A.....5807½ Dixie Highway, Waterford
Larson, Alvin R.....880 Woodward Ave., Pontiac
Laux, Philip J., Jr.....3027 N. Woodward, Royal Oak
Leach, Chas. A., Jr.....525 Southfield Rd., Birmingham
Leahy, Etta Link.....600 Eleven Mile Rd., Berkley
Levine, Bernard.....25101 Coolidge St., Oak Park 37
Lewis, Sol M.....541 W. Oakridge, Ferndale
Lichtwardt, Harry E.....606 N. Woodward Ave., Birmingham
Ling, T. W.....Box 436, Farmington
Linn, Herman J.....3601 W. 13 Mile Rd., Royal Oak
Lockwood, Clement E. (L).....113 Martha St., Holly
Longyear, Harold W.....3019 N. Woodward, Royal Oak
Lowery, Anthony J.....1538 Union Lake Rd., Pontiac
Lussos, A. S.....70 Bloomfield Terrace, Pontiac
Lutes, Byron B.....195 W. Nine Mile Rd., Ferndale
Lyons, Robt. T.....200 Oneida, Pontiac
Manz, Howard N.....23607 Farmington Rd., Farmington
Margrave, Edmund D...306 W. Ten Mile Rd., Royal Oak
Margulis, R. Ralph.....1100 N. Woodward Ave., Birmingham
Mark, Hansi.....21934 Stephenson Hwy., Hazel Park
Markley, John M.....655 Ridge Rd., Bloomfield Hills
Marra, John J.....461 W. Huron St., Pontiac
Martin, Francis A.....880 Woodward, Pontiac
Mason, Robt. J.....618 N. Woodward Ave., Birmingham
Mathes, Chas J.....24414 Farmington Rd., Farmington
McCain, French H.....628 N. Woodward Ave., Birmingham
McCandliss, D. H.....1080 W. Huron St., Pontiac
McConkie, James P.....2425 W. Lincoln, Birmingham
McElroy, Wm. J., Jr.....420 East Fourth St., Royal Oak
McEvoy, Francis J.....1715 Crooks Rd., Royal Oak
McHugh, James M.....20131 James Couzens, Detroit 35
McInerney, Thos. S.....2026 Laurome, Royal Oak
McIntyre, Kenneth E.....779 Grand Marais, Grosse Pointe Park
McLaughlin, J. H.....614 North Woodward, Birmingham
McNeill, Howard H.....83½ S. Saginaw St., Pontiac 14
McPhee, Edward C.....880 Woodward, Pontiac
McWhirter, W. W...1401 S. Washington Ave., Royal Oak
Mehas, Constantine P.....300 Hickory Grove, Bloomfield Hills
Meinke, Herman A.....817 E. Eight Mile Rd., Hazel Park
Meisner, Harry E.....25497 Hereford, Huntington Woods
Mercer, Frank A.....28 N. Saginaw St., Pontiac
Merrill, Lionel N. (R).....Box 125, Naubinway
Milgrom, Sidney.....1229 S. Washington St., Royal Oak
Miller, Arthur C.....17988 Buckingham, Birmingham

Miller, Hazen L.....306 S. Washington Ave., Royal Oak
Miller, Hubert.....Pontiac State Hosp., Pontiac 11
Miller, Sidney.....604 N. Woodward, Birmingham
Mimura, James T.....1401 S. Washington, Royal Oak
Mitchell, Burton M. (R).....Inverness Sylvan Village, Pontiac
Moloney, James C.....1600 Daines, Birmingham
Monroe, John D.....1070 N. Tele, Pontiac
Montgomery, J. C.....25717 Coolidge, Oak Park 37
Morin, Leonard A.....13300 Oak Crest Court, Oak Park 37
Morton, James A.....900 Woodward Ave., Pontiac
Mueller, Elmer J.....1775 E. Fourteen Mile, Birmingham
Mumby, Clinton J.....1115 Pontiac State Bank, Pontiac
Munson, Harry L.....Pontiac Trail, Walled Lake
Nalepa, Eugene J.....880 Woodward Ave., Pontiac
Naz, John F.....5790 M. 15, Clarkston
Neafie, Charles A. (L)....1070 N. Telegraph Rd., Pontiac
Nessel, Jack H.....35 W. Huron St., Pontiac
Newcomb, Arnold B.....19834 Riverside Dr., Birmingham
Newlander, W. O.....28119 John R Street, Madison Heights
Nichamin, Samuel J.....25085 Coolidge Hwy., Oak Park
Nickerson, Ivey D.....6245 Golfview Dr., Birmingham
Nosanchuk, Jos. I.....28 N. Saginaw St., Pontiac
O'Donnell, C. H.....23338 Woodward Ave., Ferndale 20
Oliphant, Wm. W. .....37 W. Flint St., Lake Orion
Olsen, Richard E.....900 Woodward Ave., Pontiac
Ormond, John K. (L).....880 Woodward, Pontiac
Ott, Harold A.....3019 N. Woodward, Royal Oak
Palmer, Hayden D.....35 W. Huron St., Pontiac
Patrick, Chas. I.....4721 Dixie Hwy., Drayton Plains
Pauli, Theodore H.....35 W. Huron St., Pontiac 14
Payton, Chas. F.....1719 Crooks Rd., Royal Oak
Pear, Erwin G.....3027 N. Woodward Ave., Royal Oak
Pearce, James F.....306 S. Washington Ave., Royal Oak
Peeke, Edwin S. (A).....1434 Cove, Dallas 16, Texas
Pelletier, Chas J.....1625 E. Fourth St., Royal Oak
Petroff, Geo. N.....219 Cherokee Dr., Pontiac
Peirce, Wm. H.....600 N. Woodward, Birmingham
Porritt, Ross J.....35 W. Huron St., Pontiac 14
Porter, Kenneth F.....4333 Buckingham, Royal Oak
Ports, Preston W.....33108 Grand River Ave., Farmington
Poznanski, W. A...1100 N. Woodward Ave., Birmingham
Prather, Frank W.....347 N. Main, Milford
Prevette, Isaac C.....10 W. Huron St., Pontiac 14
Pridmore, John.....493 Tilmore Dr., Pontiac
Prosser, M. G.....3803 Elizabeth Lake Rd., Pontiac
Quarton, Albert E., Jr.....542 Pilgrim Rd., Birmingham
Quinn, James R., Jr.....2070 W. Valley Rd., Bloomfield Hills
Raynale, George P. (L)..302 Wabeek Bldg., Birmingham
Read, James A.....175 E. Hickory Grove Rd., Bloomfield Hills
Rech, Wm. R.....Mackenzie Clinic, Walled Lake
Reid, Fred T.....49 W. 14 Mile Rd., Clawson
Reutter, Carolyn.....3045 Edgewater, Pontiac
Richard, Robert E.....1719 Crooks Rd., Royal Oak
Richardson, Robt. P.....25717 Coolidge, Oak Park 37
Riggs, Harry L.....31 Orchard Lake Ave., Pontiac
Riker, Aaron D.....35 W. Huron St., Pontiac
Roehm, Harold R.....319 Wabeek Bldg., Birmingham
Rowley, Laurie G.....4400 Dixie Highway, Drayton Plains
Rupp, Edson G., Jr.....1775 E. Fourteen Mile, Birmingham
Rush, Alva D., Jr.....391 Hamilton, Birmingham
Ruskin, David S.....26021 Coolidge, Oak Park
Russell, Vincent P.....324 Washington Sq. Bldg., Royal Oak
Rutzky, Julius.....St. Joseph Mercy Hosp., Pontiac
Ruva, Jos. J.....9280 Club Dr., Rte. 3, Bloomfield Hills
St. John, Harold A.....35 West Huron St., Pontiac 15
Salem, Edward S. (A).....14520 Sherwood, Oak Park
Salisbury, C. S.....21580 Greenfield, Oak Park 37
Samborski, Anne H.....32316 Grand River, Farmington
Sanford, Glenn A.....1080 W. Huron, Pontiac
Sansone, Thos. J.....413 Woodward St., Rochester
Satersmoen, Theodore.....Pontiac State Hosp., Pontiac
Schirle, Jos. L.....1116 Voorheis Rd., Pontiac
Schlecte, Eve M.....120 Second Ave., Rochester
Schlecte, I. Carl.....120 Second Ave., Rochester
Schmitt, Phillip E.....1775 E. 14 Mile, Birmingham
Schoenfeld, Robt. J.....316 Wabeek Bldg., Birmingham
Scholes, Daniel R.....277 Pierce St., Birmingham
Schorling, Otis W.....815 N. Main, Rochester
Schuneman, Howard A.....23760 Woodward Ave., Pleasant Ridge
Seaborn, Arthur J...1413 S. Washington Ave., Royal Oak
Segula, Robt. L.....35 W. Huron St., Pontiac 15
Selman, John H.....3306 Auburn Rd., Auburn Heights
Selman, Robert..65 Bloomfield Terrace Apts., Pontiac 19
Sempere, Chas. R.....2225 Avondale, Pontiac
Sewell, Geo. R.....6181 Indianwood Trail, Birmingham
Shadley, Maxwell L.....94 Ottawa Dr., Pontiac
Sheffield, Loren C.....35 W. Huron, Pontiac
Sheridan, Francis M.....1307 S. Washington St., Royal Oak
Sills, Richard D.....18300 Freeland, Detroit 35
Simpson, Edward K. (L)....4158 Elmhurst Rd., Pontiac
Simpson, John R.....2480 W. Maple Rd., Birmingham
Smith, Carleton A.....225 Guilford Road, Bloomfield Hills
Smith, Donald S.....135 Wenonah Dr., Pontiac
Smith, Geo. E.....629 Washington Sq. Bldg., Royal Oak
Snyder, Arthur M.....23200 Woodward Ave., Ferndale 20
Somers, Donald C...2338 N. Woodward Ave., Royal Oak
Somerville, Wm. J.....145 Cambridge, Pleasant Ridge
Sosin, Allen.....23603 Farmington Rd., Farmington
Spademan, Loren C.....484 Warren Court, Birmingham
Spencer, Lloyd H...1219 S. Washington Ave., Royal Oak
Spoehr, Eugene L.....22832 Woodward Ave., Ferndale 20
Spohn, Earle W.....201 S. Center St., Royal Oak
Stageman, John C.....28 N. Saginaw St., Pontiac
Stahl, Harold F.....850 Lapeer Rd., Oxford
Stanley, Wm. F.....1148 S. Woodward, Royal Oak
Starker, Clarence T. (L)....80 E. Iroquois Road, Pontiac
Steffes, Everette M.....3345 Coolidge Highway, Berkley
Stein, Edward.....25721 Coolidge, Oak Park 37
Steinberg, Norman N.....1223 S. Washington Ave., Royal Oak
Stolpman, A. Kenneth....640 N. Woodward, Birmingham
Stratton, Donald P.....3601 W. 13 Mile Rd., Royal Oak
Stuecheli, Milton B.....1084 Willow Lane, Birmingham
Sutton, Palmer E.....30153 Bristol Lane, Birmingham 5
Swickle, Edward F.....17 S. Main, Clawson
Tauber, Abraham.....28 N. Saginaw St., Pontiac
Touma, Alfred.....735 S. Washington, Royal Oak
Trumpour, Donald J.....414 Main St., Rochester
Urwiller, K. L.....1772 Taunton, Birmingham
Vanden Berg, Kenneth.....35 W. Huron St., Pontiac
Van Fossen, A. W.....700 Bryden Bldg., Columbus, Ohio
Van Zoeren, Jay J.....Haven Sanit., Rochester
Vaught, Richard K.....2009 Crooks Rd., Royal Oak
Virga, Geo. M.....715 N. Main St., Royal Oak
Wagner, Ruth E.....201 W. 11 Mile Rd., Royal Oak
Wake, Douglas L.....1406 Woodsboro, Royal Oak
Wangner, William F.....1401 S. Washington, Royal Oak
Ward, W. Paul.....6631 Castle Drive, Birmingham
Warner, Frederick O.....3245 Sashabaw Rd., Drayton Plains
Watson, Thos. Y.....640 N. Woodward, Birmingham
Weaver, Arthur....809 Pontiac State Bank Bldg., Pontiac
Webber, Lynn F.....7350 Cooley Lake Road, Pontiac
Wegrzyn, George C.....St. Joseph Mercy Hosp., Pontiac
Wendling, Dieter.....1401 S. Washington, Royal Oak
Wessels, Robt. R.....302 Wabeek Bldg., Birmingham
Westfall, Edwin J.....1665 Twelve Mile Rd., Berkley
Westmaas, Wm. J.....364 Roanoke St., Birmingham
White, Robert H.....384 Hamilton Ave., Birmingham
Wiant, John L.....258 Briggs Bldg., Birmingham
Wigent, Ralph D.....809 Pontiac St. Bk. Bldg., Pontiac
Williams, John P.....28 N. Saginaw, Pontiac 14
Willis, Maurice E.....28 N. Saginaw, Pontiac 14
Willis, Robt. L., Jr.....Wm. Beaumont Hosp., Royal Oak
Wilson, Albert C.....Pontiac St. Hosp., Pontiac
Woodward, Robert D.....1100 N. Woodward Ave., Birmingham

Ylvisaker, John R.....880 Woodward Ave., Pontiac
Young, Arthur R.....35 W. Huron St., Pontiac 15
Zackheim, Herschel S...13102 Talbot, Huntington Woods
Zadurowycz, Anton (A).....Wm. Beaumont Hosp., Royal Oak
Zimmerman, Walter J.....32340 Sylvan Lane, Birmingham
Zinterhofer, J. J., Jr.....27621 Santa Barbara Dr., Lathrup Village
Zujko, Alphonse J.....28 N. Saginaw St., Pontiac

OCEANA COUNTY MEDICAL SOCIETY

Davis, Linford J.....315 State St., Hart
Diehl, Clarence E., Jr.....204 N. Mich. Ave., Shelby
Flint, Chas. H. (A).....1037 Arapahoe St., Thermopolis, Wyo.
Hasty, Willis A.....405 State St., Shelby
Mullen, Warren R.....Pentwater
Robinson, Wm. G.....219 State St., Hart
Vrbanac, John J.....R.R. 1, Hart
Wood, Merle G.....19 Courtland St., Hart

ONTONAGON COUNTY MEDICAL SOCIETY

Archibald, Donald H.....Box 223, Ontonagon
Bender, Jesse L. (L).....Greenland
Hogue, Harold B.....Ewen State Bk. Bldg., Ewen
Lahti, Carl R.....800 Zinc St., Ontonagon
Strong, Wm. F.....River St., Ontonagon
Vilardo, Ross.....White Pine

OTTAWA COUNTY MEDICAL SOCIETY

Arendshorst, Wm.....121 W. 24 St., Holland
Bazuin, Chas. H.....313 N. River Ave., Holland
Beernink, Ernest H.....408 Fulton St., Grand Haven
Bloemendaal, Dirk C.....351 N. Main St., Zeeland
Bloemendal, W. B.....224 Washington St., Grand Haven
Boersma, Vernon L.....121 W. 24 St., Holland
Bonzelaar, Alvin.....788 Columbia, Holland
Boone, Cornelius E.....22 E. Central Ave., Zeeland
Bulthuis, Jerry E.....Jamestown
Clark, Nelson H.....17 W. 10th St., Holland
Cook, Carl S.....121 W. 24th St., Holland
De Vries, Harold G.....30 E. 9th St., Holland
De Vries, Peter J.....214 Washington St., Grand Haven
De Young, Frederick W.....Spring Lake
Endean, Donald H.....121 West 24th St., Holland
Frieswyk, Melvin J.....241 E. Main St., Zeeland
Groat, Frank L.....631 Franklin St., Grand Haven
Hager, Ralph.....Hudsonville
Hamelink, Marinus H.....700 W. 26th St., Holland
Harms, Herman P.....17 W. 10th St., Holland
Heard, Wm.....504 Park St., Grand Haven
Kearney, Jos. B.....121 W. 24th St., Holland
Kemme, Gerrit J.....R. No. 3, Zeeland
Kitchel, John H.....414 Franklin St., Grand Haven
Kitchel, Mary F. S.....414 Franklin St., Grand Haven
Kools, Wm. C.....194 W. 11th St., Holland
Kuipers, Siebe W.....93 E. 29th, Holland
Long, Chas. E. (L).....222 Franklin St., Grand Haven
McArthur, Peter A.....414 Franklin, Grand Haven
Moerdyk, Wm. J.....120 W. 14th St., Holland
Nykamp, Russell R.....111 E. Main St., Zeeland
Post, J. Jay.....Allendale
Rottschaefer, Wm.....17 W. 10th St., Holland
Rypkema, Willard M.....228 Washington, Grand Haven
Schaftenaar, R. H.....86 E. 28th St., Holland
Smit, George J.....Holland
Smit, Henry.....Hamilton
Stobbelaar, Robt. H.....107 S. Second, Grand Haven
Ten Have, Ralph.....1030 Orchard, Grand Haven
Ten Pas, Henry W.....293 W. 29th St., Holland
Timmerman, Eugene C.....Coopersville
Van Appledorn, C. J.....99 W. 23rd St., Holland
Vander Berg, Edwin E.....17 W. 10th St., Holland
Vande Waa, Alfred J.....200 E. Main St., Zeeland
Van Der Velde, Otto.....33 W. 8th St., Holland
Van Kolken, P. J.....509 Franklin Ave., Grand Haven
Veenstra, Bernard M.....Grand Haven
Verkaik, Peter.....Hudsonville
Ver Duin, John W.....223 Washington St., Grand Haven
Wells, Kenneth N.....119 W. Savidge St., Spring Lake
Westrate, Warren K.....17 W. 10th St., Holland
Westrate, Wm., Jr.....17 W. 10th St., Holland
Westrate, Wm., Sr.....17 W. 10th St., Holland
Winter, John K.....726 State St., Holland
Winter, Wm. G., Jr.....630 State St., Holland
Yff, John H.....511 E. Central, Zeeland
Yonkman, Frederick F...58 Pomeroy Rd., Madison, N. J.

SAGINAW COUNTY MEDICAL SOCIETY

Ackerman, Gerald L.....124 S. Jefferson Ave., Saginaw
Albers, Millard J.....1227 N. Michigan Ave., Saginaw
Anderson, Wm. K.....404 S. Warren Ave., Saginaw
App, Robt. G.....520 W. Genesee Ave., Saginaw
Bagley, Ulysses S. (R).....1401½ N. Sixth St., Saginaw
Bass, Vernon V.....826 N. Michigan Ave., Saginaw
Bellinger, Don H. (A).....501 2nd Natl. Bank Bldg., Saginaw
Berberovich, Thos. F.....2005 N. Michigan St., Saginaw
Bishop, Harry M.....515 S. Jefferson Ave., Saginaw
Brender, Freidrich P.....Frankenmuth
Brock, Wm. H. (L).....728 N. Mich. Ave., Saginaw
Bruggers, Laurence.....1703 N. Michigan Ave., Saginaw
Bucklin, Robt. V.....1447 N. Harrison St., Saginaw
Bullington, Bert M.....2000 Court St., Saginaw
Burnett, Quinter M.....1714 Union St., Saginaw
Busch, Frank J.....1731 N. Michigan St., Saginaw
Butler, Milton G.....502 S. Jefferson Ave., Saginaw
Cady, Donald J.....1213 N. Michigan Ave., Saginaw
Cady, Frederick J., Jr.....402 S. Jefferson Ave., Saginaw
Cady, Frederick J.....402 S. Jefferson Ave., Saginaw
Cameron, Allan K.....1314 S. Jefferson Ave., Saginaw
Campbell, Lloyd A. (R).....335 Brockway Pl., Saginaw
Caumartin, Hugh T.....1537 S. Washington Ave., Saginaw
Chisena, Peter R.....6221 Dixie, Bridgeport
Choate, Frances S.....1213 N. Michigan Ave., Saginaw
Claytor, Archer A.....603 N. 3rd Avenue, Saginaw
Cortopassi, Andre J.....326 S. Washington Ave., Saginaw
Cortopassi, Vital E.....324 S. Washington Ave., Saginaw

Cory, Chas. W.....1227 N. Michigan, Saginaw
Cresswell, T. A.....319 1st Savings & Loan, Saginaw
Cullen, Geo. (A).....2529 N. Clinton St., Saginaw
Curts, James H.....1205 N. Michigan Ave., Saginaw
Davenport, Clyde P.....703 W. Genesee, Saginaw
Derifield, R. S. (A).....25 Westbrook Ct., Saginaw
De Young, William A.....830 S. Jefferson, Saginaw
Dowidat, Raymond W. (A).....608 Westfield, Saginaw
Durman, Donald C.....408 S. Jefferson Ave., Saginaw
Ely, Cecil W.....1820 Janes Ave., Saginaw
Ernst, Arthur R. (R)..4004 Woodland Dr., McLean, Va.
Farley, Albert W.....1803 N. Michigan Ave., Saginaw
Feeheley, Robt. D.....3521 State, Saginaw
Fleschner, Thos. E.....Birch Run
Friedrick, David F. (A)....4620 Monroe Blvd., Dearborn
Gage, David P.....2002 Court St., Saginaw
Galsterer, Edwin C.....128 S. Jefferson Ave., Saginaw
Gamon, Adam E., II.....2004 Court St., Saginaw
Gardner, Joe H.....815 N. Michigan Ave., Saginaw
Gerard, Roy J.....1500 Gratiot, Saginaw
Gilmore, Robt. D.....234 W. Saginaw, Merrill
Goldner, Richard D.....1024 N. Michigan, Saginaw
Gomon, Louis D.....1203 N. Michigan Ave., Saginaw
Goodsell, J. Orton D.D.S. (A)..501 2nd Natl. Bank Bldg., Saginaw
Goodsell, John O.....408 S. Jefferson, Saginaw
Goodwin, J. E.....418½ W. Genesee, Saginaw
Grigg, Arthur P.....320 N. Michigan Ave., Saginaw
Hand, Eugene A.....126 N. Franklin St., Saginaw
Harvie, Lloyd C.....112 S. Jefferson Ave., Saginaw
Heavenrich, Robt. M.....1107 Gratiot Ave., Saginaw
Heilbronn, Duane B.....1703 N. Michigan, Saginaw
Helmkamp, Herbert O.....333 S. Jefferson, Saginaw
Hester, Eustace G.....2031 N. Michigan Ave., Saginaw
Hill, Victor L.....124 S. Jefferson Ave., Saginaw
Howell, Donald M.....112 S. Jefferson Ave., Saginaw
Hubinger, H. L. (A).....501 2nd Natl. Bank Bldg., Saginaw
Hyslop, Wm. T.....1610 Gratiot Ave., Saginaw
James, John W.....1021 W. Genesee St., Saginaw
Jarvi, Rudolph M.....1107 Gratiot Ave., Saginaw
Jiroch, Ralph S. (L)....202 Wiechmann Bldg., Saginaw
Johnstone, Kermit T.....Box 2272 S. Side P. O., Saginaw
Jordan, Leo A.....1524 E. Genesee St., Saginaw
Keyes, James T.....10222 Maple Rd., Birch Run
Kerr, Wm. B.....300 S. Michigan St., Saginaw
Kickham, Edward F.....309 S. Jefferson Ave., Saginaw
Kidd, James G. (A).....1500 Weiss St., Saginaw
Kleekamp, Herbert G.....1005 Gratiot Ave., Saginaw
Kleinschmidt, Earl E.....3625 Webber St., Saginaw
Kolesar, Robt. C.....1005 Gratiot, Saginaw
Kowals, Francis V...Med. Dir. Chec. Ser. GMC, Saginaw
Kramer, Chas. G.....2313 Greenbush Pl., Saginaw
Lassignal, Jules C.....2125 Bay St., Saginaw
Ling, Ernest M. (R).....R.D. 2, Spring Lake
Ling, Kenneth C.....Hemlock
Lohr, Oliver W.....Box 806, Saginaw
Lohr, Thos. O.....1135 N. Michigan Ave., Saginaw
Love, Neil W.....505 W. Tuscola, Frankenmuth
Luger, Frederick E.....303 N. Jefferson Ave., Saginaw
Lurie, Robt. I.....2525 S. Washington Ave., Saginaw
Lyle, Richard C.....Bridgeport
Mahaney, Thos. P.....3521 State Street, Saginaw
Manning, John E.....815 N. Michigan Ave., Saginaw
Manning, John W., III.....203 Ardussi, Saginaw
Markey, Francis L.....808 N. Michigan Ave., Saginaw
Martzowka, Wm. P.....415 W. Genesee St., Saginaw
Mason, Wm. G.....1107 Gratiot Ave., Saginaw
Matthews, Harry C.....1227 N. Michigan Ave., Saginaw
Maurer, John.....1109 Elmdale, Saginaw
Mayne, Harold E.....120 N. Michigan, Saginaw
McEwen, Wm. G.....305 Graebner Bldg., Saginaw
McKinney, A. R. (L)....330 S. Washington St., Saginaw
Meadows, Jos. M. (A).....Ypsilanti St. Hosp., Ypsilanti
Meyer, Henry J. (L).....(No Address)
Miller, Glenn F.....404 S. Warren Ave., Saginaw
Moon, A. Raymond.....1008 Hancock, Saginaw
Morgrette, Leonard J.....603 S. Jefferson Ave., Saginaw
Mudd, Richard D.....Chev. Grey Foundry, Saginaw
Murphy, Albert P.....303 N. Michigan Ave., Saginaw
Murray, Morris J.....603 S. Jefferson Ave., Saginaw
Nelson, Oscar A.....120 N. Michigan Ave., Saginaw
Noble, Paul R.....1447 N. Harrison, Saginaw
Northway, Robt. O.....124 S. Jefferson Ave., Saginaw
Novy, Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Carl P.....2505 Court St., Saginaw
Ostrander, Frank W. (L).....Freeland
Phillips, Homer A.....124 S. Jefferson Ave., Saginaw
Pickett, W. H. (R).....216 S. W. Second St., Gainesville, Fla.
Pietz, Frederick.....221 N. Michigan Ave., Saginaw
Pleune, Russell E. (A).....1500 Weiss St., Saginaw
Potvin, Clifford D.....826 N. Michigan Ave., Saginaw
Powers, Robert F.....142 Wylie, Saginaw
Prather, Perry E.....1227 N. Mich. Ave., Saginaw
Prinsell, Gustave G. (M).....65 Gower St., London WC 1, England
Rector, Robt. D. (A).....2201 State St., Saginaw
Reimers, Gerald F.....4046 Hess Street, Saginaw
Richards, Ned W.....3518 State St., Saginaw
Richter, Harry J.....121 E. Genesee St., Saginaw
Roggen, Ivan J.....1227 N. Michigan, Saginaw
Ruskin, Dave B.....120 N. Michigan Ave., Saginaw
Ryan, Richard S.....633 S. Washington Ave., Saginaw
Sample, John T. (L).....Box 2254, Saginaw
Sargent, Donald V.....1703 N. Michigan Ave., Saginaw
Schaiberger, E. G. (R)....10164 Dixie Hgwy., Birch Run
Schneider, A. J. N.....509 S. Jefferson Ave., Saginaw
Schultz, Frank R.....147 W. Broad St., Chesaning
Sharp, Martin C.....1803 N. Michigan Ave., Saginaw
Shek, John L.....808 N. Michigan Ave., Saginaw
Sheldon, Suel A.....124 S. Jefferson, Saginaw
Siler, D. E.....1827 N. Michigan Ave., Saginaw
Skowronski, C. A.....1401 E. Genesee St., Saginaw
Slack, Walter K.....625 S. Jefferson, Saginaw
Slade, Homer G.....1520 N. Michigan Ave., Saginaw
Stahly, Edward H.....Saginaw County Hosp., Saginaw
Stander, Aaron C.....1411 Court St., Saginaw
Stewart, Geo. W.....1902 Janes St., Saginaw
Sulfridge, Hugh L., Jr.....512 N. Michigan Ave., Saginaw
Thompson, Arthur B.....2328 E. Genesee St., Saginaw
Tiedke, Gunther E.....120 N. Michigan Ave., Saginaw
Toshach, Clarence E.....3655 Schust Rd., Saginaw
Vitu, Robert L.....808 N. Michigan Ave., Saginaw
Volk, Vladimir K.....Saginaw Co. Hosp., Box 65, Saginaw
Wallace, Herbert C. (M).....APO 205 New York, New York
Webb, Walter L.....1502 Wadsworth, Saginaw
Weiss, Arno W.....3521 State St., Saginaw
Westlund, Norman.....349 S. Weadock, Saginaw
Wright, Edwin M.....128 Lynn, Saginaw
Yntema, Stuart.....331 S. Jefferson Ave., Saginaw

ST. CLAIR COUNTY MEDICAL SOCIETY

Bailey, Robt. S.....400 Mich. Bank Bldg., Port Huron
Banting, Kenneth C.....403 Peoples Bank Bldg., Port Huron
Barss, J. A.....1209 Tenth St., Port Huron
Battley, John C. S.....940 Military St., Port Huron
Beck, Frank K.....901 Lapeer Ave., Port Huron
Beer, Jos. F.....104 N. Riverside Ave., Saint Clair
Bennett, Wm. G.....210 S. Main St. Yale
Borden, Chas. L.....216 Sperry Bldg., Port Huron
Bottomley, Thos. H., Jr.....1102 Sixth St., Port Huron
Boughner, Walter H.....325 Pleasant St., Algonac
Bovee, Marion E.....2208 Stone St., Port Huron
Bowden, Wm. S.....137 S. Water St., Marine City
Bridge, Ezra V.....416 Edison Blvd., Port Huron

Brush, Howard O.....612 Peoples Bank Bldg., Port Huron
Cantwell, John D., Jr.....612 Peoples Bank Bldg., Port Huron
Carey, Lewis M. (R).....314 Condict Dr., New Smyrna Beach, Fla.
Carney, Frank V. (R)....1065 N. Riverside St., St. Clair
Carrie, Robt. G.....1423 Michigan Ave., Algonac
Cleland, Wm. D., Jr.....Medical Arts Bldg., Port Huron
Clifford, Robt. P.....506 S. Riverside Dr., St. Clair
Clyne, Benj. C.....103 N. Main St., Yale
Coon, Gerald G. (M)....3501 S. Grate, Denver 22, Colo.
Cooper, Thos. H. (L).....911 Lapeer Ave., Port Huron
Coury, John J., Jr.....1209 Tenth St., Port Huron
Davison, Wm. T.....1108 Military St., Port Huron
Dinnen, Wm. J., Jr.....804 Huron Ave., Port Huron
Douvas, Nicholas G.....311 Pine St., Port Huron
Franke, Armin T.....902 Tenth Ave., Port Huron
Gerrits, James F.....202 Orchard St., St. Clair
Gholz, Anthony C.....Medical Arts Bldg., Port Huron
Gilmore, John R.....317 Mich. Bank Bldg., Port Huron
Hazledine, H. L.....4406 Gratiot Ave., Port Huron
Holcomb, Russell J.....141 S. Main St., Marine City
Hoyt, Chas. N.....804 Huron, Port Huron
James, Freburn L.....1209 Willow St., Port Huron
Kahn, Oscar B.....Capac
Kesl, Geo. M.....316 Sperry Bldg., Port Huron
Kirban, Harry N.....1209 Willow St., Port Huron
Kirker, Findlay O.....1325 Michigan Ave., Marysville
Koch, Donald A.....310 E. Water St., Port Huron
Lauridsen, James.....1010 Pine Grove Ave., Port Huron
LeGalley, K. B.....Persian Gulf, Awali Bahrain
Licker, Reuben R.....525 Court St., Port Huron
Ludwig, Claude A.....916 Seventh St., Port Huron
Ludwig, Frederick E.....916 7th St., Port Huron
Lugg, Robt. M.....940 Military St., Port Huron
MacPherson, C. A. (R)..441 Swing Ave., Louisville, Ky.
Martin, Clyde S. (R).....1740 Via Palermo, Winter Park, Fla.
McColl, Duncan J. (L)....305 Sperry Bldg., Port Huron
Meredith, Evert W.....1102 6th St., Port Huron
Mohney, Glenn E.....311 Pine St., Port Huron
Morris, Alvin N.....204 Sperry Bldg., Port Huron
Novak, Walter S.....310 E. Water St., Port Huron
Patterson, Dorsey W.....622 Huron Ave., Port Huron
Pollock, Donald A. (A).....5014 Lakeshore, Port Huron
Raftery, Michael.....1010 Griswold Street, Port Huron
Rowe, Robt. E.....3360 W. Water St., Port Huron
Sanderson, Jos. L.....515 Pine St., Port Huron
Sands, Geo. E.....310 Water St., Port Huron
Schaefer, Waldo A.....302 Mich. Bank Bldg., Port Huron
Selby, Clarence D.....1916 Military St., Port Huron
Serniak, John A.....104 S. Main St., Yale
Sites, Edgar C.....1209 Tenth St., Port Huron
Tisdel, James H.....310 E. Water St., Port Huron
Tomsu, Glenn F.....310 E. Water St., Port Huron
Townley, Chas. O.....1209 Tenth St., Port Huron
Ulmer, Arthur H., Jr.....1209 Tenth St., Port Huron
Van Rhee, Geo. (L).....323 Peoples Bank, Port Huron
Walker, Sidney C.....1209 Tenth St., Port Huron
Ware, J. Raleigh.....3107 24th St., Port Huron
Wass, Henry C.....Saint Clair
Wetzel, John O. (R).....700 Intercostal Dr., Ft. Lauderdale, Fla.
Yost, Kenneth W.....1305 Gratiot Ave., Marysville

ST. JOSEPH COUNTY MEDICAL SOCIETY

Berg, Lawrence A.....106 E. Chicago Rd., Sturgis
Borden, Igor I.....987 E. Jefferson Ave., Detroit 7
Bradley, D. E.....428 Burr Oak Rd., Colon
Braham, Wilbur G.....111 S. Monroe, Sturgis
Brothers, Paul L.....104 S. Lakeview, Sturgis
Brunson, Allen E.....206 E. West St., Sturgis
Evans, Robt. H.....111 S. Monroe St., Sturgis
Fiegel, S. Albert.....111 S. Monroe St., Sturgis
Fortner, Roscoe J.....137 Portage Ave., Three Rivers
Gillespie, Eleanor M.....103 S. 4th, Sturgis
Jacobowitz, John M.....Lincoln at Millard, Three Rivers
Lamb, Harry.....110 Pleasant Ave., Sturgis
Lepard, Olin L.....104 S. Lakeview, Sturgis
Miller, Chas. G. (L).....106 W. Chicago St., Sturgis
O'Dell, Charles W.....117 Spring St., Three Rivers
O'Dell, John H., Jr.....117 Spring St., Three Rivers
Olney, Harold E.....Leonidas
Pennington, Harry C.....118 S. Kalamazoo, White Pigeon
Penzotti, Stanley C.....117 Spring St., Three Rivers
Porter, Clark G.....226 East St., Three Rivers
Schimnoski, D. R.....Three Rivers Med. Clinic, Three Rivers
Shaw, Geo. D.....117 Spring St., Three Rivers
Sheehan, F. M.....204 S. Clay, Sturgis
Sheldon, John P.....206 E. West St., Sturgis
Slote, Leal K. (L)....540 S. Washington St., Constantine
Smith, Robert D.....Colon
Springer, Russell A. (R).....Rte. 2, Sturgis
Storer, William R.....Centerville
Weisheit, Heinz R.....204 E. West St., Sturgis
Zimont, Chas. R.....Constantine
Zimont, Raymond D.....Constantine

SANILAC COUNTY MEDICAL SOCIETY

Blanchard, Ernest W.....Deckerville
Cripps, James R.....Marlette
Ford, Frances A.....2683 S. Lakeshore Rd., Applegate
Gift, Weldon A.....Marlette
Hart, Robert K.....Croswell
Jayson, Michael H.....6294 E. Marlette St., Marlette
McCrea, John W.....Marlette
McGungele, Keate T.....Sandusky
Muir, Neil.....Croswell
Seager, M. Cole.....Brown City
Smith, Duane E.....Brown City
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, J. C.....Marlette
Winfield, Raymond J.....3014 Main St., Marlette

SHIAWASSEE COUNTY MEDICAL SOCIETY

Arnold, Alfred L., Jr.....812 Bradley St., Owosso
Austin, Eugene S.....635 N. Ball St., Owosso
Bach, Norman F.....113 E. Williams, Owosso
Brown, Richard C.....113 E. Williams St., Owosso
Brown, Richard J.....113 E. Williams St., Owosso
Buzzard, Walter D.....Chesaning
Chipman, Elwood M.....502 W. Williams St., Owosso
Ford, Wm. J. A., Jr.....1310 Shady Lane, Owosso
Graves, James H.....511 W. Main St., Owosso
Grommons, Jack R.....214 N. Saginaw, Durand
Gurden, Elizabeth A. L.....113 E. Williams St., Owosso
Harkness, C. A. (L).....529 Clark Ave., Owosso
Harroun, John E.....105 N. Water St., Owosso
Harroun, R. V.....Matthews Bldg., Owosso

Hoshal, Verne L.....104 W. Clinton, Durand
Lieber, Robert W.....103 E. Clinton St., Durand
Lutton, Robert.....Matthews Bldg., Owosso
MacGregor, John F.....113 E. Williams St., Owosso
Manion, John J.....812 Bradley St., Owosso
McGeehan, J. S.....Matthews Bldg., Owosso
McKnight, Edwin R.....320 N. Washington St., Owosso
Merz, Walter L.....Rte. 3, Owosso
Moore, Phillip J.....113 E. Williams, Owosso
Phillips, Rolland.....Matthews Bldg., Owosso
Pochert, Rolland C.....105 N. Water St., Owosso
Richards, Chester J.....213 Mercer, Durand
Sahlmark, Jos. F.....812 Bradley St., Owosso
Sauer, Peter.....113 E. Williams, Owosso
Shepherd, Walter F.....105 N. Water St., Owosso
Weinkauf, Wm. F.....Corunna
Weston, Claude L.....1226 N. Washington, Owosso

TUSCOLA COUNTY MEDICAL SOCIETY

Anderson, Norma .....Caro
Ballard, James H.....Cass City
Cole, Versa V.....Lock Box A, Caro
Cook, Raymond R.....Akron
Dickerson, Willard W.....Caro State Hosp., Caro
Donahoe, Harold T.....Pleasant Home Hosp., Cass City
Dunn, Chas. W.....State Hosp., Caro
Elmendorf, E. N., II.....Vassar
Flett, Richard O.....Millington
Gilbert, Donald E.....Mayville
Gugino, Frank J.....Reese
Howlett, Robert R.....624 W. Frank St., Caro
Loree, Joseph E.....Caro State Hosp., Caro
Merrill, Elmer H.....147 W. Lincoln St., Caro
Miles, Edward J.....Caro
Nigg, Herbert L.....Caro
Savage, Lloyd L.....147 W. Lincoln, Caro
Swanson, Ewald C.....220 N. Main, Vassar
Von Renner, Otto (L).....837 W. Huron St., Vassar

VAN BUREN COUNTY MEDICAL SOCIETY

Boothby, Carl F.....Hartford
Boothby, Fredk. M.....Lawrence
Boothby, Paul.....Lawrence
Bope, Wm. P. (L).....Decatur
Buckborough, M. W.....511 Huron St., South Haven
Cooper, Jos. E.....417 W. Monroe St., Bangor
Copeland, Evan.....Decatur
Diephuis, Bert.....511 Huron St., South Haven
Dillon, Thos. J.....R.F.D. 3, Paw Paw
Gano, Avison.....417 Monroe St., Bangor
Holm, Leo H.....Gobles
Itzen, John F.....P.O. Box 128, South Haven
Johnson, Harold C. A.....304 Oak St., Paw Paw
Kleber, John A.....311 Center St., South Haven
Lawther, John.....P.O. Box 191, Hartford
Loomis, Frank J.....Paw Paw
McFadden, Roscoe I.....Bloomingdale
Millard, David.....Paw Paw
Morgan, Dale K.....326 Michigan Ave., South Haven
Parks, Arthur E.....Lawton
Stagg, Adelbert L.....9 N. Maple St., Hartford
Steele, Arthur H.....Paw Paw
Ten Houten, Charles.....Paw Paw
Terwilliger, Edwin H.....326 Michigan Ave., South Haven
Urist, Martin J.....R.D. 1, South Haven
Young, Wm. R.....Lawton

WASHTENAW COUNTY MEDICAL SOCIETY

Alford, Barry H.....690 S. Main St., Plymouth
Allaire, Francis J. (A).....801 Loyola, Ann Arbor
Allen, Arthur W.....5 Harvard Pl., Ann Arbor
Anderson, David G. (A).....627 Westwood, Ann Arbor
Atchison, Russell M.....501 Dunlap, Northville
Badgley, Carl E.....1313 E. Ann St., Ann Arbor
Bailey, Robert W.....University Hosp., Ann Arbor
Bailey, Wm. C. (A).....University Hosp., Ann Arbor
Banghart, Norman L.....1950 Manchester Rd., Ann Arbor
Barker, Paul S.....1313 E. Ann St., Ann Arbor
Barlow, R. Craig.....326 N. Ingalls St., Ann Arbor
Barnwell, John B.....V.A. Bldg., Washington 25, D. C.
Barss, Wm. A.....525 W. Cross St., Ypsilanti
Bass, Thos. J.....201 S. Hamilton, Ypsilanti
Bassow, Paul H.....St. Joseph Hosp., Ann Arbor
Bauer, Gerhard H.....2015 Manchester Rd., Ann Arbor
Bauer, Jere M.....1313 E. Ann St., Ann Arbor
Beatty, James B. (A).....722 Linda Vista, Ann Arbor
Beckett, Morley B.....912 Honey Creek Dr., Ann Arbor
Behrman, Samuel.....1313 E. Ann St., Ann Arbor
Beierwaltes, Wm. H.....1204 Bydding Rd., Ann Arbor
Beljan, John R. (A).....1930 Sunrise St., Ann Arbor
Bell, Margaret (L).....15 Geddes Heights, Ann Arbor
Belser, Walter.....2101 Woodside Rd., Ann Arbor
Bender, Leonard F.....1313 E. Ann St., Ann Arbor
Bentley, Fredk. E.....851 S. Main St., Plymouth
Bicknell, John N. (A).....1381 Jeffrey, Ypsilanti
Biggs, Robert D. (A).....1453 Sunset, Ann Arbor
Bird, H. Waldo, Jr.....1313 E. Ann St., Ann Arbor
Bishop, Ronald C.....1011 Lincoln Ave., Ann Arbor
Blair, Thomas C. (A).....2938 Shady Lane, Ann Arbor
Block, George E. (A).....University Hosp., Ann Arbor
Bolt, Robert J.....University Hosp., Ann Arbor
Bosch, Jan K.....302 W. Main St., Northville
Bostian, David W.....304½ S. State St., Ann Arbor
Botch, Edmund S.....115 E. Liberty St., Ann Arbor
Botsford, James H.....233 Adams, Chelsea
Brewer, Wilson K.....720 E. Catherine St., Ann Arbor
Brody, Gerald L. (A).....1120 Martin Pl., Ann Arbor
Brown, Philip N.....Northville State Hosp., Northville
Brown, Wm. E., III.....1517 Granger Ave., Ann Arbor
Bryant, H. C.....334 E. Catherine, Ann Arbor
Bull, Frances E.....Simpson Memorial Inst., Ann Arbor
Burks, Henry L.....725 N. University, Ann Arbor
Butler, Chas. W., Jr.....1650 Avondale, Ann Arbor
Butler, Gerald E. (A).....1120 Saunders Crescent, Ann Arbor
Campbell, Darrell A.....617 Stratford, Ann Arbor
Carr, Edward A., Jr.....Dept. of Pharm., U. of M., Ann Arbor
Carroll, Catherine.....615 Cressfield Lane, Ann Arbor
Carron, Dean P.....309 S. State St., Ann Arbor
Cary, Edward A.....1931 Lorraine Pl., Ann Arbor
Challener, W. A., III (A).....2829 Fernwood Ave., East Ann Arbor
Child, Chas. G., III.....University Hosp., Ann Arbor
Clark, Oswald V. (A).....1326 Arella Blvd., Ann Arbor
Clements, Glendon T. (A).....Elg Rd., Alma
Clyde, Ensign E.....1246 Sheridan Ave., Plymouth
Coller, Fredk. A. (L).....St. Joseph's Mercy Hosp., Ann Arbor
Conn, Jerome W.....1721 Shadford Rd., Ann Arbor

Conrad, James K. (A).....1523 E. 3150 South, Salt Lake City, Utah
Court, Jack L. (A).....1501 Arbor View Blvd., Ann Arbor
Crook, Clarence E.....2112 Wallingford, Ann Arbor
Cummings, Howard H. (L).....326 N. Ingalls St., Ann Arbor
Currier, Robert D.....University Hosp., Ann Arbor
Curtis, Arthur C.....1313 E. Ann St., Ann Arbor
Curtis, Edward G.....714 Henry, Apt. 4, Ann Arbor

Davenport, Fred M.....1038 Martin Pl., Ann Arbor
Davey, Winthrop N.....1313 E. Ann St., Ann Arbor
Deatrick, Richard W.....1323 Franklin Blvd., Ann Arbor
DeJong, Russell N.....1313 E. Ann St., Ann Arbor
Den Houter, W. D.....498 Ann St., Plymouth
DeTar, John S.....55 W. Main St., Milan
DeWeese, Marion S.....University Hosp., Ann Arbor
Diels, Gero (M)..279 Mockingbird Lane, Lexington, Ky.
Dillman, Richard S. (A).....529 5th St., Ann Arbor
Dingman, Reed O.....1407 Lincoln Ave., Ann Arbor
Dolfin, Wilbur E.....2210 Melrose, Ann Arbor
Domino, Edward F.....1325 Brooklyn, Ann Arbor
Donaldson, Samuel W.....326 N. Ingalls St., Ann Arbor
Doorn, Henry A.....1110 Miner St., Ann Arbor
Douthat, Rudenz T.....213 S. Ann Arbor St., Saline
Dryer, Clyde K.....3033 Sophia St., Wayne
Dukay, Alexander P.....Ypsilanti State Hosp., Ypsilanti

Eberhard, Theodore P.....326 N. Ingalls St., Ann Arbor
Edmunds, Wm. P.....21 S. Prospect, Ypsilanti
Eid, Charles H. (A).....1456 Univ. Terrace, Ann Arbor
Elliott, Lyle D.....26 S. Prospect, Ypsilanti
Engelke, Otto K.....County Bldg., Ann Arbor
English, David C.....1699 Broadway, Ann Arbor
Entwistle, F. R. (M)..2918 N. Summit, Milwaukee, Wis.
Evans, Tommy N.....1001 Belmont Rd., Ann Arbor

Fajans, Stefan S.....248 Devonshire, Ann Arbor
Falk, Elwin C.....14 N. Hamilton, Ypsilanti
Falls, Harold F.....University Hosp., Ann Arbor
Feller, Irving (A).....2565 Carmel St., Ann Arbor
Fellman, S. L.....1550 Ardmoor Dr., Ann Arbor
Feltner, Wm. R. (A)....2501 Pittsfield Blvd., Ann Arbor
Field, Richard C. (A).....3501 Oakwood, Ann Arbor
Finch, Stuart M.....Child Psychiatric Hosp., Ann Arbor
Fink, Geo. C.....411 N. Ingalls St., Ann Arbor
Fish, James B. (A).....2328 Yost Blvd., Ann Arbor
Fisher, Jos. V.....Chelsea
Fliegel, Martin B.....Hawthorn Center, Northville
Flotte, C. Thos.....1043 Olivia Ave., Ann Arbor
Forsythe, Warren E. (L)....2680 Van Ness, Eugene, Ore.
Fox, Winslow G.....715 N. University, Ann Arbor
Fralick, F. Bruce.....University Hosp., Ann Arbor
Francis, Thos., Jr.....Univ. Mich. School Public Health, Ann Arbor
Fransway, Robert L.....244 Mason Ave., Ann Arbor
French, Arthur B.....1113 W. Liberty, Ann Arbor
French, A. James.....1313 E. Ann St., Ann Arbor
Frohlich, Moses M.....1313 E. Ann St., Ann Arbor
Frost, Lyle W.....309 N. Washington St., Ypsilanti
Fry, Richard M. (A).....Univ. Hosp., Ann Arbor
Frye, Carl H.....301 N. Ingalls St., Ann Arbor
Furstenberg, A. C.....1313 E. Ann St., Ann Arbor

Ganzhorn, Edwin C.....309 S. Main St., Ann Arbor
Getting, Vlado A.....1200 Arlington Blvd., Ann Arbor
Gignac, Ralph M.....32320 Michigan, Wayne
Gillett, Robert L. (A).....3014 Jennings St., Sarasota, Fla.
Gilman, Geo. C. (A).....1531 Ardmore, Ann Arbor
Ging, Rosalie J.....Veterans Adm. Hosp., Ann Arbor
Goldsmith, Robert I.....1211 Prospect St., Ann Arbor
Gosling, J. R. G.....2333 Buckingham Rd., Ann Arbor
Gotz, Alexander.....709 Sunset Rd., Ann Arbor
Gould, Stuart M., Jr.....225 E. Liberty St., Ann Arbor
Grabb, William C. (A)....1310 Pomona Rd., Ann Arbor
Gracie, Wm. A., Jr.....Univ. Hosp., Ann Arbor
Graham, Bruce D.....2402 Vinewood Blvd., Ann Arbor
Graham, Iris J. (A).....Box A, Ypsilanti
Grawn, Frank A. (R).....604 Pearl St., Ypsilanti
Grillo, S. Phillip.....265 Main St., Belleville
Gross, H. Phil (A).....406 W. Cypress, Lampoc, Calif.
Grout, J. Gordon (A).....2376 Yost Blvd., Ann Arbor
Guthrie, Frank W., Jr. (A)..3412 Edgewood, Ann Arbor

Haas, Adolf (A).....Box A, Ypsilanti
Hagerman, Geo. W.....321 N. Ingalls St., Ann Arbor
Haight, Cameron.....Univ. Hosp., Ann Arbor
Hammond, Walter W., Jr.....905 W. Ann Arbor Trail, Plymouth
Handorf, Heinrich H.....Penniman Allen Theatre, Northville
Hankamp, Lamar J.....1412 E. Park Pl., Ann Arbor
Hannum, Marvin R.....54 W. Main, Milan
Hanson, Frederick N.....45341 Harmony Lane, Belleville
Harrell, E. R., Jr.....1313 E. Ann St., Ann Arbor
Harris, Bradley M.....27 S. Prospect, Ypsilanti
Harris, Scott T.....27 S. Prospect, Ypsilanti
Harrison, Saul I.....Child Psychiatric Hosp., Ann Arbor
Hartman, James T.....3426 Oakwood, Ann Arbor
Hartwell, S. W., Jr. (A).....919 Edgewood Ave., Ann Arbor
Henderson, John W.....Univ. Hosp., Ann Arbor
Hendrix, Robert C.....1139 Vesper Rd., Ann Arbor
Henry, L. Dell.....706 W. Huron St., Ann Arbor
Heyner, Conrad S. (A)....3424 Oakman Blvd., Detroit 4
Hicks, Richard B.....Box A, Ypsilanti State Hosp., Ypsilanti
Hildebrandt, H. Mark.....1130 Hill St., Ann Arbor
Hill, B. J.....1437 Jeffery St., Ypsilanti
Himler, Leonard E.....1225 Fairoaks Pkwy., Ann Arbor
Hinerman, Dorin L.....1313 E. Ann St., Ann Arbor
Hing, Ng Harry (A).....St. Joseph's Mercy Hosp., Ann Arbor
Hodges, Fred J.....1313 E. Ann St., Ann Arbor
Hodges, Robert E. (A).....501 Huron View, Ann Arbor
Holmes, Joyce M. (A).....711 Haven St., Ann Arbor
Holt, John F.....1313 E. Ann St., Ann Arbor
Holtz, Fred.....University of Mich., Ann Arbor
Hoobler, Sibley W.....2228 Belmont, Ann Arbor
House, Frederic B.....1240 Crosby Crescent, Ann Arbor
Howard, W. Leonard.....Maybury San., Northville
Howard, Stacy C.....Rte. 3, Hendersonville, N. C.
Hulett, R. M.....1444 Glastonbury Rd., Ann Arbor
Jacob, Jos. S.....202 E. Washington St., Ann Arbor
Jimenez, B. (R).....215A S. Main St., Ann Arbor
Johnson, F. Deborah (A).....Univ. Hosp., Ann Arbor
Johnson, Robert D.....3432 Woodlea Dr., Ann Arbor
Johnston, Franklin D.....1313 E. Ann St., Ann Arbor
Jones, Edna M.....Maybury San., Northville
Jones, Elizabeth.....2121 Highland Rd., Ann Arbor
Jones, John R.....St. Joseph's Mercy Hosp., Ann Arbor

Kabza, Theodore G.....2222 Parkwood, Ann Arbor
Kahn, Edgar A.....500 Burson Pl., Ann Arbor
Kambly, Arnold H., Jr.....201 S. Main St., Ann Arbor
Keese, Antonia J.....2029 Ferdon Rd., Ann Arbor
Kemp, W. R., Jr.....8124 Main St., Dexter
Kerlikowske, A. C.....1313 E. Ann St., Ann Arbor
Kern, Wheeler H.....P.O. Box 7, Garden City
Kimbrough, W. W. (A).....2004 Helen St., Ann Arbor
Kittleson, Arthur C. (A).....1717 Pontiac, Ann Arbor
Kivi, Louis P.....2015 Manchester Rd., Ann Arbor
Knoll, Leo A.....2002 Scottwood, Ann Arbor
Knox, C. Frank, Jr. (A).....1922 N. Apartments, Ann Arbor
Koepke, Geo. H.....1313 E. Ann St., Ann Arbor
Korst, Donald R.....Veterans Adm. Hosp., Ann Arbor
Kraft, R. O. (A).....337 Lake Park Lane, Ann Arbor
Krausse, Chas. F. (A).....502 Catherine St., Ann Arbor
Krigbaum, Edmund M.....2253 Medford Rd., Ann Arbor
Kroon, Edwin H. (A).....2723 Platt Rd., Ann Arbor
Kutcipal, R. A. (A).....Univ. Hosp., Ann Arbor

Lafler, C. J. (A).....435 Evergreen Dr., Ann Arbor
Lampe, Isadore.....1313 E. Ann St., Ann Arbor
Langer, L. O., Jr. (A).....2580 Elmwood, Ann Arbor
Lapides, Jack.....1313 E. Ann St., Ann Arbor
LaVielle, Carroll J.....1500 Kirtland Dr., Ann Arbor
Law, John L.....1706 Cambridge Rd., Ann Arbor
Lemmen, Lloyd J...90 B VA Center, Los Angeles 25, Cal.

Lindner, Arthur E. (A).....11th Evac. Hosp., APO 59, San Francisco, Cal.
Litton, Ward B. (A).....Univ. Hosp., Ann Arbor
Lockett, Harold J.....1615 Peach, Ann Arbor
Lovell, Robert G.....7320 Med. Science Bldg., Ann Arbor
Lowry, Claud M.....1707 Shadford Rd., Ann Arbor
Lowrey, Geo. H.....Univ. Hosp., Ann Arbor
Lubeck, Marvin J. (A).....Univ. Hosp., Ann Arbor
Magee, Kenneth R.....1313 E. Ann St., Ann Arbor
Magielski, John E.....2355 Londonberry Rd., Ann Arbor
Malcolm, Karl D.....311 N. Ingalls St., Ann Arbor
Maley, John E.....5441 Walsh Rd., Whitmore Lake
Marcus, Edwin L.....924 Duncan St., Ann Arbor
Marshall, Mark (L).....St. Joseph's Mercy Hosp., Ann Arbor
Martin, Donald W.....19 W. Michigan Ave., Ypsilanti
Mason, Joyce W.....1908 Scottwood, Ann Arbor
Mason, Stephen C., III....122 N. Thayer St., Ann Arbor
Mathews, Kenneth P.....1145 Aberdeen Dr., Ann Arbor
Matthews, W. Frank (A)....11960 Whitmore Lake Rd., Whitmore Lake
Mauzy, Merritt C.....2227 Medford Rd., Ann Arbor
Maxwell, James H.....1313 E. Ann St., Ann Arbor
McCabe, Brian F. (A).....304 Wilton, Ann Arbor
McCarthy, Jack D. (A)....1433 Golden Ave., Ann Arbor
McCubbrey, David R. (A).....1430 Golden Ave., Ann Arbor
McEachern, Thos. H.....1130 Hill St., Ann Arbor
McGehee, John N. (A).....111 S. Catherine St., Mobile 19, Alabama
McLean, James A.....1313 E. Ann St., Ann Arbor
McWilliams, John R.....201 S. Main St., Ann Arbor
Meyers, Muriel C.....Simpson Mem. Inst., Ann Arbor
Miedler, Leo J. (A).....Univ. Hosp., Ann Arbor
Milford, A. F., Jr.....111 S. Prospect, Ypsilanti
Miller, Harold A.....205 S. Davenport St., Saline
Miller, Ira I.....201 S. Main St., Ann Arbor
Miller, Norman F.....1313 E. Ann St., Ann Arbor
Miller, Seward E.....1630 Univ. Hosp., Ann Arbor
Moore, Kenneth B.....Box A, Ypsilanti
Moore, Robert A.....730 Northside Ave., Ann Arbor
Morley, Geo. W.....Univ. Hosp., Ann Arbor
Morris, Joe D.....1313 E. Ann St., Ann Arbor
Mumford, Earl M. (A).....3423 Edgewood, Ann Arbor
Murphy, Thomas C. (A).....2551 Fernwood, Ann Arbor
Nelson, Roger B.....1313 E. Ann St., Ann Arbor
Nesbit, Reed M.....815 Berkshire, Ann Arbor
Newton, Chas. W., Jr.....115 E. Liberty St., Ann Arbor
Obenauf, Walter H.....Box A, Pontiac
O'Connor, Gerald.....1230 Creal Crescent, Ann Arbor
Oliphant, Lizzie W. (L).....790 Barton Shore Dr., Ann Arbor
Ostrander, L. D. Jr.....2321 Pittsfield Blvd., Ann Arbor
O'Sullivan, John (A).....3436 Edgewood, Ann Arbor
Page, Merle C.....2879 Fernwood, Ann Arbor
Pahucki, Gena R.....317 S. State St., Ann Arbor
Palmer, Algernon A.....110 E. Middle St., Chelsea
Papo, Michael.....19377 Sibley Rd., Chelsea
Parker, Alden R. (M).....1006 Kenyon Dr., Alexandria, Va.
Parnall, C. G. (L).....519 Onondaga St., Ann Arbor
Patterson, Roy (A).....907 Hutchins, Ann Arbor
Payne, Beverly C.....527 E. Liberty St., Ann Arbor
Payne, Charles E.....2403 Yorkshire, Ann Arbor
Person, Douglas A. (A).....Rt. 2, Box 91. Oak Harbor, Wash.
Peterson, Thomas R.....2015 Manchester Rd., Ann Arbor
Petrohelos, Manousos A.....27 S. Prospect St., Ypsilanti
Place, Edwin H.....Detroit Trans., GMC, Ypsilanti
Pollack, Hans L. (M).....2315 Fernwood, Ann Arbor
Pollard, H. Marvin.....2012 Vinewood Blvd., Ann Arbor
Poppy, James H. (A).....1018 Arbor View Blvd., Ann Arbor
Potter, Marcia L.....318 W. Cross St., Ypsilanti
Prout, Gordon J.....113 N. Ann Arbor St., Saline
Purfield, Wm. P.....Manchester
Rae, James W., Jr.....1313 E. Ann St., Ann Arbor
Ransom, Henry K.....1402 Washington Hts., Ann Arbor
Raphael, Theophile.....33 E. Ridgeway St., Ann Arbor
Rapp, Robert.....1460 Cedar Bend Dr., Ann Arbor
Ratliff, Rigdon K.....326 N. Ingalls St., Ann Arbor
Regan, Wm. J., Jr.....326 N. Ingalls, Ann Arbor
Rehner, Robert C.....1506 Golden, Ann Arbor
Reichert, Rudolph E., Jr.....1046 Baldwin, Ann Arbor
Reinhart, Melvin J. (A).....4386 Copeland St., Apt. 5, San Diego 5, Calif.
Rekshan, Wm. R.....28 Prospect St., Ypsilanti
Reus, Wm. F., Jr. (M).....Larson AFB, Washington
Ritter, Frank N. (A).....930 Duncan St., Ann Arbor
Robins, Hugh B.....715 W. Madison Ave., Ann Arbor
Robinson, Orlo J., Jr.....501 Dunlap, Northville
Robinson, Wm. D.....1313 E. Ann St., Ann Arbor
Rosenzweig, Norman.....Univ. Hosp., Ann Arbor
Ross, C. Howard.....715 N. University Ave., Ann Arbor
Roth, F. Dale (A).....3610 Four Mile Rd. N.W., Grand Rapids
Saer, John K. (A).....Univ. Hosp., Ann Arbor
Saunders, Allen.....2361 E. Stadium Blvd., Ann Arbor
Sayre, Geo. S.....1208 Whittier, Ypsilanti
Schemm, George W. (A).....Univ. Hosp., Ann Arbor
Schlacht, Geo. F.....Romulus
Schneider, Richard C.....1313 E. Ann St., Dept. N.S., Ann Arbor
Schoch, Henry K.....Vets. Admin. Hosp., Ann Arbor
Schultz, E. C., Jr.....20172 Sheffield, Detroit 21
Schumacher, Wm. E.....201 S. Main St., Ann Arbor
Scovill, Henry A.....1313 W. Cross St., Ypsilanti
Seevers, Maurice H.....Univ. of Mich. Med. School,
Segat, Maria Z.....455 Huntington Dr., Ann Arbor
Selving, Benjamin T.....Univ. Hosp., Ann Arbor
Selzer, Melvin L.....1856 Stadium Place, Ann Arbor
Shaw, Charles R.....Hawthorn Center, Northville
Sheehan, John C.....1250 Creal Crescent, Ann Arbor
Sheldon, John M.....2121 Toumy Rd., Ann Arbor
Shoecraft, Harriet L.....1018 Ferdon Rd., Ann Arbor
Sigler, Louis E., Jr.....1443 Covington Dr., Ann Arbor
Silverstein, B. S. (A).....University Hospital, Ann Arbor
Sink, Emory W. (L)..725 N. University Ave., Ann Arbor
Sirola, Olga.....1710 Collegewood, Ypsilanti
Slee, Vergil N.....201 S. Main St., Ann Arbor
Small, Iver F. (A).....Box A, Ypsilanti
Smillie, John W.....2615 Overridge Dr., Ann Arbor
Smith, Edwin M. (A).....1720 Chandler, Ann Arbor
Smith, Eleanor.....521-39 E. Liberty St., Ann Arbor
Smith, Russell F.....9569 Main St., Whitmore Lake
Sparling, Irene L. M.....251 E. Main St., Northville
Spears, Clarence W.....302 W. Cross, Ypsilanti
Stevens, David B. (A).....2562 Fernwood, Ann Arbor
Straffon, Ralph A. (A).....1216 Birk Ave., Ann Arbor
Streeten, B. A. W.....1411 Henry, Ann Arbor
Struthers, James N. P.....Box A, State Hosp., Ypsilanti
Sturgis, Cyrus C.....Simpson Mem. Inst., Ann Arbor
Swank, Helen S.....404 Wildwood, Ann Arbor
Sweet, Robert B.....1313 E. Ann St., Ann Arbor
Taylor, Wm. B.....1313 E. Ann St., Ann Arbor
Teed, R. Wallace.....2300 Melrose, Ann Arbor
Thieme, E. Thurston.....St. Joseph Mercy Hosp., Ann Arbor
Thompson, A. S.....Beyer Memorial Hosp., Ypsilanti
Thompson, George R. (M).....64 Newcomb St., Arlington 74, Mass.
Thompson, Ian M.....Univ. Hosp., Ann Arbor
Tourtellotte, W. W. (A).....Univ. Hosp., Ann Arbor
Towsley, Harry A.....1000 Berkshire, Ann Arbor
Tupper, Chas. J.....2 Medford Court, Ann Arbor
Van Der Veer, J. R. (A).....Univ. Med. Center, Ann Arbor
Van Duzen, Verne L.....Box A, Ypsilanti
Van Reesema, F. S. (A).....508 Second St., Ann Arbor
Vaughen, J. L. (A).....Univ. Hosp., Ann Arbor
Venrose, Robert J.....143 W. Main St., Milan
Votaw, Charles L.....629 Revena Place, Ann Arbor
Vreede, Pieter (A)....St. Joseph Mercy Hosp., Ann Arbor
Waggoner, R. W.....3333 Geddes Rd., Ann Arbor
Waid, Margaret E.....1726 N.W. 10 Terrace, Gainesville, Fla.

Waldron, Alexander M.....309 N. Ingalls, Ann Arbor
Wallner, Julius M.....1313 E. Ann St., Ann Arbor
Warren, Leon H.....Box 118, RP Annex, Detroit 32
Washburne, Charles L. (L)....St. Joseph's Mercy Hosp., Ann Arbor
Watson, Ernest H.....280 Barton Dr. N., Ann Arbor
Weisman, Raoul L.....32 N. Washington, Ypsilanti
Weller, John M.....1621 South Blvd., Ann Arbor
Westcott, Geo. W.....1515 S. Congress St., Ypsilanti
Westerberg, Martha R.....1313 E. Ann St., Ann Arbor
Westman, Jack C. (A)..2727 Cranbrook Rd., Ann Arbor
Westover, Chas. J.....982 W. Ann Arbor Trail, Plymouth
Wetterstroem, Robert G.....46376 W. 7 Mile Rd., Northville
Whale, Edmund H.....207 Fletcher Ave., Ann Arbor
Whitehouse, W. M.....1313 E. Ann St., Ann Arbor
Wicht, Paul J.....1385 W. Michigan, Ypsilanti
Wile, Udo J. (L).....201 S. Main St., Ann Arbor
Williams, Howard R.....1950 Manchester Rd., Ann Arbor
Williamson, Fredk. B.....319 W. Michigan Ave., Ypsilanti
Willis, Park W., III.....Univ. Hosp., Ann Arbor
Wilson, J. Leroy.....1313 E. Ann St., Ann Arbor
Winkelman, E. I. (A)..Veterans Adm. Hosp., Ann Arbor
Winkler, James M. (A)....2015 Crestland Dr., Ann Arbor
Wisdom, Inez R. (L).....705 N. Univ. Ave., Ann Arbor
Wolfman, Earl F., Jr.....827 Bruce St.. Ann Arbor
Woo, Theresa T.....708 W. Huron St., Apt. 5, Ann Arbor
Woods, James J.....19 N. Washington St., Ypsilanti
Worth, Melissa H. C.....RFD 7, 3211 Packard Rd., Ann Arbor
Wright, Harold L.....16226 Homer Rd., Plymouth
Wright, Walter J. (L).....417 W. Cross St., Ypsilanti
Wyman, John S.....2224 Highland Rd., Ann Arbor
Yoder, O. R.....Ypsilanti State Hosp., Ypsilanti
Zerbi, Victor M.....27 S. Prospect, Ypsilanti

WAYNE COUNTY MEDICAL SOCIETY

Abbott, James A.....310 E. Jefferson, Detroit 31
Aben, Gerald J.....5057 Woodward Ave., Detroit 2
Abraham, Jos. P.....2799 W. Grand Blvd., Detroit 2
Abruzzo, Anthony M.....Wayne County Training School, Northville
Adamian, Gerald D.....10 Peterboro St., Detroit 1
Adams, James R.....14741 Michigan Ave., Dearborn
Adams, Vincent B.....15124 Kercheval, Grosse Pte. 3
Adelson, Seymour S.....19207 Schaefer, Detroit 35
Adelson, Sidney L.....16221 Schoolcraft, Detroit 27
Adler, Sidney.....3011 W. Grand Blvd., Detroit 2
Agnew, Geo. H.....3011 W. Grand Blvd., Detroit 2
Agnone, Eugene J.....1420 St. Antoine St., Detroit 26
Agree, A. Alan.....2701 Holbrook Ave. Ham., Detroit 12
Aiuto, Jas. J.....660 Cadieux Rd. G.P., Detroit 30
Akroyd, Cecil.....16551 W. Warren, Detroit 8
Alban, Emil J., Jr.....7940 Allen Rd., Allen Park
Albrecht, Albert J.....11624 Wisconsin Ave., Detroit 4
Alexander, Allen.....3406 Ewald Circle, Detroit 38
Alexander, Eugene J.....24140 Wilson, Dearborn
Alexander, L. C.....1204 Kales Bldg., Detroit 26
Alford E. S.....105 Main St., Belleville
Allen, John V.....1336 Southfield Rd., Lincoln Park
Alles, Russell W.....17555 James Couzens Hwy., Detroit 35
Allison, Herbert C.....383 Fisher Rd., Gp. 3, Detroit
Alpern, E. Bryce.....2840 W. 7 Mile Rd., Detroit 21
Alpiner, Sam.....2850 E. Seven Mile Rd., Detroit 34
Altman, Raphael.....5057 Woodward Ave., Detroit
Altshuler, Ira M.....2211 Woodward Ave., Detroit 1
Alvarez, Herman, Jr.....Henry Ford Hosp., Detroit 2
Amos, Thos. G. (L).....2842 W. Grand Blvd., Detroit 2
Anderson, Beverly L.....9141 E. Jefferson, Detroit 14
Anderson, Chas. P.....16733 Plainview Rd., Detroit 19
Anderson, James O.....7715 Middlepointe Ave., Dearborn
Anderson, Walter L.....1553 Woodward Ave., Detroit 26
Andries, Geo. H.....3001 W. Grand Blvd., Detroit 2
Andries, Raymond C. (L).....964 Lakepointe St., Grosse Pointe 3
Angel, John J.....34549 Main St., Wayne
Annessa, Domenico M.....3536 Burns Ave., Detroit 14
Anslow, Robt. E.....10 Peterboro St., Detroit 1
Appelman, Howard B...1553 Woodward Ave., Detroit 26
Archambault, H. A. (A).....5057 Woodward Ave., Detroit 2
Archambault, Rene F.....35550 Michigan Ave., Wayne
Arehart, Burke W.....11540 Morang Dr., Detroit 24
Arminski, Thos. C.....3011 W. Grand Blvd., Detroit 2
Armstrong, Arthur G.....3001 W. Grand Blvd., Detroit 2
Armstrong, Mac J.....15125 Grand River Ave., Detroit 27
Arnkoff, Morris.....966 Fisher Bldg., Detroit 2
Arnold, Effie E. (L).....16520 Oakfield, Detroit 35
Arnold, Wm. J., Jr.....8203 12th St., Detroit 6
Arrington, Robyn J.....7811 Oakland Ave., Detroit 11
Ascher, Meyer S.....5057 Woodward Ave., Detroit 2
Ashe, Stilson R. (L)....8031 W. Vernor Hwy., Detroit 9
Ashley, Lowell B.....18050 Fairway Dr., Detroit 21
Asselin, Dean R.....1553 Woodward Ave., Detroit 26
Asselin, Regis F.....20480 Eastwood Dr. H.W., Detroit 36
Atler, Lawrence R.....681 W. Forest Ave., Detroit 1
Auble, Max E.....1063 Devonshire, Detroit 30
August, Harry E.....5057 Woodward Ave., Detroit 2
Austin, Shirley.....5224 St. Antoine St., Detroit 2
Ausum, John D.....3001 Millen Rd., Dearborn
Avrin, Ira.....10821 Puritan, Detroit 38
Axelrod, Arnold R...15001 W. Eight Mile Rd., Detroit 35
Axelrod, Mildred A.....13725 8 Mile Rd., Detroit 35
Axelrod, Robt. G.....18518 Appoline, Detroit 35
Babcock, Lloyd K.....16420 Schoolcraft Ave., Detroit 27
Babcock, Myra E.....7 Poplar Park, Pleasant Ridge
Babcock, Warren W.....18254 Oak Dr., Detroit 21
Bach, Walter F.....5419 Livernois Ave., Detroit 10
Bacher, Burton J.....1015 Kales Bldg., Detroit 26
Bachman, Morris E.....3001 W. Grand Blvd., Detroit 2
Bacon, Vinton A.....18400 Livernois, Detroit 21
Bader, Benj. H.....2654 W. Grand Blvd., Detroit 2
Baeff, Michael A. (R)....15435 Stahelin Ave., Detroit 23
Baer, Geo. J.....1553 Woodward Ave., Detroit 26
Bagley, Harry E.....7541 Oakman Blvd., Dearborn
Bahra, Robt. J.....22821 Walsingham, Farmington
Bailey, Donald A. (R)....3300 Woodstock Dr., Detroit 21
Bailey, Louis J.....Northland Center, Detroit
Baima, Margaret A.....5057 Woodward Ave., Detroit 2
Baker, Clarence (L).....19182 Patton Ave., Detroit 19
Bakst, Joseph A.....10 West Warren, Detroit 1
Balaga, Frank T.....9701 Joseph Campau Ave., Hamtramck 12
Balberor, Harry.....275 W. Grand Blvd., Detroit 16
Balcerski, Matthew A.....10 Peterboro St., Detroit 1
Ballard, Donald R.....22231 W. Outer Dr., Dearborn
Balow, Ross M.....18700 Meyers Rd., Detroit
Balser, Chas. W.....13931 Gratiot, Detroit 5
Barak, Lewis R.....7448 W. Seven Mile Rd., Detroit 21
Baran, Alphonse W.....15841 W. Warren St., Detroit 28
Barbaglia, Louis C.....16378 Harper, Detroit 24
Barber, Radivoj R.....504 S. Main St., Plymouth
Bardenstein, M. B...16650 Jas. Couzens Hwy., Detroit 21
Barefield, Alwin S.....8629 W. Eight Mile Rd., Detroit 21
Barenholtz, Benj.....1138 Maccabees Bldg., Detroit 2
Barker, David H.....7220 Gratiot Ave., Detroit 13
Barland, Oscar.....8703 Oakland, Detroit 11
Barnes, Van D.....11040 Ingram, Livonia
Barnett, Louis L.....10 Witherell St., Detroit 26
Barnett, Morton.....1150 Griswold St., Detroit 26
Barnett, Saul E.....744 Lothrop, Detroit 2
Barone, C. Gerald.....15231 W. 7 Mile Rd., Detroit 35
Barrett, C. D., Jr.....334 Bates, Detroit 26
Barrett, Raymond J.....18280 Fairfield, Detroit 21
Barrett, Wyman D.....1553 Woodward Ave., Detroit 26
Barron, James.....2535 Amberly Rd., Birmingham
Barron, Wm. H.....14938 Livernois, Detroit 21
Barsky, David.....100 Oak St., Wyandotte

Barton, Jos. R.....7503 W. Warren Ave., Detroit 10
Batchelor, Melvin T.....18060 Conant, Detroit 34
Bates, Gaylord S.....861 Monroe Blvd., Dearborn
Battle, John M.....6904 Charlesworth, Garden City
Bauer, A. Robt.....19268 Grand River Ave., Detroit 23
Bauer, Benedict J.....16451 Schoolcraft, Detroit 27
Bauer, Lester E.....4 Woodside Pk., Pleasant Ridge
Baugh, Richard H.....24216 Michigan Ave., Dearborn
Baumer, Moe.....10 Peterboro, Detroit 1
Baumgarten, Elden C...8045 E. Jefferson Ave., Detroit 14
Baumgarten, Thos. W...8045 E. Jefferson Ave., Detroit 14
Bayles, John G. (A).....3416 Michigan Ave., Detroit 16
Beach, Watson.....20825 Mack, G.P.W., Detroit 36
Beam, A. Duane.....20160 Mack Ave., Grosse Pointe Woods
Beamer, Geo. D.....14853 Michigan Ave., Dearborn
Beard, James E.....906 N. Highland, Dearborn
Beck, Stanley M., Jr.....13118 Fort St., Wyandotte
Becker, Abraham.....10 Witherell St., Detroit 26
Becker, Jos. W.....1553 Woodward Ave., Detroit 26
Beckett, Peter G. S.....951 E. Lafayette St., Detroit 7
Beckett, Victoria L.....1420 Anita, Grosse Pointe Woods
Becklein, Clarence L...14351 E. Warren Ave., Detroit 15
Bedell, Archie A.....15545 Mack Ave., Detroit 24
Bedwell, Wm. L.....1249 Washington Blvd., Detroit 26
Beebe, Willard E.....13365 Michigan Ave., Dearborn
Beeuwkes, L. E.....13014 Mackenzie Ave., Detroit 27
Behan, Robt. C.....500 Griswold St., Detroit 26
Beigler, Sydney K.....1553 Woodward Ave., Detroit 26
Beitman, Max R.....76 W. Adams, Detroit 26
Belanger, W. Geo.....1041 Harvard G.P., Detroit 30
Belden, Darwin F.....13339 Woodrow Wilson, Detroit 38
Belisle, John A.....Wayne Co. Hosp., Eloise
Bell, J. Kenner.....660 Woodward Ave., Detroit 26
Bende, Sandor F.....15863 Garfield, Allen Park
Beninson, Joseph.....Henry Ford Hospital, Detroit 2
Bennett, Germany E.....5144 Hastings St., Detroit 11
Bennett, Harry B.....5057 Woodward Ave., Detroit 2
Bennett, H. Stanley.....29767 E. River Rd., Grosse Ile
Bennett, Sanford A.....15301 W. Nine Mile Rd., Oak Park 37
Bennett, Zina B.....10319 Lanark, Detroit 24
Bennish, E. Leo.....21415 W. 8 Mile Rd., Detroit 19
Benson, Clifford D.....1553 Woodward Ave., Detroit 26
Benson, Davis A.....3706 Sturtevant Ave., Detroit 6
Benson, Paul J.....2355 Fort St., Lincoln Park
Benson, Virginia M.....16238 Snowden Ave., Detroit 35
Berge, Clarence A.....878 Lakewood, Detroit 15
Berger, Edwin L.....7301 Schaefer Rd., Dearborn
Bergman, Murray S.....4400 Livernois Ave., Detroit 10
Bergman, T. I.....7330 W. Seven Mile Rd., Detroit 21
Berk, J. Edward.....6767 W. Outer Dr., Detroit 35
Berke, Sydney S.....3333 E. Jefferson, Detroit 7
Berkey, William E. (R)....915 Andres, Coral Gables, Fla.
Berlien, Ivan C.....2906 E. Jefferson Ave., Detroit 7
Berlin, Allen B.....19467 Livernois, Detroit 21
Berman, Lawrence.....1401 Rivard St., Detroit 7
Berman, Robt. H.....2111 Woodward, Detroit 1
Berman, Sidney (A).....20423 Cheyenne, Detroit 35
Berman, Sidney L.....60 W. Hancock, Detroit
Bernard, Walter G.....910 Chalmer, Detroit 15
Bernbaum, Bernard.....17320 Livernois, Detroit 21
Bernstein, Samuel S.....18200 Wyoming, Detroit 21
Berridge, Wm. L., Jr.....Chevrolet Motors, Livonia
Berry, Jos. E.....19242 W. 7 Mile Rd., Detroit 19
Berzins, Erna.....20211 Greenfield, Detroit
Besancon, John H.....12621 Northlawn Ave., Detroit 38
Best, Thos. H. E. (L)..9221 E. Jefferson Ave., Detroit 14
Bethea, Hardee.....18150 Mack, Detroit
Beyer, Hans A.....Henry Ford Hospital, Detroit 2
Bialik, Michael H.....14853 Michigan Ave., Dearborn
Bicknell, Edgar A.....13641 Wyoming Ave., Detroit 38
Bicknell, Frank B.....1553 Woodward Ave., Detroit 26
Bielawski, John G.....8124 E. Morrow Circle, Detroit 4
Bigman, Oscar.....1151 Taylor Ave., Detroit 2
Bihl, John H.....Northville St. Hosp., Northville
Billingslea, Thos. H.....2175 Willis Ave. E., Detroit 7
Biluk, Frank J.....15074 Houston Whittier, Detroit 5
Birch, John R.....5057 Woodward Ave., Detroit 2
Birkam, Fred F.....7301 Schaefer Rd., Dearborn
Birkelo, Carl C. (R)....1630 Chestnut, Winter Park, Fla.
Birkelo, Carl H.....16859 Rosemont, Detroit
Birkhill, F. Ross.....31 Shady Hollow Dr., Dearborn
Birmingham, John R.....14216 W. McNichols Rd., Detroit 35
Birndorf, Leonard.....18317 John R. St., Detroit
Bittker, Isadore I.....3321 Rochester Rd., Royal Oak
Bittrich, Norbert M.....2500 W. Grand Blvd., Detroit 8
Black, Perry S.....19431 Van Dyke Ave., Detroit 34
Blain, Alexander, III....2201 Jefferson Ave. E., Detroit 7
Blain, Donald G.....2201 E. Jefferson, Detroit 7
Blain, James H., Jr...119 Kercheval Rd. G.P., Detroit 36
Blaine, Max.....5057 Woodward Ave., Detroit 2
Blair, Wm. F.....81 E. Kirby St., Detroit 2
Blanchard, Russell S.....261 Brady, Detroit
Bleier, Alfred.....13015 E. Warren Ave., Detroit 15
Bleier, Jos.....7504 Dexter Blvd., Detroit 6
Bloch, Abraham.....2935 E. Milwaukee Ave., Detroit 11
Block, Duane L.....3001 Miller Rd., Dearborn
Block, Melvin A.....2799 W. Grand Blvd., Detroit 2
Blodgett, James B.....76 W. Adams St., Detroit 26
Blodgett, Wm. E. (L).....76 W. Adams Ave., Detroit 26
Blodgett, Wm. H.....74 W. Adams Ave., Detroit 26
Bloom, Albert.....6484 Chene St., Detroit 11
Bloom, Arthur R.....5057 Woodward Ave., Detroit 2
Bloor, Robt. J.....Henry Ford Hosp., Detroit 2
Blumenthal, Franz L.....3011 W. Grand Blvd., Detroit 2
Blumer, Abraham.....25321 Five Mile Rd., Detroit 39
Boccaccio, John L.....11532 Morang, Detroit
Boccia, James J.....15761 E. Warren, Detroit 24
Boddie, Arthur W.....2737 Chene St., Detroit 7
Bogucki, Chester J...11455 E. McNichols Rd., Detroit 34
Bogue, Robt. E.....15800 W. McNichols Rd., Detroit 35
Bogusz, Ladislaus (R).....29215 Maranya Rd., Homestead, Fla.
Bohn, Z. Stephen.....10 Peterboro St., Detroit 1
Bohne, A. Waite.....2799 W. Grand Blvd., Detroit 2
Boland, John R. (R).....Box 50, Grand Marais
Bolstad, Donald S.....2799 W. Grand Blvd., Detroit 2
Bolter, Sidney.....18916 Woodward, Detroit 3
Bolton, Russell P., Jr...19566 Grand River Ave., Detroit 4
Bookstein, Abraham M.....1475 Colton Ave., Detroit 3
Boone, Geo. F.....22101 Moross Rd., Detroit 36
Borchak, Robert G. (A).....24584 Mabray, East Detroit
Borin, Maurice C.....18115 Fairfield St., Detroit
Bornstein, Sidney.....2033 Puritan, Detroit 3
Bott, Edmund T.....1629 Ford, Wyandotte
Botvinick, Isadore.....13701 W. 7 Mile Rd., Detroit 35
Boutrous, Thos. A.....15801 W. McNichols, Detroit 35
Bovill, Edwin G.....17555 Couzens Hwy., Detroit 35
Bower, Donald W.....719 Liberty, Lincoln Park
Bower, Franklin T.....Ford Motor Co., Detroit 32
Bowers, Leo J.....11200 E. McNichols Rd., Detroit 34
Bownes, Eugene A.....18520 Grand River, Detroit 23
Boyajian, Albert.....27459 Five Mile Rd., Livonia
Boyd, John H.....2615 W. Jefferson, Trenton
Boyle, Albert J.....Wayne St. University, Detroit 2
Boyle, Robert E.....Fisher Body Div GMC, Livonia
Bracken, Andrew H.....13102 W. Warren Ave., Dearborn
Bradfield, Horace F.....3008 E. Grand Blvd., Detroit 2
Bradley, Geo. T.....1553 Woodward Ave., Detroit 26
Brady, Herbert A.....10593 W. Jefferson R.R., Detroit 18
Braley, Wm. N. (L).....12897 Woodward, Detroit 3
Bramigk, Fritz W. (L).....10 Peterboro St., Detroit 1
Brand, Benj.....4500 Wabash Ave., Detroit 8
Braun, Lionel.....18644 Muirland Ave., Detroit 21
Braverman, Morris M.....5057 Woodward Ave., Detroit 2
Brekke, Viola G.....369 Glendale St., Highland Park 3
Bremer, John P.....17818 E. Warren, Detroit 24
Bremer, Wm. M.....15641 E. Warren, Detroit 24
Breneman, Gerald M.....16926 13 Mile Rd., Birmingham
Brennan, Michael J.....1176 Grayton G.P. Pk., Detroit 30
Brent, Morris S.....1330 Strathcona Dr., Detroit 3
Brey, Norman W.....5057 Woodward Ave., Detroit 2
Briegel, Walter A. (R).....1012 Henrietta, Birmingham
Briggs, Wm. J.....5057 Woodward Ave., Detroit 2

Brines, Osborne A.....1415 Parker Ave., Detroit 14
Bringard, Elmer L.....18110 Fairfield Ave., Detroit 21
Briski, Jacob E. (A)....21231 Sunnydale, St. Clair Shores
Brisson, Jos. C.....9191 Whittier St., Detroit 24
Bristol, Wm. R.....6142 Bishop, Detroit 24
Broadman, Sylvan A.....25705 Middlebelt, Farmington
Brock, Donald R. (A).....Mt. Carmel Mercy Hosp., Detroit 35
Broderson, Harvey S. (R).....10720 W. Jefferson, River Rouge 18
Bromme, Wm.....10 Peterboro St., Detroit 1
Bronson, Wm. W.....22128 Grand River, Detroit 19
Brooks, Chas W., II.....2033 E. Davison St., Detroit 12
Brooks, Eugene M.....1103 Kales Bldg., Detroit 26
Brooks, Nathan.....76 W. Adams, Detroit 26
Brosius, Chas. O.....15800 Six Mile Road, Detroit 35
Brosius, Wm. L.....16150 Sorrento, Detroit 35
Brough, Glen A.....1553 Woodward Ave., Detroit 26
Brown, Andrew G.....18230 Grand River Ave., Detroit 23
Brown, Audrey O.....5057 Woodward Ave., Detroit 2
Brown, Carlton F.....16552 Westmoreland Rd., Detroit 19
Brown, Chas. H.....2387 Fort St., Wyandotte
Brown, Eli M.....13123 LaSalle, Huntington Woods
Brown, Frances.....1940 Lincolnshire, Detroit 3
Brown, Gordon T.....13000 Hayes Ave., Detroit 5
Brown, Henry S.....18101 Jas. Couzens Hwy., Detroit 35
Brown, John R.....5057 Woodward Ave., Detroit 2
Brown, Robt. A.....3529 W. Jefferson, Detroit 29
Brown, Samuel M.....18268 Sorrento Ave., Detroit 35
Brown, Saul.....6767 W. Outer Dr., Detroit 35
Brown, Stanley H.....8544 W. McNichols Rd., Detroit 21
Brown, Thos. A.....5430 W. Warren Ave., Detroit 10
Brownell, H. H.....2929 Fort St., Wyandotte
Brownell, Paul G.....18916 Woodward Ave., Detroit 3
Bruder, Robt. C.....21721 Hickery Wood Dr., Dearborn Township
Bruehl, Richard A. (A).....306 Crestwood Dr., Port Charlotte
Punta Gorda, Florida
Bruer, Edgar S.....12170 Fort St., Wyandotte
Bruer, Edwin L.....12170 Fort St., Wyandotte
Brundage, Robt. D.....1914 Edgewood, Dearborn
Brunke, Bruno B. (L).....7765 Mack Ave., Detroit 14
Brush, Brock E.....2799 W. Grand Blvd., Detroit 2
Bruton, Martin F.....341 Massachusetts, Detroit 3
Bryan, Donald I.....13700 Woodward Ave., Highland Park 3
Bryan, John B.....2799 W. Grand Blvd., Detroit 2
Bryce, John D.....5400 Trumbull Ave., Detroit 8
Budd, Richard D.....20131 James Couzens, Detroit
Budson, Daniel.....17195 Muirland, Detroit 21
Buell, John H.....188 Provencal Rd. G.P.F., Detroit 36
Buerki, Robin C...201 Lake Shore Rd. G.P.F., Detroit 36
Buller, Harry L. (A).....4120 Fenkell Ave., Detroit 38
Burge, Robert H.....23843 Joy Rd., Garden City
Burke, Ralph M.....580 University Pl., Grosse Pointe 3
Burnham, David C.....13700 Woodward Ave., Highland Park
Burns, Robert E.....Henry Ford Hospital, Detroit 2
Burns, Robt. T.....11110 Morang Rd., Detroit 24
Burnside, Howard B.....20403 Stratford, Detroit 21
Burnstine, Julius Y.....45 Owen Ave., Detroit 2
Burnstine, Perry P.....2329 W. Grand Blvd., Detroit 8
Burr, Geo. C.....2016 W. Boston Blvd., Detroit 6
Burr, H. Leonard.....168 Fisher Rd., G.P., Detroit 30
Burroughs, Roswell G.....31624 Auburn Dr., Birmingham
Burrows, Howard A.....10423 W. Warren Ave., Dearborn
Burstein, Harry S.....2950 W. Grand Blvd., Detroit 2
Burstein, I. Marvin.....2950 W. Grand Blvd., Detroit 2
Burstein, Morris M.....2950 W. Grand Blvd., Detroit 2
Burton, DeWitt T.....54 Arden Park, Detroit 2
Burton, Irving F.....14624 E. 7 Mile Rd., Detroit 5
Bush, Glendon J.....18901 W. McNichols, Detroit 19
Butler, Harry J. (L)....33 Waverly Ave., Highland Park
Butler, Harry R.....20410 Ecorse Rd., Dearborn
Butler, J. Payne.....3403 W. Warren St., Detroit 8
Butler, John D.....2173 W. Grand Blvd., Detroit 8
Butler, Lawrence H.....14521 East 7 Mile Rd., Detroit 5
Butler, Richard G.....2021 Monroe, Dearborn
Butler, Volney, N.....28 W. Adams Ave., Detroit 26
Buttrum, Edward J.....14755 Fenkell St., Detroit 27
Byers, Dudley W.....8934 Oakland, Detroit 11
Cadieux, Henry W. (L)....103 E. Grand Blvd., Detroit 7
Cahalan, Jos. L.....1553 Woodward Ave., Detroit 26
Cain, Waldo L.....8033 Twelfth St., Detroit 6
Caldwell, John R.....2799 W. Grand Blvd., Detroit 2
Calkins, H. Neill (A).....15302 Gilchrist, Detroit 27
Callaghan, Thos. T.....10 Peterboro St., Detroit 1
Cameron, Duncan A.....2021 Monroe, Dearborn
Campbell, Chas. A.....260 Waverly Ave., Apt. 6, Menlo Park, Calif.
Campbell, Duncan (L).....9203 Grand River Ave., Detroit 4
Campbell, Duncan A. (L).....1553 Woodward Ave., Detroit 26
Campbell, Everett W.....7901 W. Jefferson, Detroit 17
Campbell, Malcolm D.....10 Peterboro St., Detroit 1
Campbell, Mary B. (L).....10454 Kingston, Huntington Woods
Campbell, Robt. E.....8445 E. Jefferson Ave., Detroit 14
Campbell, Ruth B.....1536 David Whitney, Detroit 26
Campbell, Thelma W.....22375 Garrison Ave., Dearborn
Cameron, Arthur H.....2853 Biddle, Wyandotte
Candler, Clarence L.....20040 Mack Ave., Detroit 36
Canter, Allie L.....13700 Woodward, Highland Park 3
Canter, Gayle E.....26 Waverly, Detroit 3
Cantor, Herbert C.....5057 Woodward Ave., Detroit 2
Cantor, Meyer O...4850 Charing Cross Rd., Birmingham
Cantow, Lawrence A.....3011 W. Grand Blvd., Detroit 2
Capano, Oreste A.....16901 James Couzens, Detroit 35
Capellari, Elmer E.....Box 3059, Detroit
Caputo, Jos. M.....22575 Nona, Dearborn
Caputo, Nancy T.....18145 Mack Ave., Detroit 24
Capuzzi, Eugene T.....24644 Gleneyrie Dr., Birmingham
Caraway, James E.....35804 John R St., Wayne
Carbone, Louis.....14711 Gratiot Ave., Detroit 5
Carlisle, John C.....1221 Lincoln, Lincoln Park
Carlisle, Jos. D.....1104 Maccabees Bldg., Detroit 2
Carlson, Harold W.....18070 Wildemere Ave., Detroit 21
Carmichael, Edward K.....7815 E. Jefferson Ave., Detroit 14
Carnes, Harry E.....Parke Davis Co., Detroit 32
Carp, Jos.....8717 Van Dyke, Detroit 13
Carpenter, C. J.....P.O. Box 390, Wayne
Carpenter, Glenn B. (L).....2751 W. Seven Mile Rd., Detroit 21
Carpenter, Wm. S.....1553 Woodward Ave., Detroit 26
Carr, James G.....14111 Korte, Detroit 15
Carrick, Lee.....18050 Mack Ave., Grosse Pointe
Carroll, Elmer H.....9920 Stoepel Ave., Detroit 4
Carroll, Lona B. (L)....5057 Woodward Ave., Detroit 2
Carroll, Jerome G.....19723 Dale, Detroit 19
Carson, Herman J.....7745 Puritan Ave., Detroit 38
Carstens, Henry R...6896 N. Clunbury Rd., Birmingham
Carter, John M.....18900 Fairway Dr., Detroit 21
Carter, Leland F.....750 Middlesex G.P.P., Detroit 30
Cassel, Harry E.....6525 Park, Allen Park
Castle, Maurice E.....18980 Wyoming, Detroit 21
Castrop, Chas. W.....10149 Michigan Ave., Dearborn
Catherwood, Albert E. (L).....1337 D. Whitney Bldg., Detroit 26
Caton, Dorothy F. (A).....19182 Mendota, Detroit 21
Caughey, Andrew F., Jr.....16889 James Couzens Hwy., Detroit 35
Caughey, Edgar H.....11301 Whittier St., Detroit 24
Caumartin, Fred E.....17184 Wildemere, Detroit 21
Cellar, Frank A., Jr.....5057 Woodward Ave., Detroit 2
Ceravolo, Albert J.....468 Cadieux Rd. G.P., Detroit 30
Cetnar, Eugene J.....4322 Bishop, Detroit 24
Chabut, V. Geo.....206 W. Dunlap St., Northville
Chalat, Ned I.....1553 Woodward Ave., Detroit 26
Chall, Henry G.....2941 W. McNichols Rd., Detroit 21
Chapin, Sidney E.....125 N. Military, Dearborn 7
Chapman, Aaron L. (L).....2550 Atkinson, Detroit 6
Chapman, Paul T.....1151 Taylor Ave., Detroit 2
Chapman, Roland H.....7600 John R St., Detroit 2

Chapman, Thomas H.....18901 Grand River Ave., Detroit 23
Chapnick, Henry A.....19322 Wyoming, Detroit
Chapper, Barbara M.....861 Monroe, Dearborn
Charleston, R. A.....17256 Pierson, Detroit 19
Charnas, Sidney.....5057 Woodward Ave., Detroit 2
Chase, Clyde H. (R).....8868 Hendrick Dr., Brighton
Chason, Jacob L.....1401 Rivard St., Detroit 7
Check, Frank E.....76 W. Adams Ave., Detroit 26
Chen, Calvin H.....State Hosp., Northville
Chesluk, Herman M.....17191 J. Couzens Hwy., Detroit 35
Chester, Alice.....25085 Coolidge Hwy., Oak Park
Chester, Wm. P.....2916 Seminole, Detroit 14
Childs, Geo. M.....2842 W. Grand Blvd., Detroit 38
Chipman, Willard A.....14300 W. McNichols Rd., Detroit 35
Chostner, Grover C. (R).....841 Eden Isle Blvd., St. Petersburg, Fla.
Chown, Marion C.....2853 Biddle St., Wyandotte
Christopher, James G.....4777 E. Outer Dr., Detroit 34
Chrouch, Laurence A.....18456 Grand River, Detroit 23
Church, Aloysius S.....19570 Bretton Dr., Detroit 23
Cioffari, Mario S.....19363 Jas. Couzens Hwy., Detroit 35
Ciprian, Jos. E.....1775 E. Grand Blvd., Detroit 11
Clapper, Muir.....6294 McClellan Ave., Detroit 13
Clark, Arthur M.....318 Beechmont, Dearborn
Clark, Chas. J.....136 S. Highland, Dearborn
Clark, Clarence M.....2605 Holbrook Ave., Detroit 12
Clark, Harold E.....17198 Oak Dr., Detroit 21
Clark, Harry G. (R).....5455 Franklin Rd., Birmingham
Clark, Wm. P.....511 E. Ann St., Ann Arbor
Clarke, Chas. N.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E., Jr...2501 W. Grand Blvd., Detroit 8
Clarke, Robt. B.....76 W. Adams Ave., Detroit 26
Clifford, Chas. H.....10 Peterboro St., Detroit 1
Clifford, George O., Jr.....Wayne State Univ. College of Medicine, Detroit
Clifford, John E.....232 Stephens, Detroit 36
Clifford, Thos. P. (L).....1553 Woodward Ave., Detroit 26
Climie, Andrew R. W.....Harper Hospital, Detroit 1
Cline, Richard S.....15101 Plymouth Rd., Detroit
Clippert, Julius C. (L).....Hotel Fort Shelby, Detroit
Coan, Glenn L.....2336 Van Alstyne Blvd., Wyandotte
Coates, E. Osborne, Jr.....253 Hillcrest Rd., Grosse Pointe Farms 36
Cobane, John H.....10 Peterboro Ave., Detroit 1
Cochrane, Edgar G.....503 Med. Arts Bldg., Detroit 3
Cocorelis, S. G.....610 Kales Bldg., Detroit 26
Cohen, Herbert H.....12700 W. 7 Mile Rd., Detroit 35
Cohen, Melvin F.....20242 Braile, Detroit 19
Cohn, Daniel E.....2211 Woodward Ave., Detroit 1
Cohoe, Don A. (L)....18916 Woodward Ave., Detroit 3
Cole, Frederick H. (L)..1553 Woodward Ave., Detroit 26
Cole, James E.....344 Glendale Ave., Detroit 3
Cole, Wyman C. C.....3011 W. Grand Blvd., Detroit 2
Cole, Wyman C. C., Jr...3011 W. Grand Blvd., Detroit 2
Coleman, Margarete W. (L).....58 W. Adams Ave., Detroit 26
Coleman, Peter F.....31410 Joy Rd., Livonia
Coleman, Wm. G.....20526 Grand River Ave., Detroit 19
Collings, M. Raymond..9201 W. Outer Drive, Detroit 19
Collins, James E.....13103 W. Chicago Blvd., Detroit 28
Colvin, Leslie T.....3011 W. Grand Blvd., Detroit 2
Colyer, Raymond G.....284 Pilgrim, Birmingham
Comfort, Milton D.....Flat Rock
Comly, Hunter H.....5475 Woodward, Detroit 7
Compton, Wm. C., Jr.....36825 Bibbins, Romulus
Comstock, Lawrence A.....2299 West Road, Trenton
Conklin, Emma J.....Wayne Co. Gen. Hosp., Eloise
Conley, Lowry C. M. (L)....99 Tuxedo Ave., Detroit 3
Connelly, Richard C.....1401 David Wh. Bldg., Detroit
Connolly, Frank O.....13815 Puritan Ave., Detroit 27
Connolly, Paul J.....16778 Westmoreland Rd., Detroit 19
Connors, John J.....3546 Trumbull Ave., Detroit 8
Cook, James A.....2246 20th Street, Wyandotte
Cook, James C.....3825 Brush St., Detroit 1
Cooksey, Warren B.....19510 Stratford Rd., Detroit 21
Cooper, Edmund L.....914 Shirley Dr., Birmingham
Cooper, James B.....18145 Mack Ave., Detroit 24
Cooper, Ralph R.....1915 Dav. Whitney Bldg., Detroit 5
Cooper, Richard F.....1553 Woodward Ave., Detroit 26
Corbeille, Catherine.....3011 W. Grand Blvd., Detroit 2
Cortez, Joseph A.....16901 James Couzens, Detroit 35
Costello, Russell T.....3001 W. Grand Blvd., Detroit 2
Costello, Stephen D.....2900 S. Fort St., Detroit 17
Cotruro, Louis D.....3640 McDougall Ave., Detroit 7
Cotton, Schuyler O. (R).....7904 Vernon Highway, Detroit 9
Coulter, Wm. J.....5258 Chatsworth, Detroit 24
Courtney, Rufus S.....Wayne Co. Gen. Hosp., Eloise
Courville, Chas. J.....5057 Woodward Ave., Detroit 2
Cowan, Wilfrid.....14239 Chandler Pk. Dr., Detroit 13
Cowen, Leon B.....5057 Woodward Ave., Detroit 2
Cowen, Robt. L.....91 E. Kirby, Detroit 2
Cox, Frank, Jr.....Henry Ford Hospital, Detroit 2
Coyle, James E.....3011 W. Grand Blvd., Detroit 2
Craig, Roy E.....74 Fontana Lane, Grosse Pointe Shores
Crawford, Edward W.....63 Meadow Lane, Grosse Pointe 36
Crews, Thos. H.....3011 W. Grand Blvd., Detroit 2
Crockett, E. E. J.....7341 W. Warren, Detroit 10
Croll, Leo J.....5057 Woodward Ave., Detroit 2
Croll, Maurice.....5057 Woodward Ave., Detroit 2
Crook, Chas. L.....60 Colorado St., Highland Park 3
Cross, Harold E.....68 N. Deepland Rd., Grosse Pointe
Crossen, Robert J.....933 David Wh. Bldg., Detroit
Croushore, James E.....3001 W. Grand Blvd., Detroit 2
Cubberley, Robt. B.....1800 Tuxedo St., Detroit 6
Cueto, Jose M.....14014 E. 7 Mile Rd., Detroit
Cunningham, John J.....1605 East 50th., Chicago 15, Illinois
Curtis, Frank E.....10 Peterboro St., Detroit 1
Curtiss, Wm. P.....1570 Torrey Rd., G.P.W., Detroit 36
Cusick, Paul L.....17575 Oak Dr., Detroit 21
Czuj, John M.....17198 Oak Dr., Detroit 21
Daignault, M. F.....14300 W. McNichols Rd., Detroit
Daitch, Martin H...13011 W. McNichols Rd., Detroit 35
Dale, Edward C.....28 Adams Ave. W., Detroit 26
Dale, Esther H.....1401 Rivard St., Detroit 7
Dale, Mark.....3702 E. 8 Mile Rd., Detroit 34
Daly, Eugene T.....21714 Fenhell St., Detroit 23
Danforth, James C., Jr.....20175 Mack Ave. G.P.W., Detroit 36
Danforth, Mortimer E. (L).....8655 E. Jefferson, Detroit 14
Danforth, Robt. D.....20175 Mack Ave., Detroit 36
Daoust, Patrick H.....VA Hosp., Dearborn
Darling, Chas. E.....3011 W. Grand Blvd., Detroit 2
Darling, Milton A.....3001 W. Grand Blvd., Detroit 2
Darnley, James D.....2799 W. Grand Blvd., Detroit 2
Darpin, Peter H. (L).....6602 W. Fort St., Detroit 9
Dashiell, Grayson F.....1800 Tuxedo, Detroit 6
Davidson, David M.....3011 W. Grand Blvd., Detroit 2
Davidson, Harold H.....17111 Indiana, Detroit 21
Davidson, Harry O.....2799 W. Grand Blvd., Detroit 2
Davies, Thos. S. (L).....15425 Kercheval St., Grosse Pointe 3
Davies, Windsor S.....28 W. Adams Ave., Detroit 26
Davis, Herbert A.....15565 Champagne, Allen Park
Davis, Wm. N.....Wayne Co. Gen. Hosp., Eloise
Dawson, W. A. (R).....304 Avenue B S.E., Winter Haven, Fla.
Day, A. Jackson.....245 Cloverly Rd. G.P.F., Detroit 36
Day, J. C.....1553 Woodward Ave., Detroit 26
Dean, Carleton R. (M).....Office of Vocational Rehab., 42 Broadway, Room 12, New York City 4, N. Y.
De Busk, Roger W.....4160 John R St., Detroit 1
Deering, Robt. J.....1359 Champaign, Lincoln Park
Defever, Cyril R.....19787 Mack Ave., Detroit 36
De Giustino, Caesar.....1175 E. Grand Blvd., Detroit 11
De Groat, Albert F.....1151 Taylor Ave., Detroit 2
Deitch, Daniel.....275 W. Grand Blvd., Detroit 16
Delaini, Stella M.....3011 W. Grand Blvd., Detroit 2

Delaney, James R.....17565 Muirland, Detroit 21
De Lawrence, Betty J.....21576 Michigan Ave., Dearborn
De Lawrence, Thomas....21576 Michigan Ave., Dearborn
Del Giorno, Thos. E.....809 Shoreham, Detroit 36
Del Valle, Mario.....9801 Conant, Detroit 12
Demaray, John F.....15312 Burt Rd., Detroit 23
Dennis, Melvin S.....751 S. Military St., Dearborn
Deponio, Sylvester A...20215 Van Dyke Ave., Detroit 34
Deresz, Alphonse R.....4204 E. Outer Dr., Detroit 34
Derleth, Paul E.....563 W. Oakridge, Detroit 20
Derr, John W.....5057 Woodward Ave., Detroit 2
De Smyter, Geo. C.....15527 E. Warren, Detroit 24
De Spelder, Ray E.....2970 W. Grand Blvd., Detroit 2
Deuby, Owen J.....15121 Seven Mile Rd., Detroit
Deur, Julius J.....Alexander Blain Hosp., Detroit 7
De Vault, Marion L.....1326 St. Antoine, Detroit 26
Devine, Herbert W.....22101 Moross Rd., Detroit 36
Diakow, Lilian M.....2853 Biddle St., Wyandotte
Dibble, Harry F. (L)....1553 Woodward Ave., Detroit 26
Dickenman, Robt. C.....1420 St. Antoine St., Detroit 26
Dickson, Basil R.....337 W. Grand Blvd., Detroit 16
Dickson, Elias L., Jr.....7716 Oakland Ave., Detroit 11
Dickson, Laurie C., Jr.....400 Lincoln Rd., Grosse Pointe 30
Dickson, Leon A.....5535 W. Chicago, Detroit 4
Dickson, Mary D.....18424 Mack Ave., Grosse Pointe 36
Diebel, Nelson W.....660 Cadieux Rd. G. P. Pk., Detroit 30
Diekman, Fred C.....15800 W. McNichols Rd., Detroit 35
Dieterich, Gordon C.....15800 W. McNichols, Detroit 35
Dietze, Margaret R.....861 Monroe, Dearborn
Dietzel, Hugo O. (R)....1024 Seven Mile Rd., Detroit 3
Di Lella, Leonard L.....Henry Ford Hosp., Detroit 2
Dill, Hugh L.....16114 E. Warren Ave., Detroit 24
Dill, J. Lewis.....18615 Birchcrest, Detroit 21
Di Loreto, Panfilo C.....285 Vincennes Pl. G.P.F., Detroit 36
Di Maso, Gennaro J.....21501 Kelly, East Detroit
Dimond, Geo. E.....6853 Orchard St., Dearborn
Dittmer, Edwin F.....18412 Mack Ave. G.P.F., Detroit 36
Ditzler, John W.....490 St. Clair G.P., Detroit 30
Dixon, Frederick W.....245 S. Martha, Dearborn
Dixon, Ray S. (L).....5001 Van Dyke, Detroit 13
Dixon, Robt. K.....201 E. Kirby, Detroit 2
Dodds, John C. (L).....30 Morand Road, Detroit 36
Dodenhoff, Chas. F.....18031 Kelly Rd., Detroit 24
Dodrill, Forest D.....Woodberry Dr., Bloomfield Hills
Doering, Wendell R.....17555 James Couzens, Detroit 35
Dolan, Edward A...817 David Whitney Bldg., Detroit 26
Dolega, Stanley F.....10053 Gratiot, Detroit 13
Dolgoff, Sidney.....15600 Michigan Ave., Dearborn
Dolin, Simon.....Lynn Hospital, Detroit 17
Domzalski, Casimir A...5361 McDougall Ave., Detroit 11
Domzalski, Henry M.....15252 Gratiot Ave., Detroit 5
Donald, Douglas.....7815 E. Jefferson Ave., Detroit 14
Donovan, D. R. (A).....8527 Quincy, Detroit 4
Donovan, Eugene T.....13365 Michigan Ave., Dearborn
Donovan, Richard S.....17555 James Couzens, Detroit 35
Doran, John H.....15101 Plymouth Rd., Detroit 27
Dorman, Jack.....18245 Warrington Dr., Detroit 21
Dorsey, John M.....65 Moss Avenue, Highland Park 3
Doty, Chester A. (L)....1553 Woodward Ave., Detroit 26
Doub, Howard P.....2799 W. Grand Blvd., Detroit 2
Dougherty, Edw. A., Jr.....18241 W. McNichols Rd., Detroit 19
Douglas, Clair L. (L)..1553 Woodward Ave., Detroit 26
Douglass, Robt. C.....32316 Grand River Ave., Farmington
Dovitz, Benj. W.....16820 Greenfield Ave., Detroit 35
Dowdle, Edward (L)....2501 W. Grand Blvd., Detroit 8
Downer, Ira G.....8445 E. Jefferson Ave., Detroit 14
Downes, Geo. O.....15062 Houston, Detroit 5
Drake, Ellet H.....2799 West Grand Blvd., Detroit 2
Drake, James J. (R)....8845 Marygrove Dr., Detroit 21
Draves, Edward F.....19647 Joy Rd., Detroit 28
Drazek, Jos. A.....18980 Wyoming, Detroit 21
Drews, Robt. S.....12500 Broadstreet Blvd., Detroit 4
Drinkaus, Harold I. (M).....1029 Yorkshire, Grosse Pointe 3
Drompp, Ben W.....Det. Receiving Hosp., Detroit 26
Droock, Victor.....10 Peterboro St., Detroit 1
D'Sena, Dorothy.....35084 Chestnut, Wayne
Dubin, Jos. J.....10401 W. Chicago Blvd., Detroit 4
Dubnove, Aaron.....2115 W. Grand Blvd., Detroit 8
Dubois, Paul W.....10 Witherell St., Detroit 26
Dubpernell, Martin S. (L)....4019 Gilbert St., Detroit 10
Dubpernell, Robert O.....18595 Grand River, Detroit 23
Dudek, John J.....16401 Grand River, Detroit 27
Dumke, Paul R.....2799 W. Grand Blvd., Detroit 2
Dundas, Edward M.....1235 Beechmont, Dearborn
Dunlap, Henry A.....7815 Jefferson Ave. E., Detroit 14
Dunn, Cornelius E.....3496 Burns, Detroit 14
Dupler, Gerald E.....10 Peterboro, Detroit 1
Durham, Everett W.....844 N. Highland St., Dearborn
Durham, Robert.....Henry Ford Hosp., Detroit 2
Durocher, Edmund J. (L).....4158 W. Jefferson Ave., Ecorse 18
Dutcher, Dwight J.....711 S. Oxford, Detroit 36
Duwe, Frank A.....25300 Fenkell Ave., Detroit 39
Dwaihy, Paul J.....14530 E. Warren, Detroit 15
Dwyer, Francis W.....18000 James Couzens, Detroit 35
Dyer, H. Lorne.....25139 Myler Ave., Taylor Center
Dykema, Rosemary M.....18424 Mack Ave., G.P.F., Detroit 36
Dziuba, John F.....18901 W. Warren Ave., Dertoit 28
Dzul, Paul (A).....275 W. Grand Blvd., Detroit 16
Eades, Chas. C.....19635 Mack Ave., Detroit 36
Eadie, Gordon A.....16083 Southampton St., Livonia
Eakins, F. J. (R).....Henderson County, Robards, Ky.
Easterly, Robert L.....1404 Ford Ave.. Wyandotte
Eaton, Crosby D.....3011 W. Grand Blvd., Detroit 2
Echt, Raymond J.....Box 3059, Detroit
Eckhous, Arthur W.....76 W. Adams St., Detroit 26
Economy, Donald E.....7854 Kentucky, Dearborn
Eder, Samuel J.....5057 Woodward Ave., Detroit 2
Edgar, Irving I.....5057 Woodward Ave., Detroit 2
Edmonds, Gerald W.....19795 St. Mary's Ave., Detroit 35
Edmonds, Wm. N.....18525 Merriman Rd., Livonia
Edmondson, Robert B.....18501 Mack Ave., Detroit 36
Edwards, James G.....17751 E. Warren Ave., Detroit 24
Egan, Charles F.....Wyandotte Gen. Hosp., Wyandotte
Eisman, Clarence H. (L).....1121 Whittier Rd., Grosse Pointe Park 3
Eldredge, Edw. F.....18540 Mack Ave., Grosse Pointe 36
Elliott, Robert N.....8100 E. Jefferson, Detroit 14
Elliott, Wm. G.....4101 Fenkell Ave., Detroit 38
Ellis, Frank R.....800 S. Lafayette, Dearborn 7
Elman, Meyer J.....14002 Woodward Ave., Highland Park 3
Elson, Abraham L.....20236 Westmoreland, Detroit 19
Elvidge, Robert J.....2900 W. Grand Blvd., Detroit 2
Emmert, Herman C. (L)..4927 N. 34th, Arlington 7, Va.
Engel, Earl H.....2336 Van Alstyne Blvd., Wyandotte
Engstrom, Fredk. W.....22161 W. Outer Dr., Dearborn
Engstrom, Ruby M.....1777 Culver Ave., Dearborn
Eno, Laurel S.....20960 Kelly Rd., East Detroit
Ensign, Dwight C.....Franklin
Erickson, Eldon W.....25750 W. Outer Dr., Lincoln Park
Erman, Jos. M.....9225 Grand River, Detroit 4
Eschbach, Jos. W.....935 S. Military St., Dearborn
Ettinger, Clayton J. (L).....18734 Woodward Ave., Highland Park
Evans, Douglas M.....Henry Ford Hosp., Detroit 2
Evans, Gomer P., Jr.....1553 Woodward Ave., Detroit 26
Evans, Jos. M.....16431 Harper, Detroit 24
Evans, Leland S.....16545 Trinity, Detroit 19
Evans, Warren.....9025 Linwood, Detroit 6
Evison, Emerson O.....1003 Hawthorne Rd., Grosse Pointe Woods
Ewing, Chas. H.....17120 E. Warren, Detroit 24
Eyler, Wm. R.....2799 W. Grand Blvd., Detroit 2
Eyres, Alfred E.....3011 W. Grand Blvd., Detroit 2
Fachnie, Harold L.....4741 Spokane Ave., Detroit 4
Faello, Sebastian J.....16840 E. Warren Ave., Detroit 24
Fagin, Irving D.....18254 Livernois Ave., Detroit 21

Falick, Mordecai L.....3011 W. Grand Blvd., Detroit 2
Falk, Ira E.....17411 Cherrylawn, Detroit 21
Fallis, Lawrence S.....2799 W. Grand, Detroit 2
Fandrich, Theodore S.....19557 Mack Ave., Detroit 36
Farbman, Aaron A.....14515 Kercheval, Detroit 15
Farmer, Wm. L., Jr.....8633 John R. St., Detroit 2
Farnam, Larry M., Jr.....19787 Mack Ave., Detroit 36
Faunce, Sherman P.....1824 Seminole St., Detroit 14
Fea, John F.....6071 W. Outer Dr., Detroit 35
Feigelson, Howard H.....Sinai Hosp., Detroit 35
Felcyn, W. Geo.....2091 W. Grand Blvd., Detroit 8
Feld, David.....15101 W. McNichols Rd., Detroit 35
Feldkamp, Lee E.....585 Forest Ave., Plymouth
Feldman, Nathanial L...24370 Tamarack Cir., Detroit 19
Feldman, Paul H.....16800 Greenfield, Detroit 35
Feldstein, Martin Z.....13345 W. McNichols Rd., Detroit 35

Fellner, Wm. A.....3202 Gen. Motors Bldg., Detroit 2
Fenech, Harold B.....10 Peterboro St., Detroit 1
Fenner, Wm. G.....12454 E. Outer Dr., Detroit 24
Fennessey, John F.....17121 Maumee, Grosse Pointe 3
Fenton, Edwin H.....15125 Grand River Ave., Detroit 27
Fenton, Meryl M.....8600 W. McNichols Rd., Detroit 21
Fenton, Russell F.....15125 Grand River Ave., Detroit 27
Fenton, Stanley C.....15618 E. Warren, Detroit 24
Fentress, Vance.....641 David Whitney, Detroit 26
Ferrara, Louis V.....13805 Park Grove., Detroit 5
Ferrara, Richard J.....20323 Mack, Grosse Pte. Woods
Ferrara, Virginia M.....18422 Woodward, Detroit 3
Ferris, George N.....17555 James Couzens, Detroit 35
Ferszt, Marion S.....18019 Rutherford, Detroit 35
Figiel, Leo S.....719 Berkshire, Grosse Pointe 3
Figiel, Steven J.....4160 John R St., Detroit 1
Filkin, Lawrence E.....621 Fairbrook, Northville
Fill, Leon.....987 E. Jefferson, Detroit 7
Finch, Alvis D...18000 James Couzens Hwy., Detroit 35
Finch, F. Sinclair.....894 N. Renaud, G.P.W., Detroit 36
Finck, Jerome H.....25447 Plymouth Rd., Detroit 39
Fine, Edward.....76 W. Adams Ave., Detroit 26
Fink, Samuel.....10161 Burton, Oak Park
Finkell, Lawrence J.....15231 W. 7 Mile Rd., Detroit 35
Finkelstein, Lionel (A)....21415 W. 8 Mile Rd., Detroit
Finkelstein, M. B.....18254 Livernois, Detroit 21
Firnschild, Paul G.....2966 Biddle, Wyandotte
Fischer, Fredk. J.....654 Fisher Bldg., Detroit
Fischhoff, Jos.....18674 Fairfield, Detroit 21
Fishbein, Herbert L.....987 E. Jefferson Ave., Detroit 7
Fisher, Geo. S.....1101 Whittier Ave., Grosse Pointe 3
Fisher, James M.....79 Kercheval Ave., Grosse Pointe 36
Fisher, Otto O. (L).....2475 Iroquois Ave., Detroit 14
Fisher, Ralph L.....8445 E. Jefferson Ave., Detroit 14
Fitzgerald, James M.....2536 W. Grand Blvd., Detroit 8
Fitzpatrick, F. W.....21580 Greenfield, Detroit 37
Flaherty, Henry J...19600 W. McNichols Rd., Detroit 19
Flaherty, Norman W.....24315 Fairmont Dr., Dearborn
Flake, Thomas M.....9025 Linwood, Detroit 6
Fleming, Jos. L.....7360 LaSalle Blvd., Detroit 6
Flora, Wm. R.....8100 E. Jefferson Ave., Detroit 14
Flower, James A.....14140 Puritan Ave., Detroit 27
Foertsch, Fred E.....VA Hosp., Cheyenne, Wyo.
Fogt, Herbert E.....11801 Morang Dr., Detroit 24
Fogt, Robert G.....11801 Morang Dr., Detroit 24
Foley, Hugh S.....22255 W. Michigan Ave., Dearborn
Font, Anthony J.....76 Adams Ave., Detroit 26
Foote, John A.....1336 Southfield Rd., Lincoln Park
Ford, Geo. A. (L).....28 W. Adams Ave., Detroit 26
Fordell, Frank S.....441 S. Oakwood Ave., Detroit 17
Forgrave, Edward G.....18520 Grand River, Detroit 23
Forrer, Gordon R.....20141 James Couzens, Detroit 35
Fosnaugh, Robert P.....6214 Appoline, Dearborn
Foster, E. Bruce.....3001 W. Grand Blvd., Detroit 2
Foster, Owen C.....1553 Woodward Ave., Detroit 26
Foster, Wallace M.....13700 Woodward Ave., Highland Park 3

Fowler, Melvin E.....247 E. Warren St., Detroit 1
Fraiberg, Paul L.....13001 W. Chicago Blvd., Detroit 28
Frame, Boy.....1051 Covington Dr., Detroit 3
France, Chas. J.....838 Berkshire Rd., Grosse Pte. 3
Franjac, Marion J.....25447 Plymouth Rd., Detroit 28
Franklin, John E.....27545 Michigan Ave., Inkster
Franzen, Nils A.....19566 W. Grand River, Detroit 23
Frazer, Mary M.....76 W. Adams Ave., Detroit 26
Frederickson, Geo. C.....1116 Maccabees Bldg., Detroit 2
Free, Harry W.....14300 W. McNichols, Detroit 35
Freedman, John.....4853 Second Blvd., Detroit 1
Freedman, Milton....18626 Santa Barbara Dr., Detroit 21
Freeman, Donald K.....881 Chalmers St., Detroit 15
Freeman, Mable.....10 Witherell, Detroit 26
Freeman, Michael W.....1810 Wellesley Dr., Detroit 3
Freeman, Wilmer.....18600 Muirland Ave., Detroit 21
Freid, Samuel.....16850 Joy Rd., Detroit 28
Freier, Morton L.....13051 Puritan Ave., Detroit 27
Freitas, Eugene L.....22101 Moross Rd., Detroit 36
Fremont, J. Courtney....1553 Woodward Ave., Detroit 26
Frenkel, Eugene P. (A).....Univ. Hosp., Ann Arbor
Frey, James L.....1553 Woodward Ave., Detroit 26
Friedlaender, Alex S.....10300 W. 7 Mile Rd., Detroit 21
Friedlaender, Sidney....10300 W. 7 Mile Rd., Detroit 21
Friedman, David.....2429 E. Milwaukee Ave., Detroit 11
Friedman, Isidor H.....3773 2nd Ave., Detroit 1
Friedman, Seymour.....5132 Allen Rd., Allen Park
Fritz, Geo. E.....80 Lochmoor Blvd., G.P.S., Detroit 36
Frost, Harold M.....Henry Ford Hosp., Detroit 2
Fryfogle, James D.....CD & Med. Concourse, Northland Center, Detroit 35

Fuller, Hugh M.....1553 Woodward Ave., Detroit 26
Fulton, Harold E., Jr.....3825 Brush St., Detroit 1
Fulton, Wm. J.....28536 Wildwood Trail, Farmington

Gaffney, J. Mitchell.....13600 Ohio, Detroit 38
Gagliardi, Carl A.....3725 Fort St., Lincoln Park
Gagliardi, R. A.....15864 Rosemont Rd., Detroit 23
Gajewski, John E.....Parke Davis and Co., Detroit 32
Galantowicz, H. C.....7433 Michigan Ave., Detroit 10
Galdonyi, Laslo.....2311 D. Broderick Tower, Detroit 26
Galdonyi, Nicholas....8001 W. Jefferson Ave., Detroit 17
Galerneau, Darrell B.....7394 Engleman, Center Line
Gall, Henry.....275 W. Grand Blvd., Detroit 16
Galvin, Paul P.....14440 W. McNichols, Detroit 35
Ganos, Thos.....6525 Park St., Allen Park
Ganschow, John H.....1840 Holbrook Ave., Detroit 12
Gardner, Lawrence W.....6071 W. Outer Dr., Detroit 35
Gardner, Max L.....19557 Mack Ave., Grosse Pointe
Gariepy, Louis B.....16401 Grand River St., Detroit 27
Gass, H. Harvey.....76 W. Adams, Detroit 26
Gaston, Herbert B.....7501 W. Morrow Circle, Dearborn
Gates, Nathaniel.....516 Professional Bldg., Detroit 1
Gaynor, Alex.....1435 E. 7 Mile Rd., Detroit 3
Gehring, Harold W.....20211 Greenfield, Detroit 35
Geib, Ledru O. (L)....3528 Van Dyke Ave., Detroit 14
Geitz, Wm. A.....7234 E. Forest Ave., Detroit 14
Gelbach, Philip D.....15803 Rosemont Rd., Detroit 23
Gemeroy, Jos. C.....962 Fisher Bldg., Detroit 2
Gerbasi, Francis S.....2201 E. Jefferson, Detroit 7
Gerisch, Robert A.....1217 David Whitney, Detroit 26
Gerondale, Elmond J.....3001 W. Grand Blvd., Detroit 2
Gibson, Dunbar P.....1098 E. Grand Blvd., Detroit 7
Gibson, Wm.....7440 Mack Ave., Detroit 14
Giese, Fred W.....18526 Schoolcraft, Detroit 23
Gigante, Nicola.....10 Peterboro, Detroit 1
Gigliotti, David.....2500 W. Grand Blvd., Detroit 8
Gilbert, Harold R.....13146 Phelps, Wyandotte
Gillespie, Stephen M.....1011 Haigh Ave., Dearborn
Gilpin, Watson A.....4560 Nicigara Lane, Birmingham
Gilreath, James L.....9041 Dexter, Detroit 6
Gimbel, Nicholas S.....1401 Rivard St., Detroit 7
Ginsberg, Harold I.....15344 McNichols Rd., Detroit 2
Gitlin, Chas.....15301 W. 9 Mile Rd., Oak Park 37
Gittins, Perry C.....20210 Renfrew Ave., Detroit 21
Givens, Donovan H.....3453 Charlevoix Ave., Detroit 7
Gizynski, Waldemar E.....15400 Edington Rd., Livonia
Glas, Wayne W.....Wayne Co. Gen. Hosp., Eloise
Glasgow, G. K.....1170 Harvard Rd., G.P.P., Detroit 30
Glassman, Samuel (L)....60 W. Hancock Ave., Detroit 1
Glazer, Walter S.....1490 Charrington Rd., Birmingham
Glees, John L.....P.O. Box 1318, Detroit
Glemet, Raymond B.....3314 Bagley Ave., Detroit 16

Glikman, Victor.....20131 James Couzens, Detroit 35
Glowacki, Ben F.....5057 Woodward Ave., Detroit 2
Glowacki, Edward T.....5224 St. Antoine St., Detroit 2

Godley, Alegro J.....18060 Conant St., Detroit 34
Goerke, Elmer A.....36663 Goddard Rd., Romulus
Goetz, Angus G.....1553 Woodward Ave., Detroit 26
Goins, Wm. F.....6675 Tireman, Detroit 4
Goldberg, Arthur.....340 E. 8 Mile Rd., Detroit 3
Goldberg, H. H. (L)....2211 Woodward Ave., Detroit 1
Goldberg, Nathan H.....2211 Woodward Ave., Detroit 1
Golden, Alfred.....26764 York Rd., Huntington Woods
Goldfaden, Alfred.....6658 W. Fort St., Detroit 9
Goldin, Morris I.....5057 Woodward Ave., Detroit 2
Goldman, Aubrey.....19995 Renfrew Rd., Detroit 21
Goldman, Perry.....16805 Princeton, Detroit 21
Goldrath, Milton H.....569 Fisher Bldg., Detroit 2
Goldstein, Abe S.....18450 North Lawn, Detroit 21
Goldstein, Sidney.....22140 Marlow Ave., Oak Park 37
Goldstone, Rubie R.....10 Peterboro, Detroit 1
Gollman, Maurice D.....5057 Woodward Ave., Detroit 2
Gomley, Romuald H.....7220 Gratiot Ave., Detroit 13
Gonne, Wm. S.....18903 Fairfield Ave., Detroit 21
Goodman, Maxwell M...13610 Michigan Ave., Dearborn
Goodman, Virgil P.....762 Bedford Rd., Grosse Pte. Pk.
Goodwin, Norman L.....18700 Meyers Rd., Detroit 35
Goodwin, Warren W.....20131 James Couzens, Detroit 35
Goodwin, William P.....3413 McDougall, Detroit 7
Gordon, John W. (R)....12700 Mendota Ave., Detroit 4
Gordon, Wm. E.....18058 Greenfield, Detroit 35
Gorelick, Martin J.....23901 Michigan Ave., Dearborn
Gorning, Raymond P...857 Marlborough Ave., Detroit 15
Goryl, Stephen V.....21501 Kelly, East Detroit
Goss, Samuel B.....17166 Roselawn, Detroit 21
Gostine, Edmond J.....9750 Chalmers, Detroit 5
Gottlieb, Jacques S.....951 E. Lafayette, Detroit 7
Gottschalk, Fred W.....5057 Woodward Ave., Detroit 2
Goudie, Fredk. D.....27210 Eldorado, L.V., Birmingham
Gould, Sylvester E.....Wayne Co. Gen. Hosp., Eloise
Goux, R. S. (L).....545 D. Whitney Bldg., Detroit 26

Grace, Jos. M.....27453 Rainbow Circle, Lathrup Village
Grady, Jos. A.....946 Three Mile Dr., G.P.P., Detroit 30
Grafflin, Allan L. (A).....Henry Ford Hosp., Detroit 2
Graham, John G., Jr.....491 Lincoln Rd., Grosse Pte. 3
Graham, Julius A.....4102 Brush St., Detroit 1
Grajewski, Leo E. (L)..2201 E. Jefferson Ave., Detroit 7
Gramley, Wm. (L).....10575 Morang Dr., Detroit 24
Granger, Francis L.....14160 Gratiot Ave., Detroit 5
Granger, George R.....705 D. Whitney Bldg., Detroit 26
Grant, Abraham H.....18024 Sorrento, Detroit 35
Grant, Heman E. (L).....Lewiston
Gratton, Henri L. (L).....76 W. Adams Ave., Detroit 26
Graves, James H.....17007 Kercheval, Detroit 30
Gray, Howard O.....1308 Broadway, Detroit 26
Gray, Jacques P.....8900 E. Jefferson Ave., Detroit 14

Greek, Louis M.....12901 E. McNichols, Detroit 5
Green, Edward W.....2799 W. Grand Blvd., Detroit 2
Green, Ellis R. (L).....5172 Scotten Ave., Detroit 10
Green, Lewis.....13000 Grand River, Detroit 27
Green, Louis M.....14636 E. 7 Mile Rd., Detroit 5
Green, Nelson W.....15800 W. McNichols, Detroit 35
Greenberg, Jack R.....15821 W. 7 Mile Rd., Detroit 35
Greenberg, Julius J.....8600 W. McNichols, Detroit 21
Greenberg, Morris Z.....9105 Van Dyke, Detroit 13
Greenberg, Stanley.....3919 John R St., Detroit 1
Greene, John B.....2179 W. Grand Blvd., Detroit 8
Greenidge, Robert I. (L)....4839 Beaubien St., Detroit 1
Greenlee, Wm. T.....15053 Maddelein, Detroit 5
Greenslit, Frank S.....U.S. Vets Adm. Hosp., Dearborn
Gregory, Louis J.....15220 Collingham, Detroit 5
Greifenstein, F. E.....1401 Rivard, Detroit 7
Greiner, Bert A.....14607 E. 7 Mile Rd., Detroit
Grekin, John N.....7421 W. 7 Mile Rd., Detroit 21
Grier, Wm. H.....2200 W. Boston Blvd., Detroit
Griffin, Robert J.....4900 Cadieux, Detroit 24
Griffiths, Sydney J.....15400 Plymouth Rd., Detroit 27
Grimaldi, Gregory J.....1071 E. Grand Blvd., Detroit 7
Grinstein, Alexander.....(No Address)
Grishkoff, M. A.....2201 E. Jefferson, Detroit 7
Griva-Lizlovs, S.....29901 Ford Rd., Garden City
Grob, Otto.....7385 Parkstone Lane, Birmingham
Gross, Louis.....18937 Van Dyke St., Detroit 34
Grossman, Solomon C.....5057 Woodward Ave., Detroit 2
Guerrero, Jose.....13700 Woodward, Detroit 3
Guidot, Julian M.....16401 Grand River, Detroit
Guimaraes, Abilio S.....7301 Schaffer Hwy., Dearborn
Guinan, George E.....27614 Gainsborough, Inkster
Gulick, Arthur E.....1429 D. Whitney Bldg., Detroit 26
Gurdjian, Elisha S.....1553 Woodward Ave., Detroit 26
Gurskis, Eugenia E.....76 W. Adams Ave., Detroit 26
Gutow, Benjamin R.....7441 W. 7 Mile Rd., Detroit 21
Guyton, Jack S.....2799 W. Grand Blvd., Detroit 2

Hacker, Elaine M.....760 Fisher Bldg., Detroit 2
Hackert, John L.....2900 S. Fort St., Detroit 17
Hackelman, G. L. (A).....430 Pitsanuloke Rd., Bangkok, Thailand
Haddad, Benjamin F.....1010 Mich. Mutual Bldg., Detroit 26
Hadesman, Donald.....985 E. Jefferson, Detroit 7
Haefele, Leslie P.....29108 Ford Rd., Garden City
Hagermoser, H. H.....5991 Yorkshire, Detroit 24
Hagge, Donald R.....1553 Woodward Ave., Detroit 26
Hague, Gilbert W.....1116 Maccabees Bldg., Detroit 2
Haidostian, Benj. H.....18456 Grand River, Detroit 23
Haisten, Maurice W.....Henry Ford Hosp., Detroit 2
Haitinger, K. S.....327 Professional Bldg., Detroit 1
Haking, Leonard.....14014 E. 7 Mile Rd., Detroit 5
Hale, Arthur S.....1553 Woodward Ave., Detroit 26
Halekas, G. Peter.....21727 Mack Ave., St. Clair Shores
Hall, Arch H.....10 Peterboro, Detroit 1
Hall, E. Walter.....19210 Bretton Dr., Detroit 23
Hall, James A. J. (L).....76 W. Adams St., Detroit 26
Hall, Ralph E.....10 Peterboro St., Detroit 1
Hall, Robert J.....6014 W. Fort St., Detroit 9
Hall, Winthrop D...Ford Motor Co., Box 2066, Livonia
Hallen, Leonard J.....18205 Parkside, Detroit 21
Hamada, Norman K.....315 Snell Rd., R. 2, Rochester
Hamburg, Robert H.....17317 Chapel Ave., Detroit 19
Hamburger, Albert C.....13345 W. McNichols, Detroit
Hamburger, J. I. (A)..16650 James Couzens, Detroit 21
Hamburger, Stuart W...16650 James Couzens, Detroit 21
Hamil, Brenton M.....2799 W. Grand Blvd., Detroit 2
Hamilton, Norman C...300 W. McNichols Rd., Detroit 3
Hamilton, Quentin P.....Medical Arts Bldg., Detroit 3
Hamilton, Wm. F. (L)....234 E. Grand Blvd., Detroit 7
Hammer, Edwin J.....16616 Mack Ave., Detroit 24
Hammer, Roy W.....16620 E. Warren, Detroit 24
Hammond, Arthur E.....1553 Woodward Ave., Detroit 26
Hammond, James L. (L).....1911 Sunset Dr., Escondido, Calif.
Hand, Fordus V.....81 E. Kirby St., Detroit 2
Handel, Jack E.....1800 Tuxedo, Detroit 6
Hank, Emil J.....32316 Grand River, Farmington
Hansen, Fredk. E. (L).....15560 Puritan, Detroit 27
Hanyi, Karl.....1771 Ackley, Wayne
Hardstaff, Roy J. (L).....648 Neff Rd., Grosse Pte. 3
Hardt, Barbara A. (A).....15867 Mansfield, Detroit 27
Harelik, Ely W.....15201 W. McNichols, Detroit 35
Harkaway, Roman W.....19125 Van Dyke, Detroit 34
Harley, Garth H.....21831 Willoway Rd., Dearborn
Harley, Louis M.....4100 W. McNichols Rd., Detroit 21
Harm, Winfred B.....16260 Cherrylawn Ave., Detroit 21
Harmon, Edwin L.....441 E. Jefferson, Detroit 26
Harmon, Walter, Jr.....2510 E. Davison, Detroit 12
Harper, Jesse T.....1553 Woodward Ave., Detroit 26
Harrell, Voss.....1035 Oakwood Ave., Dearborn 7
Harris, A. D.....7341 W. Warren, Detroit 10
Harris, Harold H.....8011 W. Vernor Hwy., Detroit 9
Harris, Ivor D.....1553 Woodward Ave., Detroit 26
Harrison, Wm. L.....1110 Clairmount, Detroit 2
Hart, Charles E.....23845 Van Dyke, Center Line
Hart, John C.....9341 Moffat, Detroit 13
Harten, James N.....25750 W. Outer Dr., Lincoln Park
Hartkop, Henry H.....20055 Mack Ave., Detroit 36
Hartquist, Robert J.....1495 Fort St., Wyandotte
Hartzell, John B.....7815 Jefferson Ave. E., Detroit 14
Hasley, Clyde K.....1553 Woodward Ave., Detroit 26

Hasley, Daniel E.....1401 Rivard, Detroit 7
Hassig, Walter W.....20914 Kelly, East Detroit
Hastings, Orville J.....15744 Harper Ave., Detroit 24
Haszczyc, Vladimir A.....Industrial Hosp., Detroit 7
Hathaway, Hubert R.....230 Madison Ave., Detroit 26
Haubrich, Wm. S.....Henry Ford Hosp., Detroit 2
Hauf, Mary A.....5251 Chalmers, Detroit 13
Hause, Glen E.....18520 Grand River, Detroit 23
Hauser, I. Jerome.....7411 3rd Ave., Detroit 2
Hauser, John E.....3001 W. Grand Blvd., Detroit 2
Hauser, Maurice J. (A).....7411 Third Ave., Detroit 2
Hauss, Robert B.....7348 Kercheval, Detroit 14
Havers, Howard (L).....5057 Woodward, Detroit 2
Hawkins, James W.....14237 Greenfield Rd., Detroit 27
Hayes, Allen L.....15121 W. 7 Mile Rd., Detroit 35
Hazen, Roy S.....20526 Grand River Ave., Detroit 19
Heath, Leonard P.....1553 Woodward Ave., Detroit 26
Heavner, Lyle E.....228 Piper Blvd., Detroit 15
Hecht, Manes S.....25717 Coolidge, Oak Park 37
Heenan, Theophilus H...1553 Woodward Ave., Detroit 26
Heideman, Louis E.....20211 Greenfield Rd., Detroit 35
Heldt, Richard F.....1951 Monroe Blvd., Dearborn
Heldt, Thos. J. (L).....2799 W. Grand Blvd., Detroit 2
Hellems, Harper K.....1401 Rivard, Detroit 7
Hendelman, Manuel H.....17141 Hayes, Detroit
Henderson, Allison B.....9041 Dexter Blvd., Detroit 6
Henderson, Arthur B. (L)..10452 Mack Ave., Detroit 14
Henderson, Chas. W.....3011 W. Grand Blvd., Detroit 2
Henderson, Harold.....3011 W. Grand Blvd., Detroit 2
Henderson, Hugh W.....17830 E. Warren, Detroit 24
Henderson, Leslie T.....14814 E. Warren, Detroit 15
Henderson, Wm. E.....9341 Chalmers, Detroit 13
Henig, Fred N.....7605 W. 7 Mile Rd., Detroit 21
Henkin, Raymond.....20232 Braile, Detroit
Henkin, Wm. A.....18215 Greenfield, Detroit 35
Henrich, Laurence E.....2501 W. Grand Blvd., Detroit 8
Henry, Robert C.....16127 Baylis, Detroit 21
Herbst, Harold B...27330 Southfield Rd., Lathrup Village
Herrold, Rose E.....1277 E. Grand Blvd., Detroit 11
Herschelmann, Roy F.....3343 Gratiot Ave., Detroit 7
Hertzler, Jack H.....3011 W. Grand Blvd., Detroit 2
Herwick, John T.....2799 W. Grand Blvd., Detroit 2
Hess, Murray W.....23860 Seneca, Oak Park 37
Heyman, Louis F.....19009 W. 7 Mile Rd., Detroit 19
Heyner, Stanley A.....3424 Oakman Blvd., Detroit 4
Hickey, Jos.....6004 W. Fort St., Detroit 9
Hicks, Fredk. G.....1000 Westwood, Birmingham
Hill, Edward J., Jr.....1553 Woodward Ave., Detroit 26
Hill, Gerald (M).....(No Address)
Hill, Welford T.....6303 Mack Ave., Detroit 7
Hillenberg, Sidney J.....19350 W. 7 Mile Rd., Detroit 19
Hiller, Glenn I.....13700 Woodward Ave., Detroit 3
Hiller, Herbert M.....1057 Covington Dr., Detroit 3
Hillier, Leland G.....18750 Woodward Ave., Detroit 3
Hillyer, John W.....26151 Huron River Dr., Flat Rock
Hilton, Wm. E.....5013 Harding, Detroit 13
Hipps, Chauncey J.....2605 W. Grand Blvd., Detroit 8
Hiratzka, Tomiharu.....1401 Rivard St., Detroit 7
Hirsch, Lore.....212 S. Melborn, Dearborn
Hirschfeld, A. H.....829 Fisher Bldg., Detroit
Hirschman, Louis J. (L).....2619 Munson Ave., Traverse City
Hirt, Harry.....18975 Cherrylawn, Detroit 21
Hoagland, F. L. (A).....1260 E. Grand Blvd., Detroit 11
Hoagland, Thos. V.....81 E. Kirby, Detroit 2
Hobbs, Don. Y...27305 Southfield Rd., Lathrup Village
Hochman, Morton M.....16633 Plymouth Rd., Detroit 27
Hodges, Jason.....26401 Harper, St. Clair Shores
Hodgkinson, C. P...17546 Meadwood Ave., Birmingham
Hoffer, Thos.....5825 Allen Rd., Allen Park
Hoffman, Ben G.....300 W. McNichols Rd., Detroit 3
Hoffman, Edward A.....10125 Tireman St., Dearborn
Hoffman, Edwin S.....14877 Warwick Rd., Detroit 23
Hoffman, Harry Y.....15085 E. 7 Mile Rd., Detroit 5
Hoffman, Henry A.....10015 E. Outer Dr., Detroit 24
Hoffman, Louis.....18203 Birchcrest Dr., Detroit 21
Hoffman, Milton C.....18555 E. Warren, Detroit 36
Hoffmann, Martin H.....1553 Woodward Ave., Detroit 26
Hogikyan, Azat.....16901 W. McNichols Rd., Detroit 35
Holdredge, Jean M.....3011 W. Grand Blvd., Detroit 2
Hollander, Abraham J.....8026 Michigan Ave., Detroit 10
Hollinger, F. Wayne.....2799 Grand Blvd., Detroit 2
Hollis, Henry B.....6821 Sarena, Detroit 10
Holloway, Horace R.....2017 W. Boston Blvd., Detroit
Holloway, Janet L.....1116 Maccabees Bldg., Detroit 2
Holmes, George F.....12170 Fort St., Wyandotte
Holt, Chas. J., Jr.....1575 Faircourt, Grosse Pointe 36
Holt, Henry T.....5050 Cass St., Detroit 2
Honhart, Fred L. (L).....1405 Berkshire Rd., Grosse Pointe 3
Hooker, Lyle T.....35550 Michigan Ave., Wayne
Hookey, John A.....2918 Biddle Ave., Wyandotte
Hoops, Geo. B. (L).....3001 W. Grand Blvd., Detroit 2
Hopkins, Andrew J.....10149 Michigan Ave., Dearborn
Hopkins, Scovell M.....5057 Woodward Ave., Detroit 2
Hopkins, Wm. J.....1069 Fisher Bldg., Detroit 2
Horn, Robert C., Jr.....2799 W. Grand Blvd., Detroit 2
Horny, Hugo O...619 Barrington Rd., G.P.P., Detroit 30
Horton, Reece H.....1553 Woodward Ave., Detroit 26
Horvath, James J.....1553 Woodward Ave., Detroit 26
Hotchkiss, Loris M.....33220 W. 7 Mile, Livonia
House, Walter W., Jr.....10350 Twelfth St., Detroit 6
Howard, Austin Z.....1553 Woodward Ave., Detroit 26
Howard, Philip J.....19501 Cumberland, Detroit 3
Howell, Bert F.....10800 Whittier Rd., Detroit 24
Howell, James T.....2799 W. Grand Blvd., Detroit 2
Howell, Reginald S. (A).....State Hosp., Northville
Howes, Homer A.....9322 Artesian, Detroit 28
Howes, Willard B.....4404 Samosot Rd., Royal Oak
Howlett, Howard T.....3011 W. Grand Blvd., Detroit 2
Hranchook, Michael.....5042 Haverhill, Detroit 24
H'romadko, Louis.....3011 W. Grand Blvd., Detroit 2
Hubbard, John P., Jr.....14620 E. 7 Mile Rd., Detroit 5
Huber, Philip J.....1724 Bassett, Royal Oak
Hudson, J. Stewart.....17443 E. Jefferson Ave., Grosse Pointe 3
Hudson, Wm. A.....1553 Woodward Ave., Detroit 26
Hudspeth, E. Rae.....753 Fisher Bldg., Detroit 2
Huegli, Wilfred A.....16840 E. Warren Ave., Detroit 24
Huggins, H. Horne.....6812 Kercheval, Detroit 7
Hulick, Archie G.....15525 Amherst Rd., Birmingham
Hull, Leroy W. (L)....20115 Canterbury Rd., Detroit 21
Hume, H. Ross, Jr.....1553 Woodward, Detroit 26
Huminski, Thaddeus S.....19244 Van Dyke Ave., Detroit 34
Hummel, Arthur R.....1020 3 Mile Dr., Grosse Pte. 3
Hunt, Theodore H.....19431 Van Dyke Ave., Detroit 34
Hunt, Verne G.....1553 Woodward Ave., Detroit 26
Hunter, Basil H.....13341 Livernois Ave., Detroit 38
Hunter, Robert B.....Henry Ford Hosp., Detroit 2
Husband, Chas. W. (L)....14500 W. McNichols, Detroit
Husband, Raymond C...14500 W. McNichols, Detroit 35
Hutchins, M. Colton.....3011 W. Grand Blvd., Detroit 2
Hyatt, Jarvis M.....22340 Michigan Ave., Dearborn
Hyde, Fredk. W., Jr.....14255 Faust Ave., Detroit 23
Hyland, John R.....13030 Mack Rd., Detroit 15
Hyman, Samuel J.....27342 Michigan Ave., Inkster
Hysni, Aliqemal.....8031 W. Vernor Hwy., Detroit 3
Iacobell, Peter H.....19300 Van Dyke, Detroit 34
Ice, Garnet T.....18060 Conant, Detroit 34
Igna, Eli J.....2799 W. Grand Blvd., Detroit 2
Irwin, Earle A.....Ford Motor Co., Dearborn
Irwin, Wm. A.....2500 W. Grand Blvd., Detroit 8
Israel, Barney B.....5057 Woodward Ave., Detroit 2
Israel, J. Gilbert.....5057 Woodward Ave., Detroit 2
Israel, Kenneth.....5057 Woodward Ave., Detroit 2
Iwata, Herbert T.....7611 Patton Ave., Detroit 28
Izner, Sanford M.....17500 Schaefer Hwy., Detroit 35
Jacknow, David.....60 W. Hancock, Detroit 1
Jacobs, Arnold.....29619 Ann Arbor Trail, Garden City
Jacobs, Howard....12730 W. McNichols Rd., Detroit 35
Jacobson, Lyle F.....645 Mullett, Detroit 26
Jacobson, Samuel D.....Wayne Co. Gen. Hosp., Eloise
Jacobus, Wayne N...21535 Kingsville Dr. Hwy., Detroit 36
Jaeger, Grove A.....11711 Minden, Detroit 5
Jaekel, Clarence N.....1086 E. Grand Blvd., Detroit 7

Jaffar, Donald J.....5057 Woodward Ave., Detroit 2
Jaffe, Harold W.....701 D. Whitney Bldg., Detroit 26
Jaffe, Jacob.....2211 Woodward Ave., Detroit 1
Jaffe, Julius L.....7463 Harper Ave., Detroit 13
Jaffe, Louis.....18662 Muirland, Detroit 21
Jahsman, Wm. E. (R)....2799 W. Grand Blvd., Detroit 2
Jamieson, Thos. J.....1310 Warwick, Lincoln Park
Janicki, Natalia J.....Eloise Hosp., Eloise
Jarre, Hans A.....4160 John R St., Detroit 1
Jarsen, Frank J.....817 Beechmont St., Dearborn
Jarvis, Harold F.....14066 Linnhurst, Detroit 5
Jaynes, Richard V.....29901 Ford Rd., Garden City
Jeffries, Benj.....16321 Mack Ave., Detroit 24
Jend, Wm., Jr.....1365 Cass Ave., Detroit 26
Jend, Wm. J. (L).....3598 Mitchell Ave., Detroit 17
Jenkins, Elwood A.....1102 David Whitney, Detroit 26
Jenkins, Sidney B.....2617 W. Grand Blvd., Detroit 8
Jennings, Chas. G.....14827 E. Jefferson, Detroit 15
Jensen, Viggo W.....532 Lincoln Rd., G.P., Detroit 30
Jentgen, Chas. J. (L).....22101 Moross Rd., Detroit 36
Jeremias, Robert C.....90 Moss Ave., Highland Park 3
Jewell, F. C.....159 Kercheval Ave., G.P., Detroit 36
Jewell, John S.....2021 Monroe, Suite 23, Dearborn
Jocz, Marion W...945 Trombley Rd., G.P.P., Detroit 30
Jodar, Emery O.....15760 Mack Ave., Detroit 24
Jodar, Loyal W.....19515 Mack, Grosse Pointe
John, Hubert R.....5057 Woodward Ave., Detroit 2
Johnson, Aran S.....23106 Edsel Ford, St. Clair Shores
Johnson, David S.....536 Vinewood, Birmingham
Johnson, Gage.....7647 Linwood, Detroit 6
Johnson, Homer L.....2799 W. Grand Blvd., Detroit 2
Johnson, John F.....1401 Rivard, Detroit 7
Johnson, Ralph A.....7815 E. Jefferson Ave., Detroit 14
Johnson, Simon O.....Cadillac Sq. Bldg., Detroit 26
Johnson, Thos. D.....20526 Grand River, Detroit 19
Johnson, Verne E.....2051 Monroe Ave., Dearborn
Johnson, Vernon P...21327 Harper Ave., St. Clair Shores
Johnson, Vincent C.....345 Lodge Dr., Detroit 14
Johnson, Wilbur E.....13626 E. 7 Mile Rd., Detroit 5
Johnson, Wm. H. M. (A)....4936 Cecil Ave., Detroit 10
Johnston, Chas. G.....1401 Rivard St., Detroit 7
Johnston, Everett V.....3919 John R St., Detroit 1
Johnston, Jos. A.....2799 W. Grand Blvd., Detroit 2
Johnston, John L. (A).....1950 W. McNichols Rd., Detroit 3
Johnston, Wm. E.....3011 W. Grand Blvd., Detroit 2
Johnstone, Benj. I.....18506 Parkside, Detroit 21
Joinville, Euclide V. (L).....28 W. Adams, Detroit 26
Jones, Roy D.....10234 Puritan Ave., Detroit 38
Jones, Wm. J.....8209 Allen Rd., Allen Park
Joos, Thad. H.....20861 Mack, Grosse Pointe Woods
Jordan, Prescott, Jr.....645 Mullett St., Detroit 26
Joyce, Stanley J.....3011 W. Grand Blvd., Detroit 2
Juliar, Benj.....17305 Muirland Ave., Detroit 21
Jury, Donald B.....18800 Wodward Ave., Detroit 3
Kackley, James E.....18514 Mack Ave., Detroit 36
Kaine, Henry D.....3011 W. Grand Blvd., Detroit 2
Kalayjian, Bernard S...14195 Long Acre Rd., Detroit 27
Kalichman, Nathan.....5057 Woodward Ave., Detroit 2
Kallenbach, Rudolf W.....388 Inkster Rd., Inkster
Kallet, Herbert I.....5057 Woodward Ave., Detroit 2
Kallet, Maerit B.....8620 W. McNichols, Detroit 21
Kallman, David.....2351 W. Grand Blvd., Detroit 8
Kallman, Leo.....2351 W. Grand Blvd., Detroit 8
Kallman, Reuben R.....2631 Woodward Ave., Detroit 1
Kamil, Richard S.....12901 W. 7 Mile Rd., Detroit 21
Kamin, Louis E. (A).....3395 Cambridge, Detroit 21
Kaminski, Zeno L. (L).....3510 24th St., Detroit 8
Kamperman, Geo. A. (L)..79 Longfellow Ave., Detroit 2
Kane, Archibald V.....2500 W. Grand Blvd., Detroit 8
Kansa, Selma.....19431 Van Dyke, Detroit 34
Kapetansky, A. J.....1728 Clairmount, Detroit 6
Kapetansky, Nathan J.....4505 Livernois, Detroit 10
Kaplita, Walter A.....60 Fontana Lane, Grosse Pointe Shores
Karch, Saul.....18080 Muirland, Detroit 21
Kasabach, Harry Y.....1553 Woodward Ave., Detroit 26
Kasabach, Vahram Y.....1249 Washington Blvd., Detroit 26
Kashtan, Harry A.....17300 Schaefer, Detroit 35
Kasper, Jos. A.....19953 Clairview Ct., Detroit 36
Kaspor, Albert J.....20901 Moross Rd., Detroit 36
Kass, Arnold.....1150 Griswold St., Detroit 26
Katz, Lawrence.....987 E. Jefferson, Detroit 7
Katz, Martin.....7300 Harding, Taylor
Katzman, Irving S.....2211 Woodward Ave., Detroit 1
Kaufman, Jacob M.....19757 Monte Vista, Detroit 21
Kaufman, Louis W.....10326 W. 7 Mile, Detroit 21
Kaump, Donald H.....2500 W. Grand Blvd., Detroit 8
Kauppinen, Jalo A.....15400 Plymouth Rd., Detroit 27
Kawchak, James.....Ford Motor Co., Dearborn
Kawecki, Lucian....10734 Hart Ave., Huntington Woods
Kawel, Conrad A., Jr.....27459 W. Warren, Garden City
Kazdan, Morris.....4619 Allen Rd., Allen Park
Keating, Thos. F. (L).....20936 W. Grand River Ave., Detroit 19
Kehoe, Henry J.....15252 Gratiot Ave., Detroit 5
Keim, Harther L.....10 Witherell St., Detroit 26
Keith, Kelly.....106 W. Davison Ave., Highland Park 3
Keith, Rachel H. C. B.....8942 Dexter, Detroit 6
Kelley, Frank J.....3919 John R St., Detroit 1
Kelly, A. P., Jr.....Henry Ford Hosp., Detroit 2
Kelly, Edward W., Jr.....156 Harmon St., Detroit 2
Kelly, James E.....Henry Ford Hosp., Detroit 2
Kelly, John J.....21124 Goddard Rd., Dearborn
Kelly, L. J.....14015 Gratiot, Detroit 5
Kelmenson, Victor A.....2035 Glynn Ct., Detroit 6
Kelson, Malcolm J.....1045 Harvard, G.P.P., Detroit 30
Kemler, Walter J.....4045 W. Jefferson Ave., Ecorse 29
Kennary, James M.....4900 Cadieux Rd., Detroit 24
Kennedy, Chas. S. (L).....10 Peterboro St., Detroit 1
Kennedy, Donald J.....1220 Livernois Ave., Detroit 9
Kenning, John C. (A).....1289 Paseo Del Mirodor, Palm Springs, Calif.
Kennison, Warren S.....15800 W. McNichols Rd., Detroit 35
Kernick, Melvin O.....13700 Woodward Ave., Highland Park 3
Kernkamp, Ralph F.....10 Witherall St., Detroit 26
Kerzman, Jos. H.....16631 Woodingham, Detroit 21
Keshishian, Sarkis K. (L).....13544 Woodward Ave., Highland Park
Kessler, Chas.....15105 W. 7 Mile Rd., Detroit 35
Keyes, Eugene C.....4840 Maple Ave., Dearborn
Keyes, John W.....2799 W. Grand Blvd., Detroit 2
Kieffer, Earl.....4490 Dean, Wayne
Killins, Chas. G.....8100 E. Jefferson, Detroit 14
Kimberlin, K. K., Jr.....11110 Morang Dr., Detroit 24
King, Edward D.....270 Rivard Blvd., Grosse Pte. 3
King, Melbourne J.....16021 Warwick Rd., Detroit 23
Kingswood, Roy C.....90 E. Warren Ave., Detroit 1
Kinsley, George.....15105 W. 7 Mile Rd., Detroit 35
Kirschbaum, Harry (A).....19255 Canterbury Rd., Detroit 21
Kirsten, Walter T.....Oakwood Hospital, Dearborn
Kitzmiller, J. L.....15800 W. McNichols Ave., Detroit 35
Klein, Herman.....24030 Marlow St., Oak Park
Klein, Howard A.....1553 Woodward, Detroit 26
Klein, Sander P.....20409 Cheyenne, Detroit 35
Klein, Wm.....17489 Westhampton Dr., Detroit
Kleinman, Shmarya.....16861 Wyoming Ave., Detroit 21
Kliger, David.....18438 Hartwell Ave., Detroit 35
Klimchuk, M. M.....18412 Mack Ave., Detroit 36
Klokke, Karl.....12200 E. Jefferson, Detroit
Klosowski, Jos.....8222 E. Outer Dr., Detroit 13
Klosterman, Paul F.....2900 W. Grand Blvd., Detroit
Klutke, Geo. H. E.....22159 W. Outer Dr., Dearborn
Knaggs, Chas. W. (L).....12244 Gratiot Ave., Detroit 5
Knaggs, Earl J.....3164 Biddle Ave., Wyandotte
Knapp, Byron S.....10909 Jefferson Ave., River Rouge 18
Knapp, Floyd B. (R).....16565 Birwood, Detroit 27
Knapp, Gordon R.....422 W. Goldengate, Detroit 3
Knapp, Wm. L.....20100 W. McNichols Rd., Detroit 19
Knighton, Robert S.....2799 W. Grand Blvd., Detroit 2
Knobloch, Edmund J.....5933 Chene St., Detroit 11
Knoch, Hubert S.....14149 E. Jefferson Ave., Detroit 15
Knox, Ross M.....9 Salliotte Rd., Ecorse 29

Kobernick, Sidney D.....6767 W. Outer Dr., Detroit 35
Koebel, Raymond H.....640 Bedford Lane, Grosse Pte. 3
Koerber, Edward J.....4876 Lakeview Ave., Detroit 15
Kogut, Constantine S.....10627 Puritan, Detroit 38
Kokowicz, Raymond J.....19440 Van Dyke, Detroit 34
Kolman, Isadore I.....987 E. Jefferson Ave., Detroit 17
Koos, Laszlo (M).....2nd Field Hosp., APO 407, New York, New York
Kopel, Jos. O.....10 Peterboro St., Detroit 1
Koran, Valentine L.....5057 Woodward Ave., Detroit 2
Koren, Louis.....3825 Brush St., Detroit 2
Korum, Lyle W.....18585 E. Warren St., Detroit 36
Koschnitzke, H. K.....1221 Lincoln, Lincoln Park
Kossayda, Adam W.....15324 Michigan Ave., Dearborn
Kovach, Emery P.....14149 E. Jefferson St., Detroit 15
Kovan, Dennis D.....16965 Hamilton Ave., Highland Park 3
Kowaleski, John J.....9646 Vine, Allen Park
Kozlinski, Anthony E.....2195 E. Grand Blvd., Detroit 11
Krabbenhoft, K. L.....3825 Brush St., Detroit 1
Kraft, Raymond B.....8531 E. Outer Dr., Detroit 15
Kraft, Ruth M.....655 Hamilton Rd., Birmingham
Krakauer, Bernard..18424 W. McNichols Rd., Detroit 19
Krass, Edward W.....11088 Gratiot Ave., Detroit 5
Kraus, John J.....16840 E. Warren Ave., Detroit 24
Krebs, William T.....16419 E. Warren, Detroit 24
Kreinbring, Geo. E.....14295 E. 4 Mile Rd., Detroit 5
Krenz, Marlin P. (M).....15331 W. Chicago Ave., Detroit 31
Kretzschmar, John C.....8045 E. Jefferson, Detroit 14
Krevsky, David A.....8461 Park Ave., Allen Park
Krevsky, Harold.....8461 Park Ave., Allen Park
Krieg, Earl G.....85 Kerchival Ave., Grosse Pte. Farms
Krieger, Harley L. (R).....11390 Strathmoor, Detroit 27
Krieger, Harvey.....954 Fisher Bldg., Detroit 2
Krieger, Ingeborg.....987 E. Jefferson, Detroit 7
Kritchman, Maurice J.....10 Witherell St., Detroit 26
Kroha, Lawrence A.....15124 Kercheval Ave., Detroit 30
Kroll, H. Harvey V.....7815 E. Jefferson, Detroit 14
Krynicki, Francis X.....15300 W. McNichols Detroit 35
Krystal, Henry.....19210 Coyle, Detroit 19
Kubanek, Joseph L.....23134 Myrtle, Dearborn
Kucmierz, Francis S.....18934 Van Dyke Ave., Detroit 34
Kuehn, Ned N.....20243 Burgess Ave., Detroit 19
Kuhn, Albert A.....90 E. Warren Ave., Detroit 1
Kuhn, Chas. P.....951 E. Lafayette, Detroit 7
Kuhn, Richard F.....1700 Junction Ave., Detroit 9
Kujawski, Walter F.....16840 E. Warren, Detroit
Kullman, Harold J.....Vet. Adm. Hosp., Dearborn
Kurcz, Jos. A.....7433 Michigan Ave., Detroit 10
Kurtz, Irvin J.....2211 Woodward Ave., Detroit 1
Kutsche, John D.....2142 West Rd., Trenton
Kwasiborski, S. A.....2300 Oak St., Wyandotte
Kyle, Wm. V., Jr. (A).....VA Hospital, Tuskegee, Ala.
Kyprie, H. M.....708 Kales Bldg., Detroit

Laberge, James M.....100 Oak, Wyandotte
LaBine, Alfred C.....3044 W. Grand Blvd., Detroit 2
Lackey, Lawrence S.....525 Visger, Ecorse
Laderach, David C.....716 Marquette Dr., Detroit 14
LaFerte, Alfred D. (L)..1001 David Whitney, Detroit 26
Lahood, Michael J...17555 Jas. Couzens Hwy., Detroit 35
Laige, Raymond J.....P.O. Box 1259, Detroit 31
Lake, Robert C.....8445 E. Jefferson, Detroit 14
Lakin, Alan C.....10326 W. 7 Mile Rd., Detroit 21
Lakoff, Charles B.....10234 W. 7 Mile Rd., Detroit 21
Lam, Conrad R.....28130 Westbrook Ct., Farmington
Lamberson, Frank A.....19001 Grand River, Detroit 23
Lammy, James V.....5057 Woodward Ave., Detroit 2
Lampman, Harold H.....3011 W. Grand Blvd., Detroit 2
Landers, James W.....Wayne Co. Gen. Hosp., Eloise
Landers, Maurice B.....275 W. Grand Blvd., Detroit 16
Lang, Ernst F.....280 Cloverly Rd., G.P.F., Detroit 36
Lange, Wm. A.....3919 John R St., Detroit 1
Langston, John D.....1420 St. Antoine St., Detroit 26
Laning, Geo. M. (L)..1553 Woodward Ave., Detroit 26
Lansky, Mandell.....16339 E. Warren, Detroit
Large, Alfred M.....1553 Woodward Ave., Detroit 26
Largo, Donald J.....16717 Warwick, Detroit 19
Larkin, Duane R.....28435 Plymouth, Livonia
Larned, Richard I.....14182 Gratiot Ave., Detroit 5
Larsen, Robert D.....76 W. Adams Ave., Detroit 26
Larson, Chas. J.....12820 Ward St., Wyandotte
Larson, Francine S. (A).....12820 Ward St., Wyandotte
Larsson, Bror H. (L).....3919 John R St., Detroit 1
Lasichak, Andrew G.....76 W. Adams Ave., Detroit 26
Lasley, James W.....5057 Woodward Ave., Detroit 2
Lathrop, Philip L.....8545 Second Blvd., Detroit 2
Latimer, Fredk. R.....28 W. Adams, Detroit 26
Latteier, Karl K.....968 Yarmouth, Birmingham
Lauppe, Edward H.....1551 Woodward Ave., Detroit 26
Lauppe, Fredk. A.....1553 Woodward Ave., Detroit 26
Laura, Albert L.....28876 Minton Ave., Livonia
Laurisin, Eugene.....16554 Muirland, Detroit 21
Lawhead, Nixon R.....7348 Kercheval Ave., Detroit 14
Lawrence, Louis F.....17300 Schaefer Rd., Detroit 35
Lawson, James M.....2605 W. Grand Blvd., Detroit 8
Lawson, John W.....98 Hazelwood Ave., Detroit 2
Lazar, Morton R.....7401 Third Ave., Detroit 2

Leach, David.....3011 W. Grand Blvd., Detroit 2
Leach, Robert B.....1401 Rivard St., Detroit 7
Leacock, Robert C.....440 University Pl., Grosse Pte. 3
Leader, Luther R.....1553 Woodward, Detroit 26
Leaver, L. Ross.....757 Lakewood Ave., Detroit 15
Lebamoff, Alexander T.....7940 Allen Rd., Allen Park
Lechner, Monroe S.....15070 Houston Ave., Detroit 5
Lecklider, A. F. (R)....848 Berkshire Rd., Grosse Pte. 3
Lee, Harry E.....13616 Gratiot Ave., Detroit 5
Lehmann, Robert N.....26029 W. 5 Mile Rd., Detroit 39
Leibinger, Henry R.....2511 Grand River Ave., Detroit 1
Leipsitz, Louis S.....3566 Cass Ave., Detroit 1
Leiter, Forrest C.....22375 Garrison, Dearborn
Leithauser, Daniel J. (L).....18412 Mack, Detroit 36
Leland, Solomon.....6563 Grand River, Detroit 8
Lemley, Clark F.....3011 W. Grand Blvd., Detroit 2
Lemmer, John A.....9300 Mack Ave., Detroit 14
Lemmon, Chas. E.....1553 Woodward Ave., Detroit 26
Lemon, Bruce K.....8259 Meyers Rd., Detroit 28
Lentine, James J.....15831 Mack Ave., Detroit 24
Lenz, Willard R.....418 Moran Rd., G.P.F., Detroit 30
Lepard, Cecil W.....1553 Woodward Ave., Detroit 26
Lepley, Fred O.....1125 Three Mile Dr., Detroit 30
Lerman, Samuel I.....4400 Livernois St., Detroit 10
Lerner, Leonard H.....7310 W. 7 Mile Rd., Detroit 21
Lesesne, John M.....17700 Mack Ave., Grosse Pte. 24
L'Esperance, Simon P. (R)..Rte. 3, Woodslee, Ont., Can.
Lessem, David.....12759 Vernon, Huntington Woods
Leszynski, Jos. S.....10 Peterboro St., Detroit 1
Leucutia, Traian....X-Ray Dept., Harper Hosp., Detroit 1
Levagood, Floyd B.....14056 Artesian, Detroit 23
Levant, Arthur B.....15715 E. Warren, Detroit 24
Levenson, Malcolm L.....24554 Rensselaer, Oak Park 37
Leventer, Ira.....8844 Joy Rd., Detroit 4
Levin, David M.....15121 W. McNichols Rd., Detroit 35
Levin, Herbert G.....17300 Schaefer, Detroit 35
Levin, M. Mitchel.....5057 Woodward Ave., Detroit 2
Levin, Samuel J.....3011 W. Grand, Detroit 2
Levine, Edward E...25854 Salem Rd., Huntington Woods
Levine, Sydney S.....8233 W. Chicago Blvd., Detroit 4
Levitt, Irving.....14624 E. 7 Mile Rd., Detroit 5
Levitt, Nathan.....76 W. Adams Ave., Detroit 26
Levy, David B.....17320 Livernois, Detroit 21
Levy, Marvin B.....23200 Woodward Ave., Ferndale
Levy, Stanley H.....7441 W. 7 Mile Rd., Detroit 21
Lewin, Harry.....2457 Woodward Ave., Detroit 1
Lewis, Benjamin M.....1401 Rivard, Detroit 7
Lewis, Chas. T.....5050 Joy Rd., Detroit 4
Lewis, J. Hugh.....2956 Biddle Ave., Wyandotte
Lewis, Lee A.....2730 E. Jefferson Ave., Detroit 7
Lewis, Robert H.....14807 W. McNichols, Detroit 35
Lewis, Wilfrid J.....10 Peterboro St., Detroit 1

Libbrecht, Robert V.....6540 Park Ave., Allen Park
Lichter, Max L.....2900 Oakwood Blvd., Melvindale
Liddicoat, Arthur G.....18300 Bretton Dr., Detroit 23
Lieberman, Barnard L...19212 Woodward Ave., Detroit 3
Lightbody, James.....1553 Woodward Ave., Detroit 26
Lignell, Rudolph W.....16259 James Couzens, Detroit 21

Lilly, Chas. J.....2950 Puritan Ave., Detroit 38
Lincoln, Abraham R. (A)....1337 Lakewood, Detroit 15
Linkner, Leonard S.....12944 LaSalle Lane, Huntington Woods
Lipinski, Stanley L.....7540 Michigan Ave., Detroit 10
Lipkin, Ezra.....5715 Michigan Ave., Detroit 10
Lipnik, Carl E.....31619 Plymouth Rd., Livonia
Lipnik, Morris J.....15101 W. 7 Mile Rd., Detroit 35
Lipschutz, Louis S.....19750 Chesterfield Rd., Detroit 21
Lipson, Channing T.....18700 Woodingham Dr., Detroit
Lipson, Madeline L.....7401 Third Ave., Detroit 2
Lipton, Raymond F.....10 Peterboro St., Detroit 1
Litsky, Abraham D.....1183 E. Grand Blvd., Detroit 11
Little, James W.....3855 Shallow Brook, Bloomfield Hills
Livingood, Clarence S.....2950 Iroquois, Detroit 14
Lockhart, Edward C.....4724 Tireman, Detroit 4
Lockwood, B. C. (R)....1553 Woodward Ave., Detroit 26
Lofstrom, James E.....1420 St. Antoine St., Detroit 26
Logrippo, Annie B.....Henry Ford Hosp., Detroit 2
Long, Earl C.....13995 Rutland Ave., Detroit 27
Long, John J.....12421 Monica St., Detroit 4
Longo, Salvatore.....468 Cadieux, Detroit 30
Lookanoff, V. A.....369 Glendale Ave., Highland Park 3
Loranger, C. B. P...888 Lakeshore Rd., G.P.S., Detroit 36
Loranger, Guy L.....34 Moross Rd., G.P.F., Detroit 30
Lorber, Jos. H.....16558 North Lawn, Detroit 21
Lorentzen, Edwin H...11702 Grand River Ave., Detroit 4
Lovas, Wm. S.....6354 W. Fort St., Detroit 9
Love, Donald M.....1060A Van Dyke, Detroit 14
Love, W. Thos.....231 E. Warren Ave., Detroit 1
Lowe, Adolf W.....3338 W. Davison Ave., Detroit 38
Lowe, Townsend G.....218 Kirby, Detroit
Lowinger, Paul L.....951 E. Lafayette, Detroit 7
Lowrie, Wm. L.....2799 W. Grand Blvd., Detroit 2
Lublin, Ann.....15041 E. 7 Mile Rd., Detroit 5
Luby, Elliot D.....20138 Warrington, Detroit 21
Lui, Alfred H. F.....Wayne Co. Gen. Hosp., Eloise
Lukas John R. .....(No Address)
Lumpkin, John G., Jr.....243 E. Warren Ave., Detroit 1
Lutz, Earl F.....3044 W. Grand Blvd., Detroit 2
Lutz, Sherwin J.....19355 Wisconsin Ave., Detroit 21
Luzadre, John H.....18430 Mack Ave., Detroit 36
Lynn, David H.....Lynn Hospital, Lincoln Park
Lynn, Harvey D.....22159 W. Outer Dr., Dearborn
Lytle, Robert P.....10 Peterboro St., Detroit 1
Maben, Hayward C., Jr. (A).....9342 Oakland Ave., Detroit 11
Mabley, John D.....1037 David Whitney, Detroit 26
MacCraken, F. L. (A).....16753 St. Mary's, Detroit 35
MacDougall, Orrin P.....13700 Woodward Ave., Detroit 3
MacFarlane, H. W.....1553 Woodward Ave., Detroit 26
MacGregor, Wm. W. (L).....6320 W. Surrey St., Birmingham
Mack, Harold C.....3011 W. Grand Blvd., Detroit 2
MacKenzie, Frank M. (R).....Box 326, c/o Mr. Timms, Sarnia, Ont., Canada
MacKenzie, John W.....289 Rivard Blvd., Grosse Pte. 3
MacKersie, Wm. G.....18205 Roselawn Ave., Detroit 21
Mackey, George S.....Henry Ford Hosp., Detroit 2
MacLeod, Chas. W.....16116 W. McNichols, Detroit 35
MacMillan, Francis B...1553 Woodward Ave., Detroit 26
MacPherson, K. C.....8102 E. Jefferson, Detroit 14
MacQueen, Malcolm D...660 Woodward Ave., Detroit 26
Maczewski, John E.....9535 Jos. Campau Ave., Hamtramck 12
Mader, Ivan J.....Wayne State Univ., Detroit 7
Magnell, Ralph C.....8825 Puritan Ave., Detroit 21
Maguire, Clarence E.....1553 Woodward Ave., Detroit 26
Mahlin, Murray S.....16820 Greenfield Ave., Detroit 35
Mahoney, Hugh M.....1553 Woodward Ave., Detroit 26
Mahoney, William F. (A)....68242 Snow Rd., Dearborn
Maibauer, Fredk. P.....2966 Biddle Ave., Wyandotte
Maino, Linus J.....2501 W. Grand Blvd., Detroit 8
Mainwaring, Rosser L.....1910 Russell, Dearborn
Maire, Edward D...15224 E. Jefferson, G.P.P., Detroit 30
Maitland, Ruth J.....1365 Cass St., Detroit 26
Majzoub, Ahmad J.....3334 Fort, Lincoln Park
Malik, Nur M.....585 E. Grand Blvd., Detroit 7
Malina, Stephen.....1601 Kirkway Dr., Rte. 3, Bloomfield Hills
Malone, John M.....20446 Freeland Ave., Detroit 35
Maloney, John A.....670 Maccabees Bldg., Detroit 2
Maltzer, Jos. H.....950 E. State Fair, Detroit 3
Mancuso, Vincent S. (A).....962 E. Grand Blvd., Detroit 7
Mandiberg, Jack N.....12700 W. 7 Mile Rd., Detroit 35
Mann, Andrew D.....20901 Moross, Detroit 36
Manning, Morey H.....950 E. State Fair Ave., Detroit 3
Mapletoft, Kenneth E.....420 Mohawk, Dearborn
Marecki, Vincent J.....7068 Michigan Ave., Detroit 10
Margules, Saul Z.....12408 Van Dyke, Detroit 34
Marinus, Carleton J.....1553 Woodward Ave., Detroit 26
Mark, Jerome.....76 W. Adams Ave., Detroit 26
Markey, Alexander P.....14853 Michigan Ave., Dearborn
Markey, Frank R.....17174 Fairfield, Detroit 21
Markoe, Rupert C. L.....4102 Brush St., Detroit 1
Marks, Ben.....232 W. Grand River Ave., Detroit 26
Marks, Bert W.....8250 Lincoln Dr., Huntington Woods
Marsh, Alton R.....15596 Woodland Dr., Dearborn
Marshall, James R...14528 E. Jefferson Ave., Detroit 15
Marshall, J. R., Jr.....20160 Mack Ave., Detroit 36
Martin, Elbert A. (L)..1553 Woodward Ave., Detroit 26
Martin, J. B., Jr.....449 E. Elizabeth St., Detroit 1
Martin, Lyndle R.....2000 Second Blvd., Detroit 26
Martin, Marion T.....9122 W. Fort St., Detroit 9
Martin, Peter A.....17185 Muirland, Detroit 21
Martin, Walter.....17523 Dequinder, Detroit 12
Martin, Wilbur C.....7440 W. Jefferson St., Detroit 17
Martineau, Perry C.....16709 Glastonbury, Detroit 19
Martinez, Pedro O.....1439 Bagley Ave., Detroit 16
Martmer, Edgar E.....693 Washington Rd., Grosse Pte. 3
Marwil, Thos. B.....16965 Hamilton St., Detroit 3
Mateer, John G.....2799 W. Grand Blvd., Detroit 2
Matthews, Burton V.....2514 Biddle St., Wyandotte
Mattman, Paul E.....1500 Seminole, Detroit 14
Mattson, Theodore M.....3919 John R St., Detroit 1
Mauthe, Harry G.....9272 Idaho, Livonia
Maxwell, James H.....2415 W. Grand Blvd., Detroit 8
May, Fredk. T.....76 W. Adams Ave., Detroit 26
Mayer, Emil V. (L).....16525 Woodward Ave., Detroit 3
Maynard, Fredk. M.....14846 Harrison, Allen Park
McAlonan, William T.....10 Peterboro St., Detroit 1
McAlpine, Gordon S.....3011 W. Grand Blvd., Detroit 2
McBryan, Thos. J.....Grace Hosp., Detroit
McCadie, James H.....13700 Woodward Ave., Highland Park 3
McCandless, Virginia.....22276 Garrison, Dearborn
McCaughey, R. S.....Wayne State Univ., Detroit 7
McClaughry, Robert I.....2500 W. Grand Blvd., Detroit 8
McClellan, Robert J.....16345 W. McNichols, Detroit 35
McClelland, Rachel L.....33026 5 Mile Rd., Livonia
McClendon, James J.....503 E. Warren Ave., Detroit 1
McClintock, John J.....16151 Schoolcraft Ave., Detroit 27
McClure, Robert W.....9111 E. Outer Dr., Detroit 13
McClure, Wm. R. (L)....Box 1498, Boynton Beach, Fla.
McCole, Cornelius E.....Henry Ford Hosp., Detroit 2
McColl, Chas. W.....2826 Biddle St., Wyandotte
McColl, Clarke M.....2799 W. Grand Blvd., Detroit 2
McColl, Kenneth M.....20250 Mack Ave., Detroit 36
McCollum, E. Bert.....1553 Woodward Ave., Detroit 26
McCord, Carey P. (L).....School of Public Health, Ann Arbor
McCormick, Colin C.....13530 Michigan Ave., Dearborn
McCullough, L. E.....1553 Woodward Ave., Detroit 26
McDonald, Allan W. (L).....15015 Ward, Detroit 27
McDonald, Angus L.....13856 Gratiot Ave., Detroit 5
McDonald, John R.....Harper Hosp., Detroit 6
McDonald, Wm. G.....15600 Michigan Ave., Dearborn
McDowell, Douglas B.....Wayne Co. Gen. Hosp., Eloise
McEvitt, Wm. G.....1140 W. Boston Blvd., Detroit 2
McFadyen, Hugh A. (L).....10 Peterboro St., Detroit 1
McGhee, Richard S.....10015 W. 8 Mile Rd., Detroit 21
McGillicuddy, W. E. (R)..76 W. Adams Ave., Detroit 26
McGlaughlin, N. D.....2312 Biddle Ave., Wyandotte
McGough, Jos. M.....18716 Grand River, Detroit 23
McGuire, John F.....10 Cherry Hill Ct., Dearborn 7

McIntosh, Robert D.....6307 W. Fort St., Detroit 9
McIntyre, J. B.....2018 N. Telegraph Rd., Dearborn
McIntyre, Wm. B.....1145 D. Whitney Bldg., Detroit 26
McKean, G. Thos.....1553 Woodward Ave., Detroit 26
McKean, Richard M.....1553 Woodward Ave., Detroit 26
McKeever, Geo. E.....5237 Oakman Blvd., Dearborn
McKenna, Chas. J.....14618 E. 7 Mile, Detroit 5
McKinnon, John D. (R).....106 W. Davison Ave., Highland Park 3
McKnight, R. E.....10030 W. McNichols Rd., Detroit 21
McLane, Harriet I. E. (L)..4350 Oregon Ave., Detroit 4
McLean, Brita R.....1365 Cass, Detroit 26
McLean, Don W.....3011 W. Grand Blvd., Detroit 2
McLean, Donald C.....10 Peterboro, Detroit 1
McNamara, Joseph M.....19045 Farmington Rd., Livonia
McNeill, Roger F.....119 Kercheval, Grosse Pointe
McNichol, Larry J.....20032 W. McNichols, Detroit 19
McPhee, Roderick T.....987 E. Jefferson, Detroit 7
McPherson, Robert J.....12626 Meyers Rd., Detroit 27
McQuiggan, Mark R.....700 Seward, Detroit 2
McQuiggan, Thelma H.....Wayne Co. Gen. Hosp., Eloise
Meek, Stuart F.....13020 Kilbourne, Detroit 13
Melander, L. W., Jr...1229 D. Whitney Bldg., Detroit 26
Mellen, Hyman S.....16800 Greenfield, Detroit 35
Mellinger, Raymond C.....959 Pemberton, Grosse Pointe
Melnik, Maxim P.....3011 W. Grand Blvd., Detroit 2
Menagh, Frank R.....4010 Columbus Ave., Detroit 4
Mendelssohn, Reuben J.....14427 Mack Ave., Detroit 15
Mendians, Edgar V.....Chrysler Corp., Detroit
Mendoza, Samuel.....6356 Michigan, Detroit
Menton, Norman J.....17201 W. McNichols, Detroit 35
Merkel, Chas. C.....85 Kercheval Ave., G.P.F., Detroit 30
Merkle, Karl.....530 N. Telegraph, Dearborn
Merrill, C. R., Jr.....369 Glendale, Detroit 3
Merritt, Earl G.....10 Peterboro St., Detroit 1
Mersky, Charlotte I. (A).....32215 Queensboro, Farmington
Metes, John S.....1261 Fair Holme Rd., G.P.W., Detroit 36
Metzger, Harry C...25504 Wareham, Huntington Woods
Meyer, Eugene.....2900 S. Fort St., Detroit 17
Meyer, John S.....Wayne State Univ., Detroit 7
Meyer, Kenneth R.....Oakwood Hosp., Dearborn
Meyers, Marjorie P.....5320 John R St., Detroit 2
Meyers, Maurice P.....7411 Third Ave., Detroit 2
Meyers, Sidney S.....20861 Mack, Detroit
Meyers, Solomon G.....5057 Woodward Ave., Detroit 2
Michael, Michael J.....938 Renaud Rd., Detroit 36
Michels, Julius (R).....9424 Mack Ave., Detroit 14
Mihay, Benjamin.....14359 Michigan Ave., Dearborn
Mikesell, W. B., Jr.....21124 Goddard Rd., Dearborn
Millard, Glenn E.....2900 W. Grand Blvd., Detroit 2
Miller, Daniel H.....8011 W. Verner Hwy., Detroit 9
Miller, Elmer B.....20 Oxford Rd., Pleasant Ridge
Miller, Jacob J.....20131 James Couzens, Detroit 35
Miller, J. Martin.....2799 W. Grand Blvd., Detroit 2
Miller, Karl L.....1553 Woodward Ave., Detroit 26
Miller, Michael M.....10514 E. Jefferson, Detroit 14
Miller, Myron H...27330 Southfield Rd., Lathrup Village
Miller, Oscar W.....Fleetwood Plt. FBD, GMC, Detroit
Miller, Thos. H.....1553 Woodward Ave., Detroit 26
Miller, Wm. E. (L).....10 Peterboro, Detroit 1
Miller, William J.....5649 Inkster Rd., Garden City
Mills, Clinton C.....16191 Jas. Couzens Hwy., Detroit 21
Milton, Samuel B.....600 Palmerston, River Rouge
Mintz, Edward I.....7401 Third Ave., Detroit 2
Mintz, Morris J.....16895 Livernois St., Detroit 21
Mishelevich, Sophie.....4651 E. 9 Mile Rd., Van Dyke
Miskinis, Martyna.....393 W. Grand Blvd., Detroit 16
Missavage, Edward, Jr.....Wayne Co. Gen. Hosp., Eloise
Mitchell, A. W.....12000 Visger, Detroit
Mitchell, C. Leslie....34 Hendrie Lane, G.P.F., Detroit 36
Mitchell, Darnell P.....7713 Oakland Ave., Detroit 11
Mitchell, Ralston S.....242 E. Warren Ave., Detroit 1
Moehlig, Robert C.....3001 W. Grand Blvd., Detroit 2
Mogill, Geo.....3150 Second Blvd., Detroit 1
Moisides, Vasil P.....28 W. Adams Ave., Detroit 26
Moll, Clarence D.....10 Peterboro St., Detroit 1
Molner, Jos. G.....334 Bates St., Detroit 26
Molnar, Stephen K.....4525 S. Telegraph Rd., Dearborn
Momcilovich, Boxidar..2241 Huron River Dr., Rockwood
Mond, Edward.....10 Witherell St., Detroit 26
Monson, Robert C.....16404 E. Warren Ave., Detroit 24
Montante, Jos. R.....18715 Bretton Dr., Detroit 23
Montgomery, Wm. C.....25717 Coolidge, Oak Park 37
Monto, Raymond W.....2799 W. Grand Blvd., Detroit 2
Moore, John W., Jr.....8425 W. 8 Mile Rd., Detroit 21
Moore, Warren R.....1553 Woodward Ave., Detroit 26
Mopper, Coleman.....14633 E. 7 Mile Rd.. Detroit 5
Morand, Louis J. (A)..1553 Woodward Ave., Detroit 26
Morgan, Donald N.....1553 Woodward Ave., Detroit 26
Moriarty, Geo. J.....3011 W. Grand Blvd., Detroit 2
Moritz, Henry C.....1553 Woodward Ave., Detroit 26
Morley, Arthur R.....15753 Promenade, Allen Park
Morley, Harold V.....970 Fisher Bldg., Detroit 2
Morley, James A.....10514 Plymouth Ave., Detroit 4
Moroun, Sheffick J.....8045 E. Jefferson Ave., Detroit 14
Morris, Harold L.....3001 W. Grand Blvd., Detroit 2
Morse, Plinn F. (L).....3825 Brush St., Detroit 1
Morton, David G.....19445 Plymouth, Detroit 28
Morton, John B. (L).....90 E. Warren Ave., Detroit 1
Mosee, Wm. J.....9219 Dexter, Detroit
Moseley, Fredk. L.....2561 S. Schaefer, Detroit
Mosen, Max M.....8015 Harper Ave., Detroit 13
Moses, John W.....864 Fisher Bldg., Detroit
Moss, Ervin B.....1907 Pingree Ave., Detroit 6
Moss, Nathan H.....2847 Trumbull, Detroit 16
Moss, Selma S.....18254 Livernois Ave., Detroit 21
Mossman, John D.....18914 Warrington Dr., Detroit 21
Moszcznski, B. J.....1113 David Whitney, Detroit 26
Mott, Carlin P.....2395 W. Grand Blvd., Detroit 8
Mott, Fredk. D.....8143 E. Jefferson, Detroit 14
Mucasey, John.....21415 W. 8 Mile Rd., Detroit
Mullen, Jos. R.....19003 Ecorse Rd., Allen Park
Munson, Henry T.....18350 Mack, Grosse Pte. 36
Murphy, Donald J.....10 Peterboro St., Detroit 1
Murphy, Eugene J.....18500 Joy Rd., Detroit 28
Murphy, John M.....60 Lewiston Rd., G.P.F., Detroit 36
Murphy, Robert T. (M).....3276 Van Aken, Cleveland 20, Ohio
Murphy, Scipio G.....603 E. Forest, Detroit 1
Murphy, Wm. M.....10500 E. Warren Ave., Detroit 13
Murray, Gordon M.....9901 Whittier, Detroit 24
Murray, Robert J.....2299 West Rd., Trenton
Murray, Thomas H.....19345 W. McNichols, Detroit 19
Murray, Wm. A.....11841 Ohio Ave., Detroit 4
Muske, Paul H.....5605 Michigan Ave., Detroit 10
Myers, Daniel W...1150 Bedford Rd., G.P.P., Detroit 30
Myers, Gordon B.....789 Westchester Rd., Detroit 30
Nagle, John W.....114 Maple St., Wyandotte
Nahigian, Russell.....17371 Annchester Ave., Detroit 19
Nahoum, Antoine.....2201 E. Jefferson, Detroit 7
Naud, Henry J.....18456 Grand River Ave., Detroit 23
Navori, Cornelius A.....3516 Fort St., Lincoln Park
Naylor, Arthur H.....10033 Tireman, Dearborn
Neeb, Walter G.....16840 E. Warren St., Detroit 24
Nehra, John M.....18514 Mack Ave., Detroit 36
Neill, Edwin J.....8045 E. Jefferson St., Detroit 14
Nelson, Darwin M.....63 Ridge Rd., Detroit 36
Nelson, Harry M.....3001 W. Grand Blvd., Detroit 2
Nelson, Norman A.....Wayne Co. Gen. Hosp., Eloise
Nelson, Victor E.....3025 Crooks Rd., Royal Oak
Newby, Burns G.....1104 Maccabees Bldg., Detroit 2
Newman, Ernest.....17371 Evergreen St., Detroit 19
Newman, Geo. F.....41001 W. 7 Mile Rd., Northville
Newman, Max K.....16861 Wyoming Ave., Detroit 21
Nickel, Warren O.....861 Monroe, Dearborn
Nickels, Albert W.....3011 W. Grand Blvd., Detroit 2
Neilson, Donald R.....1006 Zephyr, Ypsilanti
Nielsen, Aage E.....10 Peterboro St., Detroit 1
Nigro, Norman D.....10 Peterboro St., Detroit 1
Nill, John B.....15001 E. Warren, Detroit 24
Nill, Wm. F.....15001 E. Warren, Detroit 24
Noble, Wm. C.....4045 W. Jefferson, Ecorse 29
Noe, Jos. T., Jr.....Wyandotte Chem. Corp., Wyandotte
Nolan, Bernard E.....5460 Schaefer Rd., Dearborn

Nolting, Wilfred S. H.....15850 E. Warren Ave., Detroit 24
Norcott, Edith G. S.....16350 Mack Ave., Grosse Pte. 24
Northcross, David C.....668 Winder St., Detroit 1
Norton, Arthur B.....5057 Woodward Ave., Detroit 2
Norton, Chas. S. (L).....3503 14th Ave., Detroit 8
Noshay, Wm. C.....2799 W. Grand Blvd., Detroit 2
Novack, Richard L. (A)..9928 Farmington Rd., Livonia
Novy, Robert L.....858 Fisher Bldg., Detroit 2
Nunn, James W.....106 W. Davison, Detroit 3
Nyboer, Jan (A).....3825 Brush St., Detroit 1

O'Brien, Edw. J. (L)..1553 Woodward Ave., Detroit 26
O'Brien, Geo. M.....2501 W. Grand Blvd., Detroit 8
Obushkevich, Leon S.....15720 W. Warren, Detroit 28
O'Connor, Kathryn L.....17711 Schoolcraft, Detroit 27
O'Donnell, Dayton H.....2501 W. Grand Blvd., Detroit 8
Oetting, Edward M.....2923 Iroquois Ave., Detroit 14
O'Hare, Wm. J.....24616 Winona, Dearborn 7
Ohmart, Galen B.....8721 E. Jefferson Ave., Detroit 14
Ohrt, Harold F. (A).....285 E. Grand Blvd., Detroit 7
Okun, Milton H.....3261 Sherbourne Rd., Detroit 21
Olejniczak, Stanley.....Wayne Co. Gen. Hosp., Eloise
Olen, Alex.....13100 Harper Ave., Detroit 13
O'Linn, Francis P.....3011 W. Grand Blvd., Detroit 2
Olmsted, Geo. S...27305 Southfield Rd., Lathrop Village
Olson, Avis M.....Mt. Carmel Mercy Hosp., Detroit 35
Olson, James A.....28 W. Adams Ave., Detroit 26
Oman, Cyrus F.....12608 Wyoming Ave., Detroit 38
Oppenheim, Jos. M.....3011 W. Grand Blvd., Detroit 2
Orecklin, Leo.....5057 Woodward Ave., Detroit 2
Organ, Fred W. (L)....10304 Woodward Ave., Detroit 2
Ormond, Robert S.....1951 Monroe St., Dearborn
Ornstein, Chas.....19504 Kelly, Detroit 24
O'Rourke, Paul V.....17725 Manderson Rd., Detroit 3
O'Rourke, Randall M.....7384 12th St., Detroit 6
Osius, Eugene A.....1553 Woodward Ave., Detroit 26
O'Sullivan, Girardin S.....18129 Sunnybrook Ave., Birmingham
Otlewski, Eugene A.....19647 Joy Rd., Detroit 28
Ottaway, John P.....18226 Mack Ave., Grosse Pte. Farms
Owen, Clarence I.....1544 Vinewood Ave., Detroit 16

Palmer, Alice E.....3919 John R St., Detroit 1
Palmer, Milton R.....7624 Dexter Blvd., Detroit 6
Palmisano, I. J.....25447 Plymouth Rd., Detroit 28
Pangburn, Leon E. (L).....12897 Woodward, Detroit 3
Panic, Stephen M.....1001 W. 7 Mile, Detroit 3
Parcells, Frank H.....1014 Buckingham, Grosse Pte. 3
Parfanowycz, S. N.....7508 Michigan Ave., Detroit 10
Park, Charles W.....8414 Salem Lane, Dearborn
Parker, Albert R.....3720 Washington St., Wayne
Parker, Benj. R.....19635 Canterbury, Detroit 21
Parnell, John W.....1297 Lochmoor Blvd., Detroit 36
Parr, Robert W.....3044 W. Grand Blvd., Detroit 2
Parrish, Rufus H.....2610 Starlevant, Detroit
Pasternacki, N. T.....6203 Chene St., Detroit 11
Pastorius, Melvin K. (A).....25737 Fortuna, Roseville
Paul, Lloyd J.....25321 Fenkell, Detroit 23
Pawlowski, Jerome I.....2009 E. Grand Blvd., Detroit 11
Payne, Eugene H.....656 Van Dyke St., Detroit 14
Payne, Walter A., Jr.....691 Seward Ave., Detroit 2
Paysner, Harry A.....13700 Woodward Ave., Highland Park 3
Peabody, Chas. W. (R).....25 Riverside Dr., Barrington, R. I.
Pearce, Arthur J.....15317 Piedmont St., Detroit 23
Pearlman, Jack.....25860 Concord, Huntington Woods
Pearse, Harry A.....3001 W. Grand Blvd., Detroit 2
Peat, Alexander C.....1350 Devonshire Rd., Grosse Pointe Park
Pedersen, Herbert E.....381 Golfcrest Dr., Dearborn
Peggs, Geo. F.....5419 Livernois Ave., Detroit 10
Pendy, Geo. V.....1001 David Whitney, Detroit 26
Pendy, John M.....1001 David Whitney Bldg., Detroit 26
Penner, David A. (A).....Receiving Hosp., Detroit
Pensler, Leslie.....8844 Joy Rd., Detroit 4
Pensler, Meyer.....8844 Joy Rd., Detroit 4
Percy, Donald F.....17320 W. McNichols, Detroit 35
Perdue, Grace M.....3011 W. Grand Blvd., Detroit 2
Perkin, Frank S.....3011 W. Grand Blvd., Detroit 2
Perlis, Hyman L.....5057 Woodward Ave., Detroit 2
Perlis, Marvin S.....952 Maccabees Bldg., Detroit 2
Perrin, Eugene V. (A).....4305 Russell Ave., Mt. Rainier, Md.
Peterman, Earl A.....13700 Woodward, Highland Park 3
Peters, Wm. R.....12400 E. Seven Mile Rd., Detroit 5
Peterson, Gustav.....2860 Clark Ave., Detroit 32
Peterson, Robert A. (A).....17581 Prest, Detroit 24
Petix, Samuel C.....19207 Schaefer, Detroit 35
Petoskey, Edward A.....7321 Whittaker, Detroit 9
Petrick, Thos. J.....1221 Lincoln Rd., Lincoln Park
Petrini, Mario A.....1067 Fisher Bldg., Detroit 2
Petty, Thos A.....1204 Yorkshire Rd. G.P.P., Detroit 30
Peven, Philip S.....19565 Roslyn Rd., Detroit 21
Pevin, Pauline.....18709 Meyers Rd., Detroit 35
Pfeiffer, Rudolph L. (L)....469 E. Grand Blvd., Detroit 7
Phillips, Burton E.....7600 John R. St., Detroit 2
Picard, Jos. D.....5237 Oakman Blvd., Dearborn
Piccone, Louisa I.....10605 W. Warren St., Dearborn
Pichette, J. Walton.....15112 Michigan Ave., Dearborn
Pickard, Orlando W.....14300 W. McNichols, Detroit 35
Pierce, James M., Jr.....Wayne St. University, Detroit 7
Pietraszewski, A. W.....10338 Joseph Campau Ave., Detroit 12
Pinckard, Karl G.....932 Mason St., Dearborn
Pink, Rose M.....11413 Jos. Campau, Detroit 12
Pinney, Lyman J. (L).....28 W. Adams, Detroit 26
Pino, Ralph H.....1553 Woodward Ave., Detroit 26
Piper, Ralph R.....1495 McKinstry, Detroit 9
Pittman, John E.....1553 Woodward Ave., Detroit 26
Platz, Carol K.....11368 Kelly Rd., Detroit 24
Plavnick, Herman M.....13300 Fenkell, Detroit 27
Pliskow, Harold....10730 W. Seven Mile Rd., Detroit 21
Plotnick, Harold.....17554 Indiana, Detroit 21
Plous, Eugene I.....1030 Fisher Bldg., Detroit 2
Podolsky, Harold M.....3755 Fort, Lincoln Park
Polentz, Chas. P.....Medical Concourse N.C., Detroit 35
Pollack, Jerome L.....29000 S. Fort St., Detroit 17
Pollack, John J.....18200 Wyoming, Detroit 21
Pollard, R. J.....Grace Hosp., Detroit 1
Pollens, Louis S.....12730 W. McNichols Rd., Detroit 35
Pollina, Clement J.....21501 Harper, St. Clair Shores
Ponka, Jos. L.....2799 W. Grand Blvd., Detroit 2
Pool, Walter D.....20901 Moross Rd., Detroit 36
Poos, Edgar E.....3001 W. Grand Blvd., Detroit 2
Porretta, Anthony C.....5809 Yorkshire, Detroit 24
Porretta, Chas. A.....3919 John R St., Detroit 1
Porretta, Francis S.....8156 Normile Ave., Detroit 4
Porter, Frederick G.....27459 Five Mile Rd., Livonia
Portnoy, Harry.....4253 Leslie, Detroit 38
Posch, Jos. L.....853 Brys Dr. N.G.P.W., Detroit 36
Posner, Irving.....18111 Muirland Ave., Detroit 21
Potts, Elihue B.....8943 Twelfth St., Detroit 6
Pratt, Lawrence A.....15621 Windmill Pte. Dr., Grosse Pointe Park
Pratt, Jean P. (L).....18910 Fairway Dr., Detroit 21
Preston, C. W.....4602 Brush St., Detroit
Preston, Ruth E.....3011 W. Grand Blvd., Detroit 2
Price, Alfred H.....18605 Birchcrest Dr., Detroit 21
Price, Alvin E.....1553 Woodward Ave., Detroit 26
Priest, Robt. J.....9312 Faust Ave., Detroit 28
Prince, Addison E.....8942 Dexter, Detroit 6
Prisbe, Edward J.....16603 Plymouth Rd., Detroit 27
Priver, Julien.....6741 W. Outer Dr., Detroit 35
Procailo, Alexander B.....29901 Ford Rd., Garden City
Proctor, Bruce.....1553 Woodward, Detroit 26
Prokop, Frank P.....7517 Appoline, Dearborn
Prokopovich, V.....6438 Van Dyke, Detroit 13
Proud, Robert H.....26151 Huron River Dr., Flat Rock
Proud, Russel F.....26151 Huron River Dr., Flat Rock
Prust, Frank W.....1536 David Whitney Bldg., Detroit 26
Pugh, Howard C.....1553 Woodward Ave., Detroit 26
Pugliesi, Benedetto.....9489 E. Outer Dr., Detroit 13
Purcell, Frank H.....10 Witherell St., Detroit 26
Puro, Henry E.....2900 S. Fort St., Detroit 17

Purves, W. L.....500 Griswold Street, Detroit 26
Quigley, Eugene H.....545 N. Waverly, Dearborn
Quigley, Wm. G.....16540 Warwick, Detroit 19
Quinn, Edward L.....1141 Golfview, Birmingham
Quinn, James (A).....212 Everett Ave., Newark, Ohio
Rabinovitch, Bella M.....20133 Marlowe, Detroit 35
Raby, Naim M.....215 St. Joseph, Trenton
Rachmaninoff, N.....Harper Hospital, Detroit 1
Ragins, Abner I. (A).....Wayne Co. Gen. Hosp., Eloise
Rahm, Lambert P.....14411 E. Jefferson Ave., Detroit 15
Raiford, Frank P.....681 E. Vernor Hgwy., Detroit 1
Raiford, Frank P., Jr.....681 E. Vernor Hgwy., Detroit 1
Raizin, L. H.....25115 Ridge Cliff Dr., Detroit 35
Ramsey, Robt. H.....310 River Lane, Dearborn
Randall, David S.....1765 W. Fort St., Lincoln Park
Rapp, Seymour L.....5055 W. Outer Dr., Detroit 35
Raskin, Herbert A.....18510 Meyers Road, Detroit 35
Raskin, Morris.....987 E. Jefferson, Detroit 7
Rastello, Peter B.....30001 Van Dyke, Warren
Rau, Frederick W.....631 Selden, Detroit 1
Ravitz, Louis A.....12831 Burton Ave., Oak Park 37
Ray, Kenneth J.....28059 Elba Dr., Grosse Isle
Raynor, Harold F.....49 Virginia Pk., Detroit 2
Rebuck, John W.....2799 W. Granm Blvd., Detroit 2
Redding, Lowell G.....1336 Southfield Rd., Lincoln Park
Reder, Benjamin....17301 W. Eight Mile Rd., Detroit 35
Redfern, W. Earl.....17392 Kirkshire St., Birmingham
Reed, Everett H. (A).....4034 Webb St., Detroit 4
Reed, Harry W.....8141 Dexter Blvd., Detroit 6
Reed, Ivor E.....1553 Woodward Ave., Detroit 26
Reed, Joseph O., Jr.....448 Lincoln, Detroit 30
Rees, Howard C.....15700 Mack Ave., Detroit 24
Reid, John G.....1553 Woodward Ave., Detroit 26
Reid, Wesley G.....3001 W. Grand Blvd., Detroit 2
Reiff, Morris V.....10241 Joy Rd., Detroit 4
Reinbolt, Chas. A. (L).....33570 Quaker Valley Rd., Farmington
Reiners, Charles R.....24250 Kipling, Oak Park
Reinsh, Ernest R.....5057 Woodward Ave., Detroit 2
Reisig, Robert O.....93 Kercheval, Detroit 36
Reisman, Nathan J.....15344 W. McNichols Road, Detroit 35
Reisman, Samuel G.....5057 Woodward Ave., Detorit 2
Reive, David L. E.....24401 Plymouth St., Detroit 39
Remski, James E.....1447 W. 7 Mile Rd., Detroit
Rennell, Leo P.....2567 W. Grand Blvd., Detroit 8
Reno, George L.....970 Fisher Bldg., Detroit 2
Rentenbach, Robt. F...314 David Whitney Bldg., Detroit
Reveno, Wm. S.....3001 W. Grand Blvd., Detroit 2
Reyner, Clarence E.....10 Peterboro St., Detroit 1
Reynolds, Lawrence.....10 Peterboro St., Detroit 1
Reynolds, Robt. M.....856 Fisher Bldg., Detroit 2
Reynolds, Roland P.....17521 Hamilton Rd., Detroit 3
Rezanka, Harold J.....1553 Woodward Ave., Detroit 26
Rhoades, Francis P.....5057 Woodward Ave., Detroit 2
Rice, Harold B.....10 Peterboro St., Detroit 1
Rice, Meshel.....533 Coats Rd., Oxford
Richardson, Allan L. (R).....Naubinway
Rick, Paul J.....12673 Joan, Detroit 5
Riddell, Wilfred A.....404 David Whitney, Detroit 26
Riddle, Charles B.....20945 Kelly Rd., East Detroit
Ridge, Ralph W. (L).....100 Oak St., Wyandotte
Rieckhoff, Geo. G.....14905 E. Jefferson Ave., Detroit 15
Rieden, James A.....18053 Muirland, Detroit 21
Rieger, John B. (L).....746 Pallister, Detroit 2
Rieger, Mary H.....19285 Lucerne Dr., Highland Park
Riethmiller, Robt. F.....12444 E. Seven Mile Rd., Detroit
Rinaldo, Joseph, Jr.....Henry Ford Hosp., Detroit 2
Rinkel, Robert W.....7319 Park Ave., Allen Park
Ritter, George.....28420 Sunset Blvd., Birmingham
Rizzo, Paul.....22525 Baseline, St. Clair Shores
Robb, Edward L.....17380 Livernois Ave., Detroit 21
Robb, Herbert F.....381 Main St., Belleville
Robb, Herbert J.....19324 Herrick Ave., Allen Park
Robb, James M. (L).....633 David Whitney Bldg., Detroit 26
Roberts, Arthur J.....1310 Warwick Road, Lincoln Park
Roberts, George A.....7220 Gratiot Ave., Detroit 13
Robins, S. Chas.....18963 Jas. Couzens Hwy., Detroit 35
Robinson, Harold A.....10040 Yellowstone, Detroit 4
Robinson, Howard.....3001 W. Grand Blvd., Detroit 2
Robinson, James H., Jr...1553 W. Grand Blvd., Detroit 8
Robinson, Remus G.....3751 31st St., Detroit 10
Rodin, Ernst A.....28 W. Adams, Detroit 26
Roeglin, Orville F. F.....4386 Balfour Rd., Detroit 24
Rogers, Aaron Z.....20451 Mack Ave. G.P.W., Detroit 36
Rogers, Geo. E. B.....10 Witherell St., Detroit 26
Rogers, James D.....2966 Biddle Ave., Wyandotte
Rogers, John T.....16921 Jas. Couzens Hwy., Detroit 35
Rogin, James R.....1150 Griswold St., Detroit 26
Rogoff, Abraham S.....5057 Woodward Ave., Detroit 2
Rohde, Paul C. (L).....12282 E. Outer Dr., Detroit 24
Rom, Jack.....8600 W. McNichols Rd., Detroit 21
Roman, Stanley J.....15020 Michigan Ave., Dearborn
Ronayne, John J., Jr.....16116 W. McNichols Rd., Detroit 35
Rosbolt, Oscar P.....8505 Plymouth Road, Detroit 4
Rosefield, John L.....65 W. Hancock, Detroit 1
Rosen, Harold M.....8620 W. McNichols Rd., Detroit 21
Rosen, Theodore S.....19340 Monte Vista, Detroit 21
Rosenbaum, Herbert.....19776 Snowden, Detroit 35
Rosenbaum, Jean B.....5854 W. Outer Dr., Detroit 35
Rosenbloom, Alvin B.....17555 Parkside, Detroit 21
Rosenthal, Albert.....18709 Meyers Rd., Detroit 21
Rosenthal, Louis H.....15401 W. McNichols, Detroit 35
Rosenthal, Samuel.....16350 Hamilton Ave., Detroit 3
Rosenwach, Felix F.....19149 W. Seven Mile Rd., Detroit 19
Rosenzweig, Saul.....2542 W. Boston, Detroit 6
Ross, Charles V.....7740 Da Costa, Detroit 39
Ross, Donald G.....722 Notre Dame Ave., Grosse Pointe 3
Ross, Hyman.....17301 W. 8 Mile Rd., Detroit 35
Rotarius, Edward M.....Parke Davis Co., Detroit 32
Roth, Edward T.....640 E. Grand Blvd., Detroit 7
Roth, Theodore I.....60 W. Hancock Ave., Detroit 1
Rothbart, Harold B.....25717 Coolidge, Oak Park
Rothman, Emil D.....25704 Ivanhoe, Huntington Woods
Rothwell, Walter S.....2900 S. Fort St., Detroit 17
Rottenberg, Coleman M. J.....13419 Fenkell, Detroit 27
Rottenberg, E. N...20725 W. Seven Mile Rd., Detroit 19
Rottenberg, Leon.....13419 Fenkell Ave., Detroit 27
Rourke, Robt. F.....4350 Haverhill, Detroit 24
Rowda, Michael S.....7 Cambridge, Pleasant Ridge
Rowe, Jos. J., Jr.....401 N. Brady, Dearborn
Royer, Richard R.....18101 E. Warren Ave., Detroit 24
Rubinoff, William..21415 W. Eight Mile Rd., Detroit 19
Ruble, Paul E.....1139 David Whitney Bldg., Detroit 26
Rucker, Julian J.....668 Farnsworth Ave., Detroit 2
Ruedemann, Albert D...1553 Woodward Ave., Detroit 26
Ruedemann, Albert D., Jr.....1553 Woodward Ave. Detroit 26
Rueger, Milton J.....86 Hall Pl. G.P.F., Detroit 36
Rueger, Ralph C.....9149 E. Jefferson Ave., Detroit 14
Runge, Edward F.....25549 Rouge River Dr., Dearborn
Rupe, Clarence E.....2799 W. Grand Blvd., Detroit 2
Rupp, Jacob R. (L).....8054 W. Fort, Detroit 9
Rupprecht, Emil F.....5525 W. Chicago Blvd., Detroit 4
Ruskin, Samuel H.....1112 Kales Bldg., Detroit 26
Rutzen, Arthur C.....3011 W. Grand Blvd., Detroit 2
Ryan, James M.....16888 Greenfield, Detroit 35
Ryan, William D. (R).....P.O. Box 4335, Porter Sta., Detroit 9
Rydzewski, Jos. B.....12170 Joseph Campau Ave., Detroit 12
Sack, Anthony G.....2567 W. Grand Blvd., Detroit 8
Sadler, Henry H., Jr.....594 Rivard Blvd., Grosse Pointe 3
Sadzikowski, Jos. T.....1320 N. Nenwood, Dearborn
Sage, Bernard A.....1013 Haigh St., Dearborn
Sage, Edward O. (L).....415 Burns Dr., Detroit 14
Sage, Thos. (A).....7815 E. Jefferson Ave., Detroit 14
Sager, Edward L.....13902 Gratiot Ave., Detroit 5
St. Amour, Hector J.....20120 Renfrew, Detroit 21
St. Louis, Rene J. (L).....10909 W. Jefferson Ave., River Rouge 18
Sakorraphos, S. N. (L).....1346 Broadway, Detroit 26
Sakwa, Saul.....19467 Livernois, Detroit 21

Salan, Lacy J.....995 S. Main St., Plymouth
Salchow, Paul T.....8285 Hartwell, Detroit 28
Saltzstein, Harry C.....5440 Cass Ave., Detroit 2
Sand, Harry H.....24110 Oxford, Dearborn
Sandberg, Hershel.....16900 Greenfield, Detroit 19
Sander, Frank V., Jr.....344 Glendale Ave., Highland Park 3
Sander, Irvin W.....5050 Cass Ave., Detroit 2
Sanders, Alexander W.....5057 Woodward Ave., Detroit 2
Sanderson, Alvord R. (L).....978 Pemberton Rd., Grosse Pointe 3
Sanderson, Susanne M. (L)....18520 West 7 Mile Rd., Detroit 19
Sandler, Nathaniel.....76 W. Adams Ave., Detroit 26
Sandweiss, David J.....15201 W. McNichols Rd., Detroit 35
Sapala, M. Andrew....13021 Mackenzie Ave., Detroit 28
Saraf, Leo B.....14540 E. Warren, Detroit 15
Sargent, Douglas A.....816 Grand Marais, Grosse Pointe Park
Sargent, Richard C.....17357 Fenkell St., Detroit 27
Sargent, William R.....17357 Fenkell St., Detroit 27
Sauk, John J.....302 W. McNichols Rd., Detroit 3
Saulsberry, Guy O.....301 E. Kirby, Detroit 2
Sauter, Simon H. (L)....1082 E. Grand Blvd., Detroit 7
Savignac, Eugene M.....4777 E. Outer Drive, Detroit 34
Sawdyke, Daria H.....7012 Mich. Ave., Detroit 10

Scarney, Herman D.....3011 W. Grand Blvd., Detroit 2
Schaefer, H. C.....7815 E. Jefferson, Detroit 14
Schaefer, Robt. L.....76 W. Adams Ave., Detroit 26
Schaeffer, J. N.....261 Brady, Detroit 1
Schaeffer, Martin.....18275 Warrington Dr., Detroit 21
Schakne, Norman R.....960 Fisher Bldg., Detroit 2
Schane, David A.....17157 Mendota, Detroit 21
Scheinberg, S. R.....2240 W. Grand Blvd., Detroit 8
Schembeck, Isaac S.....1553 Woodward Ave., Detroit 26
Schiller, Arthur E.....1553 Woodward Ave., Detroit 26
Schillinger, H. K.....4834 Neckel Ave., Dearborn
Schirack, Raymond D. (A).....Luzerne,
Schlafer, Nathan H.....10 Witherell St., Detroit 26
Schlemer, John (A).....13826 Dexter, Detroit 38
Schlesinger, Henry.....13534 Woodward Ave., Detroit 3
Schmaltz, John D.....1553 Woodward Ave., Detroit 26
Schmidt, Generva F.....1074 Vernier Rd. G.P.W., Detroit 36
Schmidt, Harry E.....24625 Fairmount Rd., Dearborn
Schmidt, Milton R.....2615 W. Jefferson, Trenton
Schmidt, Werner F.....28 W. Adams Ave., Detroit 26
Schmitt, Norman L.....10127 W. McNichols Rd., Detroit 21
Schneck, Robt. J.....1553 Woodward Ave., Detroit 26
Schneider, Chas. L.....22148 Michigan Ave., Dearborn
Schneider, Curt P.....3011 W. Grand Blvd., Detroit 2
Schoenfield, Gilbert D.....8830 W. McNichols Rd., Detroit 21
Schooten, Sarah S.....13700 Woodward Ave., Highland Park 3
Schreiber, Frederic.....10 Peterboro St., Detroit 1
Schroeder, Carlisle F.....26505 E. River Rd., Grosse Ile
Schuknecht, Harold F.....558 Washington, Grosse Pointe
Schulte, Carl H.....28 W. Adams Ave., Detroit 26
Schultz, Clarence H.....19353 Carlyle St., Dearborn
Schultz, Ernest C.....1553 Woodward Ave., Detroit 26
Schwartz, Benj.....275 W. Grand Blvd., Detroit 16
Schwartz, Harold A.....7605 Puritan Ave., Detroit 21
Schwartz, Louis A.....3011 W. Grand Blvd., Detroit 2
Schwartz, Oscar D...7421 W. Seven Mile Rd., Detroit 21
Schwartzberg, J. A.....17606 Birchcrest Dr., Detroit 28
Schwarz, Frank W.....7815 E. Jefferson, Detroit 14
Schweigert, C. F.....10627 Cadieux Rd., Detroit 24
Schwocho, Niles H.....6525 Park Ave., Allen Park
Sciarrino, Stanley V.....15388 Livernois Ave., Detroit 38
Scott, Marrion U.....20170 Mack Ave., Detroit
Scott, Robert J.....7333 W. 7 Mile Rd., Detroit 21
Scott, Wm. J.....20170 Mack Ave., Grosse Pointe Woods
Screen, Raymond J.....1420 St. Antoine St., Detroit 26

Seabrooks, Benj. F., Jr.....9136 Oakland Ave., Detroit 11
Secord, Eugene W. (A).....18980 Wyoming, Detroit 21
Seeley, James B.....5460 Schaefer Rd., Dearborn
Seeley, Ward F. (L)..1807 D. Whitney Bldg., Detroit 26
Segar, Laurence F.....10 Witherell St., Detroit 26
Segel, Nathan P.....19100 Manor, Detroit 21
Seibert, Alvin H. (L).....1180 Bedford Rd., Grosse Pointe Park 3
Seiferlein, A. L.....1553 Woodward Ave., Detroit 26
Selbst, Ronald A.....1342 Maccabees Bldg., Detroit 2
Self, Wm. G.....20861 Mack Ave., Grosse Pointe 36
Sellers, Chas. W.....2314 W. Grand Blvd., Detroit 8
Sellers, Graham A.....10535 W. 7 Mile Rd., Detroit 21
Seltzer, Joseph.....18963 James Couzens, Detroit 35
Sepetys, Povilas.....Herman Kiefer Hosp., Detroit
Seski, Arthur G.....3011 W. Grand Blvd., Detroit 2
Sewell, Geo.....411 W. Ten Mile Rd., Pleasant Ridge
Sewell, Guy W.....17751 E. Warren Ave., Detroit 24

Shada, John C.....770 Shoreham, Grosse Pte. 36
Shafarman, Eugene M.....5320 John R St., Detroit 2
Shaffer, Jos. H.....2401 Radnor Dr., Birmingham
Shaffer, Loren W. (R)..6040 Wildrose Lane, Port Huron
Shafter, Royce R.....3011 W. Grand Blvd., Detroit 2
Shanoski, Stanley J.....5057 Woodward Ave., Detroit 2
Shapiro, Isadore A.....4400 Livernois St., Detroit 10
Shapiro, Jacob.....15085 E. 7 Mile Rd., Detroit 5
Shapiro, Reuben I.....5057 Woodward Ave., Detroit 2
Shargel, Geo. M. J.....1800 Tuxedo, Detroit 6
Sharp, Elwood A. (R).....633 Neff Rd., Grosse Pointe 3
Sharpe, Wm. D.....24251 W. McNichols Rd., Detroit
Sharrer, Chas. H.....1133 Grayton, Detroit 30
Shekerjian, Armen.....20194 Wakefield, Detroit 21
Shelden, Warren E.....17147 Whitcomb, Detroit 35
Sheldon, John A. (L).....1435 Three Mile Dr., Grosse Pointe Park 3
Shelton, Carl F.....10 Witherell St., Detroit 26
Sheppard, Emma L. W. (R).....314 Main St., Fenton
Sherman, Marvin.....15140 Miller, Oak Park 37
Sherman, W. LaRue.....10 Peterboro St., Detroit 2
Sherman, Wm. L., Jr.....(No Address)
Sherrin, Edgar R.....17555 James Couzens, Detroit 35
Shewchuk, A. P.....7300 Allen Rd., Allen Park
Shick, John E.....Henry Ford Hosp., Detroit 2
Shields, Wm. L.....510 Hildale, Detroit 3
Shiffman, Milton M.....Sinai Hosp., Detroit 35
Shifrin, Peter G.....20211 Greenfield, Detroit 35
Shiovitz, Louis.....5419 Michigan Ave., Detroit 10
Shipton, Waldo H. (A)....General Delivery, Naples, Fla.
Shlain, Benj.....10244 W. 7 Mile Rd., Detroit 21
Shors, Clayton M.....19635 Mack Ave., Detroit 35
Shortz, Gerald (A).....1994 Vernier, G.P.W., Detroit 36
Shreve, Alfred J.....10149 Michigan Ave., Dearborn
Shufro, Arthur S.....23084 Kipling, Oak Park
Shulak, Irving B.....10 Witherell St., Detroit 26
Shulman, Herschel A.....5057 Woodward Ave., Detroit 2
Shumaker, Edward J.....17606 Wildemere, Detroit 21

Siddall, Roger S.....3011 W. Grand Blvd., Detroit 2
Sieber, Edward H.....15112 Michigan Ave., Dearborn
Siefert, John L.....12720 E. Outer Dr., Detroit 24
Siefert, Wm. A.....17400 Grand River Ave., Detroit 27
Siegel, Henry.....19720 Chesterfield, Detroit 21
Sieracki, Joseph C.....Henry Ford Hosp., Detroit 2
Siero, Jose M. (M).....9105 Van Dyke, Detroit 13
Sievers, Lorraine A.....1457 D. Whitney Bldg., Detroit 26
Sigler, John W.....1356 Greenlawn Blvd., Birmingham
Sill, Jacob A.....19635 Mack Ave., G.P.W., Detroit 36
Sillery, Robert J.....857 Grosse Pte. Ct., Grosse Pte. 3
Silvarman, Israel Z.....9105 Van Dyke Ave., Detroit 13
Silver, Israel W.....20000 W. Chicago, Detroit 28
Silverman, Maurice M...17301 W. 8 Mile Rd., Detroit 35
Silverman, Max.....2240 W. Grand Blvd., Detroit 8
Simmons, Donald R.....76 W. Adams Ave., Detroit 26
Simon, Heinz G.....18031 Kelly Rd., Detroit 24
Simpson, Gordon E.....18101 E. Warren Ave., Detroit 24
Sinclair, James W.....16404 E. Warren, Detroit 24
Singer, Floyd W.....13530 Michigan Ave., Dearborn
Sippola, Geo. W.....13603 LaSalle Blvd., Detroit 38
Sisson, John M.....17320 W. McNichols, Detroit 35
Sivak, B. J.....24604 Templar, Detroit 35

Sklar, Manuel.....14444 W. 6 Mile Rd., Detroit 35

Skully, Edward J.....14000 Linnhurst, Detroit 5
Sladen, Frank J. (L).....Henry Ford Hosp., Detroit 2
Slahetka, Vincent E.....7435 Michigan Ave., Detroit 10
Slaughenhaupt, J. G. (L).....16887 Lawton, Detroit
Slaughter, Fred M.....455 E. Adams St., Detroit 26
Slazinski, Leo W.....7618 Michigan Ave., Detroit 10
Slevin, John G.....10 Witherell St., Detroit 26
Sliwin, Edward P.....4917 Schaefer Rd., Dearborn
Slusky, Jos.....1527 D. Stott Bldg., Detroit
Slutzky, Gilbert.....18614 Warrington, Detroit 21
Sly, Robert F.....2101 Monroe Blvd., Dearborn 8

Small, Henry.....11507 Hamilton Ave., Detroit 2
Small, John T.....19735 Florence, Detroit 19
Smathers, Homer M.....14219 W. McNichols, Detroit 35
Smathers, Ward M.....14219 W. McNichols, Detroit 35
Smeck, Arthur R. (L)....1036 Waterman Ave., Detroit 9
Smith, Clarence V.....1716 E. Grand Blvd. Detroit 11
Smith, Claude A. (L).....7 Adams Lane, Dearborn
Smith, Douglas H.....1800 Tuxedo, Detroit 6
Smith, F. Janney (L).....1050 Yorkshire Rd., Grosse Pointe Park 3

Smith, Henry L.....16401 Grand River Ave., Detroit 27
Smith, J. Allen.....14140 Puritan Ave., Detroit 27
Smith, Richard H.....1308 Broadway, Detroit 26
Smith, Richmond W., Jr.....2799 W. Grand Blvd., Detroit 2

Smith, Roger F.....18755 Wilshire Ave., Lathrup Village
Smolenski, John J.....13815 Puritan Ave., Detroit 27
Smyka, Edward J.....6111 Charles St., Detroit 12
Smyka, Stanley M.....15731 Glenwood, Detroit 5
Snedeker, Bernard C.....18800 Woodward Ave., Detroit 3
Snider, James J. (M).....403 W. Bloomfield, Royal Oak
Snider, Thomas H.....VA Hospital, Dearborn
Snoke, Edwin C.....Lynn Hospital, Detroit 17
Snow, Linwood W.....508 W. Main St., Northville

Sobel, Robert A.....18980 Wyoming, Detroit 21
Socall, Chas. J.....8500 Mount Elliott Ave., Detroit 11
Sokolov, Raymond A.....3011 W. Grand Blvd., Detroit 2
Soller, Alex S.....15105 W. 7 Mile Rd., Detroit 35
Solomon, A. B.....9559 Greenfield, Detroit 27
Solomon, Robert J.....1221 Lincoln, Lincoln Park
Sonda, Lewis P.....1553 Woodward Ave., Detroit 26
Sorock, Milton L.....19467 Livernois, Detroit 21
Sosa, Carlos M. A...10824 Talbot St., Huntington Woods

Speck, Carlos C.....6525 Park Ave., Allen Park
Spector, Maurice J.....12938 E. Jefferson, Detroit 15
Spero, Gerald D.....7330 W. 7 Mile Rd., Detroit 21
Sperry, Frederick L. (A).....490 Arlington, Berkley, Cal.
Sphire, Raymond D.....4160 John R St., Detroit 1
Spiro, Adolph S.....13240 Harper, Detroit 13
Springborn, Benj. R.....15818 E. Warren Ave., Detroit 24
Sprunk, Carl J.....2900 Oakwood Blvd., Melvindale
Spurrier, Ethelbert.....1553 Woodward Ave., Detroit 26
Squires, Walter M. (R).....1616 S. 28 Ave., St. Petersburg, Fla.

Stalker, Hugh (R).....25 Radnor Circle, Detroit 36
Stamell, Benj. B.....5057 Woodward Ave., Detroit 2
Stamell, Meyer.....14634 Greenfield St., Detroit 27
Staniszewski, C.....8581 Pinehurst, Detroit 4
Stanton, James M.....28 W. Adams Ave., Detroit 26
Stanton, Myron R.....3400 W. Warren, Detroit 8
Stapleton, Wm. J., Jr. (L)..201 E. Kirby Ave., Detroit 2
Starbird, Wm. A.....14110 Gratiot, Detroit
Starrs, Thos. C. (L).....2211 Woodward Ave., Detroit 1
Staryk, Steven E.....1010 N. Oxford Rd., G.P.W., Detroit 36

Staub, Howard P.....37625 Michigan Ave., Wayne
Staudt, Louis W.....1201 Pilgrim, Birmingham
Stearns, Alexander B.....1116 Maccabees Bldg., Detroit 2
Stebbins, Chas. E.....664 Fisher Bldg., Detroit 2
Stecker, Arthur.....1001 Kales Bldg., Detroit 26
Steepe, Chas. A. D.....20861 Mack, Grosse Pte. Woods
Stefani, Ernest L.....18600 Birchcrest, Detroit 21
Stefani, Raymond T.....13516 Stoepel Ave., Detroit 38
Steffensen, Ellis H.....2799 W. Grand Blvd., Detroit 2
Stein, Albert H.....19334 San Juan Dr., Detroit 21
Stein, Saul C.....23105 Van Dyke, Van Dyke

Steinbach, A. L.....320 Merriweather Rd., Grosse Pointe 36
Steinberger, E. J.....6402 W. Fort St., Detroit 9
Steiner, Fredk. B.....7675 Ridge Rd., Plymouth
Steiner, Gabriel.....10 Peterboro St., Detroit 1
Steiner, Louis J.....12636 Chelsea Ave., Detroit 13
Steiner, S. D.....3044 W. Grand Blvd., Detroit 2
Steinhardt, Milton J.....10720 W. 7 Mile Rd., Detroit 21
Stellhorn, Chester E.....12900 W. 7 Mile Rd., Detroit 35
Stellhorn, Mary C. (A).....16616 Mack Ave., Detroit 24
Stempel, Edward M.....18324 Fairfield Ave. Detroit 21
Sterba, Richard F.....1130 Parker Ave., Detroit 14
Sterling, Robert R.....52 Oxford Blvd., Pleasant Ridge
Stern, Julian.....1553 Woodward Ave., Detroit 26
Stern, Leonard H.....1630 Wellesley Dr., Detroit 3
Stern, Louis D.....1553 Woodward Ave., Detroit 26
Stevens, Chas. H.....Med. Concourse NC, Detroit 35
Stevenson, Chas. S.....19545 Park Lane, Grosse Ile
Stevenson, Lee B.....Henry Ford Hosp., Detroit 2
Stewart, Lula B.....8633 Dexter Blvd., Detroit 6
Stewart, Maitland N., Jr.....10 Peterboro St., Detroit 1
Stewart, Marjorie.....581 Golfcrest, Dearborn
Stewart, Robert M.....15357 Farmington Rd., Livonia
Stewart, Thos. O.....17187 Schaefer Hwy., Detroit 35
Stiefel, Daniel M.....1553 Woodward Ave., Detroit 26
Stillwater, Karl.....18221 Pennington, Detroit 21
Stirling, A. M. (R).....1005 Kensington. Detroit
Stith, Dwight E.....505 Owen St., Detroit 2
Stobbe, Godfrey D.....4160 John R St., Detroit 1
Stocker, Lawrence L.....7330 W. 7 Mile Rd., Detroit 21
Stocker, Marvin L.....16401 Grand River, Detroit
Stockwell, Benj. W.....3919 John R St., Detroit 1
Stokfisz, Thaddeus.....7012 Michigan, Detroit 10
Stoller, Raymond.....25210 Grand River Ave., Detroit 19
Stone, Sidney L.....14620 E. 7 Mile Rd., Detroit 5
Straith, Richard E.....2605 W. Grand Blvd., Detroit 8
Strand, Martin E.....22400 Cherry Hill, W. Dearborn
Stricker, Henry D.....5624 W. Fort St., Detroit 9
Strickroot, Fred L.....1496 Chicago Blvd., Detroit 6
Strohschein, D. F.....15800 W. McNichols Rd., Detroit 35
Stronski, G. E.....9901 Whittier, Detroit 24
Strutz, Wm. C. (N)....7310 Grandmont Ave., Detroit 28
Stryker, Joan C.....21604 E. River Rd., Grosse Ile
Stryker, Walter A.....P.O. Box 31, Wyandotte
Stubbs, Clayton T.....13930 Woodward Ave., Detroit
Stump, Geo. D.....1355 D. Whitney Bldg., Detroit 26

Suen, Irene T. S.....3675 E. Outer Dr., Detroit 34
Sugar, David I.....17 Brady, Detroit 1
Sugar, H. Saul.....18140 San Juan Dr., Detroit 21
Sugarman, Marcus H.....15201 W. McNichols, Detroit 35
Sullivan, Hugh A.....1553 Woodward Ave., Detroit 26
Sultzman, L. Carl.....1438 Iroquois, Detroit 14

Summers, Wm. A.....1553 Woodward Ave., Detroit 26
Summers, Wm. S. (L).....402 N. Palmway, Lake Worth, Fla.

Surbis, John P.....22277 Long Blvd., Dearborn
Sutherland, Jacob M. (L)....716 Pallister Ave., Detroit 2
Suwinski, Raymond H...9801 Conant St., Hamtramck 12
Swan, Donald C.....651 Fisher Bldg., Detroit 2
Swanson, Carl W.....936 Alter Rd., Detroit 15
Swanson, Raymond E.....22161 W. Outer Dr., Dearborn
Swanson, Robert G.....936 Alter Rd., Detroit 15
Swartz, Fred G., Jr.....1329 D. Whitney, Detroit 26
Sweeny, Donald N., Jr.....8445 E. Jefferson, Detroit 14
Swihart, John J.....505 David Whitney Bldg., Detroit 26
Switzer, Bertrand C. (R).....12246 Ilene, Detroit
Syphax, Charles S.....1819 E. Davison, Detroit 3
Szabunia, Sigmund C.....19600 Van Dyke, Detroit 34
Szappanyos, Bela (A).....18317 Stoepel, Detroit 21
Szilagyi, D. Emerick.....14638 Stahelin, Detroit 23
Szladek, Frank J.....4045 W. Jefferson Ave., Ecorse 29

Taber, Rodman E.....Henry Ford Hosp., Detroit 2
Talbot, Frank G.....1365 Cass, Detroit 26
Tallant, Edward J...19324 Westmoreland Rd., Detroit 19
Talmers, Fredk. N.....VA Hospital, Dearborn
Tamblyn, E. J. (L).....468 Cadieux Rd., Grosse Pte. 3
Tanner, Natalia M.....8035 Twelfth St., Detroit 6
Tapert, Julius C.....888 Chalmers Ave., Detroit 15

Tarpinian, Dick A.....1048 David Whitney, Detroit 26
Tarpinian, Harry....17701 W. McNichols Rd., Detroit 35
Tasker, Helen E.....76 W. Adams Ave., Detroit 26
Tassie, Ralph N.....15000 Gratiot Ave., Detroit 5
Tatelis, Gabriel A.....1011 E. Grand Blvd., Detroit 7
Tatelman, Maurice.....5440 Cass Ave., Detroit 2
Taurence, Wm. H.....1860 Ford Ave., Wyandotte
Taylor, Ivan B.....1116 Maccabees Bldg., Detroit 2
Taylor, Junius L.....2435 W. Boston Blvd., Detroit
Taylor, Nelson M.....654 St. Clair Ave., Grosse Pte. 3
Taylor, Wm. V.....324 Moross Rd., G.P.W., Detroit 36
Tazzioli, Henry A.....21970 Moross Rd., Detroit 36
Tear, Malcolm J. J...18445 Woodingham Dr., Detroit 21
Teitelbaum, Myer.....18510 Meyers Rd., Detroit 35
Tenaglia, Thos. A.....820 Kings Hwy., Lincoln Park
Tenerowicz, R. G.....2925 Lehman Ave., Detroit 12
Teshima, John Y.....18800 Woodward Ave., Detroit 3
Texter, Elmer C.....7457 Gratiot Ave., Detroit 13
Thomas, Alfred E.....73 E. Palmer, Detroit 2
Thomas, Blanche M.....6535 Allen Rd., Allen Park
Thomas, Delma F. (L)..3011 W. Grand Blvd., Detroit 2
Thompson, Arthur L.....6125 Scotten Ave., Detroit 10
Thompson, Hugh O.....6014 W. Fort St., Detroit 9
Thompson, Wm. A. (R)....6125 Scotten Ave., Detroit 10
Thomson, Daniel C.....2966 Biddle Ave., Wyandotte
Thornell, Harold E.....7407 Twelfth St., Detroit 6
Thornton, Jerry A.....525 Visger Rd., Ecorse 29
Thosteson, G. C.....1139 David Whitney, Detroit 26
Thumann, Robert C.....1553 Woodward Ave., Detroit 26
Thumim, Sadie.....15306 Joy Rd., Detroit 28
Timma, Richard J...16401 Grand River Ave., Detroit 27
Ting, Yoeh Ming.....16024 Stratford Dr., Detroit
Tkaczuk, Dmytro.....10345 Joseph Campau, Detroit 12
Tobin, John S.....13400 W. Outer Dr., Detroit 28
Todoroff, Theodore G.....22740 Hollander, Dearborn
Tolbert, Vassal G.....3705 Hastings St., Detroit 1
Tomsu, Chas. L.....16521 Westmoreland Rd., Detroit 19
Torres, Estelle P.....3985 Caniff, Hamtramck 12
Torres, Raul M., Jr.....3985 Caniff St., Hamtramck 12
Tourkow, Lawrence P.....4741 Fullerton, Detroit 38
Tourney, Garfield.....Lafayette Clinic, Detroit 7
Townsend, F. M., Jr.....1551 Trumbull Ave., Detroit 16
Tracey, Edw. G.....3411 Evaline St., Detroit 12
Tracey, John M.....15317 W. McNichols, Detroit 35
Trader, Kenneth N.....3001 W. Grand Blvd., Detroit 2
Tregenza, Wm. K.....18530 Grand River, Detroit 23
Tremain, Harold L.....106 W. Davison, Detroit 3
Trisler, John J.....651 Fisher Bldg., Detroit 2
Troester, Geo. A.....5057 Woodward Ave., Detroit 2
Trombino, James F. V.....18800 Woodward Ave., Detroit
Truba, Paul K.....3714 W. McNichols Rd., Detroit 21
Trudeau, John M.....17300 Schaefer, Detroit 35
Trudgen, Paul E.....1224 Beechmont, Dearborn
Trupiano, Samuel.....5026 Bedford, Detroit 24
Trythall, S. W.....Box 33, Orchard Lake
Tulloch, John.....1040 David Whitney, Detroit 26
Tupper, Roy D.....15105 W. 7 Mile Rd., Detroit 35
Turbett, Claude W. (L).....4230 Commonwealth Ave., Detroit 8
Turcotte, Vincent J. (A).....545 Lakeland, Grosse Pte.
Turnbull, Jack V.....22340 Michigan Ave., Dearborn
Turner, John J.....9078 Minock St., Detroit 28
Turner, Rachael E.....3113 Evergreen, Royal Oak
Tuynman, Peter E...20032 W. McNichols Rd., Detroit 35

Uddyback, Odie T.....7647 Linwood, Detroit 6
Ujda, Chester J.....32126 Woodbrook, Wayne
Ulbrich, Henry L. (L).....1540 Torrey Rd., Grosse Pointe Woods 36
Ulmer, Arthur A.....1989 Broadstone, G.P.W., Detroit 36
Ulrich, Willis H.....22365 Grand River Ave., Detroit 19
Umphrey, Clarence E.....6216 Hill Dr., Birmingham
Unkefer, Wm. T.....15800 W. McNichols Rd., Detroit 35
Usher, Wm. K.....15605 Kercheval Ave., Grosse Pte. 3
Usndek, Harold E.....18485 Mack Ave., Detroit 36

Vaitas, Otonas.....9928 Farmington Rd., Livonia
Vale, Clair F. (R)....2615 Via Tuscany, Winter Pk., Fla.
Van Arsdale, Wm. L. (A).....15920 Loveland, Livonia
Van Becelaere, L. A.....1860 Ford Ave., Wyandotte
Vanden Berg, H. J., Jr...1553 Woodward Ave., Detroit 26
Vander, Seymour A.....12730 W. McNichols, Detroit 35
Van Eck, James E.....279 Lothrop, G.P.F., Detroit 36
Van Hoek, Donald E...14540 E. Warren Ave., Detroit 15
Van Hoey, Alger F.....19154 James Couzens, Detroit 35
Van Raaphorst, L. F.....861 Monroe, Dearborn
Van Riper, Steven L.....1490 Iroquois, Detroit 14
Van Slyck, E. J.....Henry Ford Hosp., Detroit 2
Vardon, Edward M.....12897 Woodward Ave., Highland Park 3
Vasu, Vasile O.....4829 Woodward Ave., Detroit 1
Velat, Clarence A.....2500 W. Grand Blvd., Detroit 8
Veling, William F.....3001 W. Grand Blvd., Detroit 2
Vincent, John W.....22214 Ford Rd., Dearborn
Vipond, Wm. S.....15398 Gratiot Ave., Detroit 5
Vokes, Milton D.....10182 Gratiot Ave., Detroit 13
Volini, Frederick (A).....Receiving Hosp., Detroit
Vonder Heide, Elmore C...17190 Strathmoor, Detroit 35
Vorwald, Arthur J.....1401 Rivard St., Detroit 7
Vossler, Albert E.....1553 Woodward Ave., Detroit 26

Waggoner, Lyle G.....1553 Woodward Ave., Detroit 26
Wainger, Max J.....10 Witherell St., Detroit 26
Wainstock, Michael A.....10 Witherell St., Detroit 26
Wakeman, Everal M.....22276 Garrison Ave., Dearborn
Waldbott, Geo. L.....2930 W. Grand Blvd., Detroit 2
Walker, Frank B., II (A).....980 Nottingham Rd., Grosse Pointe
Walker, Geo. L.....10 Peterboro, Detroit 1
Walker, Roger V.....1553 Woodward Ave., Detroit 26
Walkowiak, Robert G.....76 W. Adams Ave., Detroit 26
Wallace, Silas W.....7815 E. Jefferson Ave., Detroit 14
Waller, John P.....11445 Harrison, Livonia
Walls, Arch.....17201 W. McNichols Rd., Detroit 35
Walser, Howard C.....459 Fisher Bldg., Detroit 2
Walsh, Francis P.....654 Fisher Bldg., Detroit 2
Walter, Arthur W.....14201 Rutland Rd., Detroit 27
Walter, Floyd J.....18714 Grand River Ave., Detroit 23
Waltz, Arthur G.....Wayne State Univ., Detroit 2
Warner, Jack F.....7850 E. Jefferson Ave., Detroit 14
Warner, Peter L.....10314 Puritan Ave., Detroit 38
Warren, Irving A.....4100 W. McNichols Rd., Detroit 21
Warren, Max W.....20001 Shrewbury St., Detroit 21
Warren, Wadsworth.....1553 Woodward Ave., Detroit 26
Wasserman, Harold.....19642 W. 7 Mile Rd., Detroit
Wasserman, Lewis C.....300 W. McNichols Rd., Highland Park
Waszak, Chas. J.....2501 W. Grand Blvd., Detroit 8
Watson, Douglas J.....15101 Plymouth, Detroit 27
Watson, Harwood G.....935 S. Military Ave., Dearborn
Watson, J. Edwin.....2536 W. Grand Blvd., Detroit 8
Watts, Fredk. B.....16321 Mack Ave., Detroit 24
Watts, John C.....7360 12th St., Detroit 6
Watts, Jos. C.....5057 Woodward Ave., Detroit 2
Wayne, Morris A.....15930 Livernois Ave., Detroit 38
Weaver, Clarence E. (R).....1260 S.E. 4th Ct., Deerfield Beach, Fla.
Weaver, Delmar F.....1100 Bishop, G.P.P., Detroit 30
Weber, Karl W.....18101 E. Warren Ave., Detroit 24
Weber, Olga P.....1420 St. Antoine St., Detroit 26
Webster, John E. (A)..1553 Woodward Ave., Detroit 26
Weed, Milton R.....1997 E. Grand Blvd., Detroit 11
Wehenkel, Albert M. (L).....7356 12th St., Detroit 6
Wehr, Maurice B.....2355 Fort St., Lincoln Park
Weiner, Allen D.....21415 W. 8 Mile, Detroit 19
Weiner, Maurice B.....20211 Greenfield, Detroit 35
Weingarden, David.....13240 Vassar Dr., Detroit 35
Weinstein, Jacob.....4237 Grand River Ave., Detroit 8
Weisberg, A. Allen.....20 W. 7 Mile Rd., Detroit 3
Weisberg, Harry....15101 W. McNichols Rd., Detroit 35
Weisberg, Jacob.....15101 W. McNichols Rd., Detroit 35
Weisenthal, Irvin I.....5764 Woodward Ave., Detroit 2
Weiss, Casimir P.....1801 E. Canfield, Detroit 7
Weiss, Chas. F.....203 McMellan, Grosse Pointe 36
Weiss, Morris.....Hawthorn Center, Northville
Weissman, Fredrick.....13345 W. McNichols, Detroit
Welch, John H.....18550 W. Outer Dr., Dearborn 7
Weller, Chas. N.....1553 Woodward Ave., Detroit 26

Wells, Hersehel J.....Wayne Co. Gen. Hosp., Eloise
Wells, Martha L.....3011 W. Grand Blvd., Detroit 2
Weltman, Carl G. (A).....R.R. 2, Snead Island, Palmetto, Florida
Wendel, Jacob S. (L).....744 David Whitney, Detroit 26
Wenzel, Jacob F.....18555 E. Warren, Detroit 36
Werle, Peter P.....1420 St. Antoine, Detroit 26
West, Charles (A).....23851 Ithaca, Detroit 37
West, George A.....6303 Mack Avenue, Detroit 7
West, Malcolm E.....4667 Mt. Elliott, Detroit 7
Weston, Bernard.....19760 Monte Vista, Detroit 21
Weston, Earl E.....18101 Jas. Couzens Hwy., Detroit 35
Weston, Horace L.....28 W. Adams St., Detroit 26
Weston, Jean K.....444 Lodge Dr., Detroit 14
Weyher, Russell F.....5383 Oakman Blvd., Detroit 4
Whalen, Neil J.....1553 Woodward Ave., Detroit 26
Wharton, Thos. V.....1809 Oak St., Wyandotte
Wheatley, Bruce T...16201 W. McNichols Rd., Detroit 35
Wheatley, Charles E.....10151 Michigan Ave., Dearborn
Wheeler, Stewart C.....18901 W. McNichols Rd., Detroit 19
Whelan, Jos. L.....1360 Oxford Rd., G.P.W., Detroit 36
Whitcomb, Chas. E.....15111 Seminole, Detroit 39
White, Donald H.....20685 Meridian, Grosse Ile
White, Milton W.....1439 E. Outer Dr., Detroit 34
White, Prosper D.....66 Tuxedo Ave., Highland Park 3
White, Theodore M.....7159 Michigan, Detroit 10
Whitehead, Leston S.....1553 Woodward Ave., Detroit 26
Whitehead, Walter K...1553 Woodward Ave., Detroit 26
Whitehouse, Fred W.....2799 W. Grand Blvd., Detroit 2
Whiteley, Robert K.....216 Lakeland Ave., Detroit 30
Whitelock, Edward H.....1809 Oak St., Wyandotte
Whitman, James E.....3137 E. 7 Mile Rd., Detroit 34
Whitney, Elmer L. (L)..2 Kenberton Rd., Pleasant Ridge
Whitney, Rex E.....5525 W. Chicago Ave., Detroit 4
Whitrock, Robert M.....1401 Rivard St., Detroit 7
Whittaker, Alfred H.....1427 E. Jefferson Ave., Detroit 7

Wiechowski, Henry E.....10345 Jos. Campau, Detroit 12
Wiener, Israel.....13011 W. McNichols Rd., Detroit 35
Wiener, Morton J.....76 W. Adams Ave., Detroit 26
Wietersen, Fred K.....18700 Meyers Rd., Detroit 35
Wight, Fred B.....952 D. Whitney Bldg., Detroit 26
Wikiera, Edward S.....15020 Michigan Ave., Dearborn
Wilcox, Leslie F. (A).....505 Middlesex Rd., Grosse Pointe Park
Wilhelm, Rudolf E. (M).....18273 Santa Rosa Ave., Detroit 21
Wilhelm, Seymour K.....13011 W. McNichols, Detroit 35
Wilkinson, Arthur P.....3001 W. Grand Blvd., Detroit 2
Willard, Rodney E.....22231 W. Outer Dr., Dearborn
Williams, Chas. R.....13108 Balfour Rd., Huntington Woods
Williams, Clarence J.....1342 Grayton Rd., G.P.P., Detroit 30
Williams, Earl R.....10151 Michigan Ave., Dearborn
Williams, Eugene W.....10149 Michigan, Dearborn
Williams, John H.....15324 E. Jefferson, Detroit 30
Williams, Joshua S.....8276 Grand River Ave., Detroit 4
Williamson, John G. (A)..3660 McKinley St., Dearborn
Williamson, Willie A.....4280 Cortland, Detroit 4
Willoughby, Wm. A.....974 Fisher Bldg., Detroit 2
Wilner, Freeman M.....15001 W. 8 Mile Rd., Detroit 35
Wilner, Irvin A.....17701 McNichols Rd., Detroit 35
Wilson, Andrew G.....4741 Spokane Ave., Detroit 4
Wilson, George M., Jr.....Henry Ford Hosp., Detroit 2
Wilson, Gerald A.....771 Fisher Bldg., Detroit 2
Wilson, Gerald S.....3011 W. Grand Blvd., Detroit 2
Wilson, Ian D.....4741 Spokane, Detroit 4
Wilson, Merton C.....15439 Harper Ave., Detroit 24
Winnick, Lawrence C...13340 W. 7 Mile Rd., Detroit 35
Winton, Geo. J.....1150 Griswold St., Detroit 26
Wise, Robert K.....15801 W. McNichols Rd., Detroit 35
Wishropp, Edward A.....20250 Mack, Grosse Pte. 36
Wisniewski, E. M.....20100 Cooley, Detroit 19
Wittenberg, Arthur A...7101 W. Chicago Blvd., Detroit 4
Wittenberg, Samson S.....2306 Oakman Blvd., Detroit 38
Wittenberg, Sydney S.....4400 Livernois Ave., Detroit 10
Witter, Jos. A.....344 Glendale Ave., Highland Park 3
Witus, Carl.....15041 E. 7 Mile Rd., Detroit 5
Witus, Morris.....9036 Dexter Blvd., Detroit 6
Wolfe, Max O.....3044 W. Grand Blvd., Detroit 2
Wolfson, Wm. Q.....130 Waverly, Highland Park
Wollank, Helen W.....15439 Harper, Detroit
Wollenberg, Robert A. C. (L).....1553 Woodward Ave., Detroit 26
Wolter, James G.....6071 W. Outer Dr., Detroit 35
Wood, Alfred L.....25001 Ford Rd., Dearborn
Wood, Douglas J.....2860 Clark Ave., Detroit 10
Wood, Geo. P.....2730 E. Jefferson St., Detroit 7
Wood, Kenneth A.....3919 John R St., Detroit 1
Wood, Wilford C.....3011 W. Grand Blvd., Detroit 2
Woodbury, Ralph F.....15850 E. Warren, Detroit
Woodley, Bernard J. (M)..P.O. Box 787, 29 Palms, Cal.
Woods, Joseph J.....18255 W. McNichols, Detroit
Woodworth, Wm. P. (L)..153 E. Elizabeth St., Detroit 1
Woolfenden, Jos. B.....1215 Three Mile Dr., Grosse Pointe Park
Worley, Frederick M., Jr...2799 W. Grand Blvd., Detroit
Worzniak, Jos. J.....2312 Biddle Ave., Wyandotte
Wreggit, Winston R...17 Colorado Ave., Highland Park 3
Wright, Charles H.....50 Westminster, Detroit 2
Wruble, Jos.....411 Selden Ave., Detroit 1
Wunsch, Richard E.....497 Rivard Blvd., Grosse Pte. 3
Wybranowski, Jan.....17644 W. Warren, Detroit
Wylie, John H.....Henry Ford Hosp., Detroit 2

Yarrows, Morton I.....455 Medbury St., Detroit 2
Yates, Arthur J. W.....16355 E. Jefferson, Grosse Pte. Pk.
Yetzer, Wm. J.....10 Peterboro St., Detroit 1
Yoder, Robert R.....41001 E. 7 Mile Rd., Northville
Yott, Wm. J.....854 Lakeshore Rd., G.P.S., Detroit 36
Young, David J.....Receiving Hosp., Detroit 26
Young, Donald A...14807 W. McNichols Rd., Detroit 35
Young, Donald C.....1151 Taylor, Detroit 2
Young, Irving I.....32280 Shrewsbury, Farmington
Young, Lloyd B.....15800 W. McNichols, Detroit 35
Young, M. O.....8445 E. Jefferson, Detroit 14
Young, Richard D...18000 Jas. Couzens Hwy., Detroit 35
Young, Viola M. (L).....10 Peterboro St., Detroit 1
Young, Watson A.....28437 Michigan Ave., Inkster
Youngstrom, Clarence S.....8004 Lochdale, Dearborn

Zabinski, Edward J.....585 Ballantyne Rd., G.P.S., Detroit 36
Zager, Bernard S.....25321 Fenkell Ave., Detroit 39
Zavell, Paul M.....20250 Mack Ave., Grosse Pte. Woods
Zawacki, Sigmund G.....22214 Ford Rd., Dearborn
Zawadzki, Edward S.....14961 Piedmont Ave., Detroit 23
Zbikowski, Jos.....Wayne Co. Gen. Hosp., Eloise
Zbikowski, Z. T.....33563 Five Mile Rd., Livonia
Zbudowski, Myron R.....10040 Jos. Campau Ave., Detroit 12
Zelenock, Michael N.....2514 Biddle St., Wyandotte
Zemaitis, Petras.....3835 Biddle St., Wayne
Zemens, Jos. L.....13061 E. 8 Mile Rd., East Detroit
Ziegler, Robert F.....2799 W. Grand Blvd., Detroit 2
Zielinski, Charles J.....10801 W. Warren, Dearborn
Zinn, Geo. H.....1553 Woodward Ave., Detroit 26
Zolliker, Margaret Z...1420 Anita St., G.P.W., Detroit 36
Zubroff, L. S.....752 Fisher Bldg., Detroit 2
Zuelzer, Wolfgang W.....5224 St. Antoine St., Detroit 2
Zukowski, Henry J.....72 N. Deeplands, Detroit 36
Zukowski, Sigmund A.....6626 Van Dyke Ave., Detroit 13

WAXFORD-MISSAUKEE COUNTY MEDICAL SOCIETY

Bentley, M. D.....120 E. Cass, Cadillac
Cardinal, Thos. H.....212 S. Simons, Cadillac
Daugharty, Robert V.....107½ N. Mitchell, Cadillac
Inman, John C.....Lake City
Koepke, Benjamin.....McBain
Lommen, Ralph G.....Manton
Moon, Wm. W.....826 Oak St., Cadillac
Moore, G. P.....107½ N. Mitchell, Cadillac
Murphy, M. R.....120 Cass St., Cadillac
Paye, Philip H.....1628 S. Lake Mitchell Dr., Cadillac
Peterson, Wm. D.....Mesick
Posthuma, Millard.....124 E. Cass St., Cadillac
Purdy, Calvin S. (L).....Buckley
Seger, Dean W.....Lake City
Smith, W. J. (L).....208 E. Harris St., Cadillac
Tornberg, G. C.....124 E. Cass St., Cadillac
Youngman, Douglas C.....Marion

HONORARY MEMBERS

Brake, D. Hale.....Stanton
Burns, Wm. J., LL.B.....606 Townsend St., Lansing
Cline, John W.....3467 Pacific Ave., San Francisco, Cal.
de Kruif, Paul, Ph.D.....“Wake Robin,” Holland
Johnson, Donald E.....207 E. First St., Flint
Upjohn, Lawrence N.....301 Henrietta St., Kalamazoo

Woman's Auxiliary

Directory of Members, 1959

ALLEGAN COUNTY

Brachman, Mrs. A. Peter.....Rte. 1, Allegan
Brown, Mrs. Lewis F.....451 W. Allegan, Otsego
Clark, Mrs. James.....Fennville
Goddard, Mrs. G. B.....Otsego
Keeler, Mrs. Van O.....304 Div. St., Otsego
Miller, Mrs. Kenneth C.....315 Maple St., Saugatuck
Schneiter, Mrs. Harry.....Cutler St., Allegan
Van Der Kolk, Bert.....Hopkins

BAY COUNTY

Alcorn, Mrs. Kent.....2211 McKinley St., Bay City
Alcorn, Mrs. Marshall.....210 Pendleton St., Bay City
Allen, Mrs. Arthur D.....4551 Two Mile Rd., Bay City
Asbury, Mrs. Richard.....2011 S. Sherman St., Bay City
Asline, Mrs. J. Norris,.....310 Valerie Court, Essexville

Boatwright, Mrs. Donald C.....2217 Carroll Rd., Bay City
Bowman, Mrs. David A.....900 Powell Rd., Essexville
Brown, Mrs. George M.....2257 Carroll Rd., Bay City

Campbell, Mrs. Donald A.....203 Plummer St., Essexville
Campbell, Mrs. John.....1838 McKinley Ave., Bay City
Chapin, Mrs. Fredrick J.....2121 Center Ave., Bay City
Cook, Mrs. Hugh.....1526 Helen St., Bay City
Cooper, Mrs. James C.....705 Oak St., Essexville
Cossens, Mrs. Stanley A.....701 Webb Dr., Bay City
Criswell, Mrs. Robert H.....1412 Center Ave., Bay City

Dardas, Mrs. Michael J.....1611 Fourth St., Bay City
DeWaele, Mrs. Paul.....2171 Center Ave., Bay City
Drummond, Mrs. Fred.....Kawkawlin
Dumond, Mrs. V. H.....1700 Fifth St., Bay City

Ellison, Mrs. Alfred.....306 Green Ave., Bay City

Freel, Mrs. John.....2202 Eleventh St., Bay City

Gale, Mrs. H. M.....1900 Center St., Bay City
Gamble, Mrs. Wm. G., Jr.....1303 Fifth St., Bay City
German, Mrs. J. B.....Omer
Geneczko, Mrs. John.....2165 Center Ave., Bay City
Grigg, Mrs. John W.....300 N. Woodbridge, Bay City

Hafford, Mrs. Robert C.....316 Burns St., Essexville
Hagelshaw, Mrs. G. L.....1203 Fifth St., Bay City
Heuser, Mrs. Harold H.....2021 Sixth St., Bay City
Hickner, Mrs. Loren P.....107 Green Ave., Bay City
Horowitz, Mrs. Samuel F.....3 Sovereign Dr., Bay City
Howland, Mrs. Walter.....Pinconning
Huckins, Rodger S.....404 N. Trumble St., Bay City

Jacoby, Mrs. A. H.....2202 Ninth St., Bay City
Jaffe, Mrs. Martin.....705 McDonnell St., Essexville
Jens, Mrs. Otto.....1506 Prairie St., Essexville
Johnson, Mrs. Orlen L.....105 Parkwood Court, Bay City
Jones, Mrs. Culver.....1024 Rosemary Lane, Essexville

Knobloch, Mrs. Howard.....1911 Center Ave., Bay City
Kulinski, Mrs. Eugene J.....601 Ames Court, Bay City

Langin, Mrs. John.....2126 Center Ave., Bay City

McDonnell, Mrs. Walter R.....Pinconning
McEwan, Mrs. John.....2310 Nurmi Dr., Bay City
McGee, Mrs. Harry.....4774 Westgate Dr., Bay City
McGee, Mrs. Peter.....2105 Fifth St., Bay City
McLurg, Mrs. John.....1900 Center Ave., Bay City
McRae, Mrs. L. Douglas.....813 N. Sherman, Bay City
Mayne, Mrs. John C.....1409 Fourth St., Bay City
Medvezky, Mrs. M. J.....314 Hill St., Bay City
Miller, Mrs. Edwin C.....614 Nurmi Court, Bay City
Moore, Mrs. Neal R.....2141 Fifth St., Bay City
Mosier, Mrs. Dwight J.....307 W. Midland St., Bay City

Pearson, Mrs. S. M.....501 W. Jenny St., Bay City
Pelczar, Mrs. Walter.....321 N. Johnson St., Bay City
Perkins, Mrs. R. C.....2118 Fifth St., Bay City
Prophater, Mrs. Robert C.....2696 Westgate Dr., Bay City

Reddick, Mrs. Charles.....2015 Seventh St., Bay City
Reed, Mrs. Wm. S.....2230 Groveland Rd., Bay City
Reuter, Mrs. Clarence.....5561 Gaertner Court, Bay City
Rodda, Mrs. Edward H.....2005 Center Ave., Bay City
Rogers, Mrs. Charles.....81 Tuscola Rd., Bay City

Shafer, Mrs. Harold C.....424 Green Ave., Bay City
Shields, Mrs. Hubert L.....206 Pine St., Essexville
Slattery, Mrs. M. T.....2215 McKinley Ave., Bay City
Staley, Mrs. Hugh.....Omer
Standiford, Mrs. David.....2016 Sixth St., Bay City
Stankey, Mrs. Robert.....310 Pine St., Essexville
Stinson, Mrs. Walter.....4216 Ann Court, Bay City
Stroia, Mrs. L. N.....414 Main St., Essexville
Suter, Mrs. Don E.....1611 Green Ave., Bay City

Taheri, Mrs. Z. E.....2712 S. Westgate Dr., Bay City
Tarter, Mrs. C. S.....1712 Center Ave., Bay City
Taylor, Mrs. Robert S.....4656 Richardson Dr., Bay City
Tompkins, Mrs. Dana.....Pinconning
Treadway, Mrs. Gaylord A.....2263 Carroll Rd., Bay City
Urmston, Mrs. P. R.....1862 McKinley Ave., Bay City

Vail, Mrs. Harry.....1600 Borton St., Essexville

Wilcox, Mrs. James W.....210 Gates St., Bay City
Wilson, Mrs. T. C.....677 Oakwood Beach, Linwood
Wittwer, Mrs. E. A.....14816 Santa Rosa, Detroit
Woodburne, Mrs. H. L.....1107 Borton St., Essexville
Wright, Mrs. Thomas B.....531 Handy Dr., Bay City

Ziliak, Mrs. A. L.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY

Allis, Mrs. Lyle.....W. River Rd., Buchanan
Bailey, Mrs. John.....2150 Samuel, Benton Harbor
Beal, Mrs. Gerald.....Brown School Rd., St. Joseph
Benner, Mrs. Wm.....40-B Lakeshore Dr., St. Joseph
Bleismer, Mrs. A. G.....2108 Morton, St. Joseph
Bronfenbrenner, Mrs. Jack.....1227 Harriet, St. Joseph
Butler, Mrs. Wm.....2216 Lakeview, St. Joseph
Camp, Mrs. Donald.....535 Cherry St., Niles
Cawthorne, Mrs. H. J.....192 Robbins, Benton Harbor
Chickering, Mrs. W. Alan....205 Deleware, Benton Harbor
Conybeare, Mrs. R. C.....234 Orchard, Benton Harbor
Cooper, Mrs. Wm.....Paw Paw Island, Coloma
Cowdery, Mrs. Kenneth H.....1620 Niles, St. Joseph
Crowell, Mrs. R. C.....1920 Sunset, St. Joseph
Elghammer, Mrs. Richard.....1106 Highland, St. Joseph
Elliot, Mrs. J. Colin.....111 Chipewa, Buchanan
Emery, Mrs. Clayton.....1329 Lake Bldg., St. Joseph
Emery, Mrs. Wm. K.....1107 Flanders Place, St. Joseph
Faber, Mrs. Michael.....176 W. Napier, Benton Harbor
Fattic, Mrs. G. B., Jr.....806 S. Third, Niles
Feely, Mrs. Marshall J.....2015 Forres, St. Joseph
Galles, Mrs. James O.....Paw Paw Island, Coloma
Garrett, Mrs. E. L.....3420 N. Fifth, Niles
Gould, Mrs. Samuel.....1865 Ogden, Benton Harbor
Hassan, Mrs. D. Kent.....606 Rynearson, Buchanan
Hayes, Mrs. Thomas P.....821 Lewis, St. Joseph
Heath, Mrs. David.....Box 124-Baldwin Rd., Bridgman
Hershey, Mrs. Noel.....1648 Broadway, Niles
Howard, Mrs. Frank.....680 Pipestone, Benton Harbor
Hudnutt, Mrs. Dean.....332 E. Napier, Benton Harbor
Irgens, Mrs. Edwin R.....1103 Flanders Place, St. Joseph
Johnston, Mrs. Wm.....514 Sutherland, St. Joseph
Kelsall, Mrs. Harvey I.....900 Wolcott, St. Joseph
Kenfield, Mrs. W. John..North Shore Dr., Benton Harbor
Kennedy, Mrs. N. Allan.....582 Pearl, Benton Harbor
King, Mrs. Byron B.....1290 Seneca, Benton Harbor
Klos, Mrs. Henry.....2700 Highland, St. Joseph
Landgraf, Mrs. Robert.....527 W. Main, Niles
Lindenfeld, Mrs. Fredrick H.....443 S. St. Joseph, Niles
Lininger, Mrs. Richard.....2712 Highland Ct., St. Joseph
Manning, Mrs. John T.....1611 Forres, St. Joseph
May, Mrs. A. J.....831 Pipestone, Benton Harbor
McLelland, Mrs. John.....437 Hoover, Benton Harbor
Mesirow, Mrs. Stanley.....1758 Commonwealth, Benton Harbor
Moore, Mrs. Scott.....1649 Broadway, Niles
Ozeron, Mrs. Charles J...1565 Miami Rd., Benton Harbor
Polansky, Mrs. Sanford.....1160 Salem, Benton Harbor
Porter, Mrs. Charles B.....1589 Colfax, Benton Harbor
Pritchard, Mrs. H. M.....2031 U.S. 31 North, Niles
Rague, Mrs. Paul O.....1287 Seneca, Benton Harbor
Ray, Mrs. Dean K.....2019 Langley, St. Joseph
Reagan, Mrs. Robert.....232 Windsor Rd., Benton Harbor
Rice, Mrs. Franklyn G., Jr.....324 N. Fourth, Niles
Richmond, Mrs. Dean M.....218 Sunnybank, St. Joseph
Ruth, Mrs. J. Griswold....507 E. Britain, Bentonn Harbor
Skinner, Mrs. James W.....460 Ridgway, St. Joseph
Smith, Mrs. W. Bertram.....192 Robbins, Benton Harbor
Sowers, Mrs. Bouton....236 Higman Park, Benton Harbor
Strayer, Mrs. John C.....102 Moccasin, Buchanan
Strayer, Mrs. John W.....553 Grant, Niles
Thorup, Mrs. Donald W.....1160 Miami, Benton Harbor
Valentiejus, Mrs. John....Cedar Lane Farm, New Buffalo
Vastine, Mrs. Russell J., Jr.....430 Chicago, Buchanan
Woodford, Mrs. Hackley H.....N. Shore Drive, Benton Harbor
Zick, Mrs. Luther H.....426 Ridgway, St. Joseph

BRANCH COUNTY

Aldrich, Mrs. Napier S.....162 Marshall St., Coldwater
Bacon, Mrs. Charles R.....59 N. Circle Dr., Coldwater
Bailey, Mrs. James E.....10 Carlyle Ave., Coldwater
Beck, Mrs. P. C.....235 N. Walker St., Coldwater
Buell, Mrs. Martin F.....407 N. Broadway, Union City
Coates, Mrs. Carl.....R.R.#1, Quincy
Culver, Mrs. B. W.....72 Division St., Coldwater
Culver, Mrs. Dean T.....78 Division St., Coldwater
Fraser, Mrs. Robert J.....52 Fairfield Dr., Coldwater
Gist, Mrs. Lemuel I.....80 N. Sprague St., Coldwater
Gomley, Mrs. Henry G.....435 N. Chicago, Bronson
Hamilton, Mrs. Earl....State Home and Training School, Coldwater
Harris, Mrs. Donald.....25 N. Fremont, Coldwater
Heffelfinger, Mrs. John C.....150 Liberty St., Coldwater
Leitch, Mrs. Robert M.....R.R. #2, Union City
Mitchell, Mrs. Harold....State Home and Training School, Coldwater
Mooi, Mrs. H. R.....20 Fairfield Dr., Coldwater
Moss, Mrs. Harvey L.....86 W. Clarke St., Coldwater
Nettleman, Mrs. Wm. E.....136 E. Pearl St., Coldwater
Olmstead, Mrs. Kenneth L.....70 Marshall St., Coldwater
Rennell, Mrs. E. J.....State Home and Training School Coldwater
Southworth, Mrs. Robert.....171 Grand St., Coldwater
Thomas, Mrs. James A.....390 E. Chicago, Coldwater
Wade, Mrs. Robert L.....144 E. Chicago, Coldwater
Walton, Mrs. N. J.....61 E. Chicago, Quincy
Weidner, Mrs. Harold R.....16 S. Fremont, Coldwater

CALHOUN COUNTY

Albright, Mrs. Arnold A...R.R. #3 Box 380, Battle Creek
Allen, Mrs. Richard H.....177 Orchard Ave., Battle Creek
Amos, Mrs. Norman H.....191 Waubascon Rd., Battle Creek
Bakken, Mrs. Richard L.....91 Sherman Rd., Battle Creek
Barden, Mrs. Stuart P.....R.R. #6 Box 912, Battle Creek
Baribeau, Mrs. Roy H.....1003 Capital Ave. S.W. Battle Creek
Becker, Mrs. Harry F.....R.R. #3 Box 303A, Battle Creek
Beuker, Mrs. Herman....501 N. Kalamazoo, Battle Creek
Bodine, Mrs. Harold R.....396 Country Club Dr., Battle Creek
Bonifer, Mrs. Phillip P.....93 Clinton Dr., Battle Creek
Braverman, Mrs. A. H.....Veterans Administration Hosp., Battle Creek
Brown, Mrs. Robert W.....24 Country Club Dr., Battle Creek
Byland, Mrs. Nils O.....107 Greenwood Ave., Battle Creek
Campbell, Mrs. Jack S.....119 Shadywood Lane, Battle Creek
Campbell, Mrs. Richard J...209 Emmett St., Battle Creek
Capron, Mrs. Manley J., Jr...114 College St., Battle Creek
Capron, Mrs. Manley J., Sr...102 Ann Ave., Battle Creek
Chandler, Mrs. Edward M.....55 N. Broad St., Battle Creek
Chynoweth, Mrs. Wm. R.....88 Ann Ave., Battle Creek

Coakes, Mrs. Jack E.....716 Gorham St., Battle Creek
Colquhoun, Mrs. Graham F.....12 Country Club Dr., Battle Creek

Diamante, Mrs. Paul J.....224 WahWahTaySee Way, Battle Creek
D'Versa, Mrs. Gene.....705 Orchard Dr., Albion

Ferazzi, Mrs. Patrick S.....309 Bittersweet Lane, Battle Creek
Finch, Mrs. Duward L.....72 Jennings Rd., Battle Creek
Fisher, Mrs. Robert E.....1501 W. Michigan, Battle Creek
Fraser, Mrs. Robert H.....198 Fremont St., Battle Creek
Funk, Mrs. L. D.....133 W. Burr Oak, Athens

Giddings, Mrs. Allan M.....Battle Creek Sanitarium, Battle Creek
Graubner, Mrs. Franklin.....707 N. Linden, Marshall
Griffith, Mrs. Jack C.....197 Beckwith Dr., Battle Creek

Hansen, Mrs. Edwin L.....47 Orchard Pl., Battle Creek
Hansen, Mrs. Harvey C.....80 Country Club Dr., Battle Creek
Herman, Mrs. Louis.....Veterans Adm. Hospital, Battle Creek
Hibbs, Mrs. Donald K.....117 Sunnyside Dr., Battle Creek
Hill, Mrs. C. R.....210 Chestnut St., Battle Creek
Holton, Mrs. Benjamin G...78 Merwood Dr., Battle Creek
Hubly, Mrs. James W.....446 Country Club Dr., Battle Creek
Humphrey, Mrs. Arthur.....788 Country Club Dr., Battle Creek

Jeffery, Mrs. James R.....622 Ann Ave., Battle Creek
Jones, Mrs. Aubrey H.....513 W. Michigan Ave., Marshall
Jones, Mrs. Ernest F.....175 Island, Battle Creek

Keagle, Mrs. Leland R.....41 Garrison, Battle Creek
Kelleher, Mrs. George T.....65 Sherman Rd., Battle Creek
Kimball, Mrs. Arthur S., Jr.....196 Capital Ave. N.E., Battle Creek
Kinde, Mrs. Matthew R.....The Inn, Battle Creek
Kingsley, Mrs. A. F.....33 Byron, Battle Creek
Kingsley, Mrs. Paul C.....29 Woodmer Lane, Battle Creek
Klopp, Mrs. Edward J.....535 Capital Ave. N.E., Battle Creek

LaFrance, Mrs. N. F.....Veterans Adm. Hospital Battle Creek
Lam, Mrs. Francis L.....151 Sunnyside Dr., Battle Creek
Levine, Mrs. Samuel L.....Veterans Adm. Hospital Battle Creek
Levy, Mrs. Joseph.....343 N. Orchard Pl., Battle Creek
Lowe, Mrs. Kenneth H.....R.R. #1 Box 381, Augusta
Lowe, Mrs. Stanley T.....12 Hiawatha Dr., Battle Creek

Martin, Mrs. Walter F.....608 The Inn, Battle Creek
McCuaig, Mrs. Alfred G.....145 Pleasant View Dr., Battle Creek
Meleges, Mrs. Fredrick J.....314 N. Orchard Pl., Battle Creek
Morrison, Mrs. Donald B.....25 Crest Dr., Battle Creek
Mullenmeister, Mrs. Hugh F.....275 Capital Ave. N.E., Battle Creek
Muatard, Mrs. Russell L.....712 Country Club Dr., Battle Creek

Orr, Mrs. Eli H.....121 N. 19th St., Battle Creek

Parkinson, Mrs. Charles E.....R.R. #3 Box 605. Battle Creek
Patrick, Mrs. Gilbert T.....16 Hiawatha Dr., Battle Creek
Pearson, Mrs. Donald J.....32 Hiawatha Dr., Battle Creek
Power, Mrs. John R.....231 Fremont, Battle Creek

Robbert, Mrs. John.....164 Francis Dr., Battle Creek
Robin, Mrs. Hugh.....237 Fremont, Battle Creek
Royer, Mrs. Clark W.....125 Sunnyside Dr., Battle Creek
Royer, Mrs. W. A.....100 N. Union St., Battle Creek
Ryan, Mrs. Charles J.....540 Country Club Dr., Battle Creek

Schwarz, Mrs. Frank W.....31 Orchard Pl., Battle Creek
Shellenberger, Mrs. Herbert M.....131 W. Hanover, Marshall
Shipp, Mrs. Leland P.....611 Jennings Landing, Battle Creek
Simpson, Mrs. Robert S.....135 Shadywood Lane, Battle Creek
Slagle, Mrs. George W.....1702 Capital Ave. S.W., Battle Creek
Sleight, Mrs. James.....R.R. #3 Box 64, Battle Creek
Sleight, Mrs. R. D.....108 Frelinghuysen, Battle Creek
Smith, Mrs. Joseph S.....Veterans Adm. Hospital, Battle Creek
Stadle, Mrs. Wendell H.....607 Jennings Landing, Battle Creek
Stephenson, Mrs. C. Douglas.....121 Laurel Dr., Battle Creek
Stiefel, Mrs. Richard A.....260 WahWahTaySee Way, Battle Creek

Tazelaar, Mrs. Myron A.....601 Hill Rd., Marshall

VanCamp, Mrs. Elijah.....16 Everett St., Battle Creek
Verity, Mrs. Lloyd E.....64 St. Joseph Lane, Battle Creek

Walters, Mrs. John F.....265 Sherman Rd., Battle Creek
Walters, Mrs. Wm. D.....R.R. #3 Box 605A, Battle Creek
Wemmer, Mrs. Keith S.....95 Barney Blvd., Battle Creek
Wencke, Mrs. Carl G.....127 Park Pl., Battle Creek
Winslow, Mrs. Sherwood B.....20 Hiawatha Dr., Battle Creek
Worgess, Mrs. Duane R.....205 W. Territorial Rd., Battle Creek

Yannitelli, Mrs. S. A.....28 Woodmer Lane, Battle Creek

Zaplitny, Mrs. Roman B.....34 Ardmoor Dr., Battle Creek
Zelinsly, Mrs. Thomas.....122 Fremont, Battle Creek
Zheutlin, Mrs. Bertram.....164 W. Hamilton Lane, Battle Creek
Zindler, Mrs. George A.....6375 Lacey Rd., Lacey

CHIPPEWA COUNTY

Allott, Mrs. Hugh R...607 Sheridan Dr., Sault Ste. Marie
Blain, Mrs. James G.....130 Park Pl., Sault Ste. Marie
Blair, Mrs. Milton H.....811 Summitt, Sault Ste. Marie
Clausen, Mrs. Claire H.....3108 Lakeshore Dr., Sault Ste. Marie
Cantwell, Mrs. Earl K.....907 Summitt, Sault Ste. Marie
Finlayson, Mrs. Donald D.....903 Prospect Sault Ste. Marie
Hamel, Mrs. Herbert.....120 Keightley, St. Ignace
Harrington, Mrs. H. M.....3308 Lakeshore Dr., Sault Ste. Marie
Howe, Mrs. Donnell C.....3128 Lakeshore Dr., Sault Ste. Marie
Mackie, Mrs. T. B.....Mission Rd., Sault Ste. Marie
Mertaugh, Mrs. Wm. F.....408 Cedar St., Sault Ste. Marie
Montgomery, Mrs. Benj. T.....U.S. #2, Sault Ste. Marie
Rhind, Mrs. Earl S.....Riverside Dr., Sault Ste. Marie
Scott, Mrs. D. F.....502 Ravine, Sault Ste. Marie
Sudranski, Mrs. Herbert F.....312 Emmett, Sault Ste. Marie
Trapasso, Mrs. Tony J.....Mission Rd., Sault Ste. Marie
Venier, Mrs. Anton G.....1021 Parnell, Sault Ste. Marie
Wallen, Mrs. LeRoy J...410 Dawson St., Sault Ste. Marie
Yale, Mrs. I. V.....408 Carrie, Sault Ste. Marie

CLINTON COUNTY

Bennett, Mrs. George W.....203 W. Main, Elsie
Cook, Mrs. Bruno.....Westphalia
Elliott, Mrs. Bruce R.....211 E. First St., Ovid
Geib, Mrs. O. P.....Carson City
Grost, Mrs. James.....110 S. Oakland, St. Johns
Henthorn, Mrs. A. C.....105 S. Ottawa, St. Johns
McWilliams, Mrs. Wm. B.....210 S. Maple, Maple Rapids
Russell, Mrs. Sherwood.....104 N. Oakland, St. Johns
Sheline, Mrs. V. Lowell.....S. St. Johns, Ithaca
Slagh, Mrs. E. M.....217 S. Ovid, Elsie
Smith, Mrs. F. W.....205 W. State St., St. Johns
Steller, Mrs. P. F.....St. Johns S.E.
Stephenson, Mrs. W. F.....501 E. Walker, St. Johns

DELTA-SCHOOLCRAFT COUNTIES

Anderson, Mrs. Francis.....1012 S. 11th, Escanaba
Delhin, Mrs. James.....1225 Minnesota, Gladstone
Frenn, Mrs. Nathan.....1701 10th Ave. So., Escanaba
Gross, Mrs. Louis.....823 Lakeshore Dr., Escanaba
Jenke, Mrs. Albert.....738 Lakeshore Dr., Escanaba
LeMire, Mrs. Donald.....1811 Lakeshore Dr., Escanaba
LeMire, Mrs. Wm.....318 Lakeshore Dr., Escanaba
Lindquist, Mrs. Norman....1815 Lakeshore Dr., Escanaba
Maniaci, Mrs. George.....1224 Wisconsin, Gladstone
McInerney, Mrs. Thomas....1616 16th Ave. So., Escanaba
Nagy, Mrs. Charles.....Box 108, Bark River
Olson, Mrs. Carl.....619 Minneapolis, Gladstone
Ryde, Mrs. Robert.....750 Lakeshore Dr., Escanaba
Waters, Mrs. Duane.....358 Lake St., Manistique
Wehner, Mrs. Merle.....101 Lake St., Manistique
Whipple, Mrs. Arno.....315 Ogden, Escanaba

DICKINSON-IRON COUNTIES

Addison, Mrs. Earl.....Crystal Falls
Alexander, Mrs. W. H.....411 E. C St., Iron Mountain
Anderson, Mrs. D. T.....408 Hamilton, Iron Mountain
Carlson, Mrs. Ralph.....615 E. C St., Iron Mountain
Cecconi, Mrs. R. D.....520 W. D St., Iron Mountain
Cooper, Mrs. C. A.....407 3rd St., Stambaugh
Dittrich, Mrs. R. J.....732 Hamilton, Iron Mountain
Gladstone, Mrs. Wm.....626 Saginaw, Norway
Huron, Mrs. W. H.....215 W. E St., Iron Mountain
Irvine, Mrs. L. E.....326 Genesee, Iron River
McEachran, Mrs. H. D.....401 E. C St., Iron Mountain
Palm, Mrs. E. T.....412 Superior, Crystal Falls
Retallick, Mrs. R. C.....621 W. Genesee, Iron River
Schmutzler, Mrs. Walter.....625 Wilson, Kingsford
Schroeder, Mrs. John....1111 Stockbridge, Iron Mountain
Smith, Mrs. D. R.....817 W. Brown, Iron Mountain
Werner, Mrs. W. A.....408 W. Fleshien, Iron Mountain

EATON COUNTY

Arner, Mrs. Fred L.....703 W. Capitol, Bellevue
Brown, Mrs. B. Phillip.....337 S. Cochran, Charlotte
Carothers, Mrs. Daniel.....243 S. Sheldon, Charlotte
Cook, Mrs. J. Max.....404 W. Harris, Charlotte
Deland, Mrs. C. LeRoy.....8333 Hall Rd., Bellevue
Hannah, Mrs. Harry W.....Clinton Trail, Charlotte
Landick, Mrs. Robert.....138 S. Bostwick, Charlotte
Matthews, Mrs. Roy.....Battle Creek Rd., Charlotte
Meinke, Mrs. Albert H.....229 Holmes St., Eaton Rapids
Meyers, Mrs. A. W.....229 Potterville Rd., Potterville
Riley, Mrs. Joseph.....815 N. Sheldon, Charlotte
Sevener, Mrs. Lester G.....608 W. Stoddard, Charlotte
Sherman, Mrs. Eber B.....612 State St., Eaton Rapids
Van Ark, Mrs. Bert.....511 Hale St., Eaton Rapids
Van Ark, Mrs. Herman.....410 Blake St., Eaton Rapids
Willits, Mrs. Clayton O.....127 Upland, Charlotte

GENESEE COUNTY

Adams, Mrs. Burnell Howard.....609 S. Lynch, Flint
Adams, Mrs. Chester Howard.....610 Grand Blanc Rd., Flint
Anderson, Mrs. Harley Harvey.....8212 N. Jennings Rd., Mt. Morris
Anderson, Mrs. John Lewis.....6227 River Rd., Flushing
Anderson, Mrs. Robt. Edward.....3002 Mason, Flint
Andrews, Mrs. Nelson A. C.....310 E. Main, Flushing
Anthony, Mrs. George E.....912 Beard St., Flint
Backus, Mrs. Glenn R.....3131 Westwood Pky., Flint
Baird, Mrs. Winston C.....1818 Ramsey, Flint
Bald, Mrs. Fredrick W.....1502 Linwood, Flint
Barbour, Mrs. Fleming A.....2015 Lincoln Dr., Flint
Baske, Mrs. Franklin W.....923 Maxine, Flint
Batdorf, Mrs. John W.....1925 Park Forest Dr., Flint
Bateman, Mrs. Lawrence G.....1708 E. Second St., Flint
Beck, Mrs. Douglass R.....4252 Becher Rd., Apt. D, Flint
Becker, Mrs. Eugene B.....2214 Adams Ave., Flint
Benson, Mrs. John C.....1410 E. Court St., Flint
Berman, Mrs. Harry.....827 Beard, Flint
Bernstein, Mrs. Eli N.....1809 Windsor Lane, Flint
Best, Mrs. John A.....3712 Brownell Blvd., Flint
Beyer, Mrs. George D.....3345 Elmwood, Clio
Bird, Mrs. Wm. G.....133 Odette, Flint
Bishop, Mrs. Donald L.....1024 Woodside Dr., Flint
Bogart, Mrs. Leon M.....1125 South Dr., Flint
Boles, Mrs. Wm. P.....2946 Circle Dr., Flint
Branch, Mrs. Hira E.....1014 Woodside, Flint
Bryant, Mrs. Donald R.....3109 Mallery, Flint
Buchanan, Mrs. Gerald.....3258 M-87, Holly
Buchanan, Mrs. Wm. F.....902 LeRoy S., Fenton
Chambers, Mrs. Myrton S.....3402 Westwood Pky., Flint
Charters, Mrs. John.....11089 Fenton Rd., Fenton
Chase, Mrs. Wm. D.....1318 N. Ballenger Hwy., Flint
Clark, Mrs. Robert L.....2202 Thomas, Flint
Collins, Mrs. James I.....G 1128 N. Dye Rd., Flint
Colwell, Mrs. Clifford W.....2011 Briar Hill, Flint
Conover, Mrs. George V.....G 1152 Dye Rd., Flint
Conover, Mrs. McClellan B.....1209 Kensington, Flint
Conover, Mrs. Thaddus S.....2112 Radcliffe, Flint
Cook, Mrs. Henry.....1819 Chelsea Circle, Flint
Coriasso, Mrs. Louis B.....614 Odette, Flint

Credille, Mrs. Barney A.....2020 E. Second, Flint
Curry, Mrs. George J.....3021 Westwood Pky., Flint
Curtin, Mrs. John.....915 E. Court, Flint
Cutler, Mrs. Garnet C.....3130 Concord, Flint

Davis, Mrs. Robert C.....407 Fremont, Flint
Dawson, Mrs. Ralph E.....1617 Linwood, Flint
Day, Mrs. John M.....810 S. Ballenger, Apt. 26, Flint
DelZingo, Mrs. Nicholas.....328 N. Main, Davison
Dickstein, Mrs. Bernard....1110 Hamilton Ave. W., Flint
Dimond, Mrs. Edwin.....5046 McCandlish Rd., Grand Blanc
Dodds, Mrs. Max.....1718 Kenwood, Flint
Dooley, Mrs. James.....2019 Gold Ave., Flint
Dorsey, Mrs. Philip W.....1334 W. Dye Rd., Flint
Dowling, Mrs. George.....G 4107 N. Elm, Flushing
Drewyer, Mrs. Glenn E.....5327 W. Reid Rd., Grand Blanc
Dykewicz, Mrs. Richard A.....3221 Clement, Flint

Eaton, Mrs. Wayne L.....1317 Riverdale, Flint
Eichhorn, Mrs. Ernest M.....1301 Riverdale Dr., Flint
Eickhorst, Mrs. Thomas N.....2562 Nolen Dr., Flint
Elliott, Mrs. Hardie B.....2380 Nolen Dr., Flint
Engelman, Mrs. Raymond M.....3710 Sherwood, Flint
Ettinger, Mrs. Ralph.....111 S. Walnut, Fenton

Fan, Mrs. Quincay C.....2526 Mountain, Flint
Farah, Mrs. Ben S.....342 Bradley, Apt. 142B, Flint
Farhat, Mrs. Maynard M.....1901 Hampden Rd., Flint
Fee, Mrs. Manson G.....1002 Maxine, Flint
Finkelstein, Mrs. Theodore.....401 Lafayette, Flint
Flynn, Mrs. Southard T.....2354 Nolen Dr., Flint
Forrer, Mrs. Graydon R.....408 Balsam Dr., Davison
Gelenger, Mrs. Stephen M.....2125 Detroit St., Flint
Gleason, Mrs. Notery A.....1309 Blanchard, Flint
Gumpper, Mrs. Charles R.....G 5459 Miller Rd., Flint
Golden, Mrs. H. Maxwell.....1511 Woodcroft St., Flint
Gorne, Mrs. Saul S.....1009 Woodside Dr., Flint
Grady, Mrs. Donald R.....1515 Woodside Dr., Flint
Griffin, Mrs. Ernest P.....1505 Arrow Lane, Flint
Grover, Mrs. Harold F.....3509 Norwood Dr., Flint
Guile, Mrs. Gurdon S.....1621 Dupont, Flint
Gutow, Mrs. Isadore H.....3020 Westwood Pky., Flint
Gutow, Mrs. Julius J.....3759 Sunset Dr., Flint
Guyon, Mrs. Joseph F.....G-1387 Cass Ave., Flint

Hackley, Mrs. Richard D.....422 Grace St., Flint
Hague, Mrs. Robert F.....8231 River Rd., Flushing
Harper, Mrs. Alexander W.....712 Thomson, Flint
Harper, Mrs. Robert H.....713 Thomson, Flint
Hauser, Mrs. Fredrick V.....1027 Manning Ct., Flint
Hawkins, Mrs. James E.....1914 Chelan, Flint
Hennessy, Mrs. Charles R.....1920 Hampden Rd., Flint
Hill, Mrs. Wm. T.....7212 Flushing Rd., Flushing
Hiscock, Mrs. Harold H.....2021 Briar Hill, Flint
Hockman, Mrs. Thomas A.....1513 Winona, Flint
Hodges, Mrs. Frank V.....1222 Vincent, Flint
Hooper, Mrs. Kendall.....3460 Hawthorne Dr., Flint
Hubbard, Mrs. Wm. B.....1205 Maxine, Flint
Hufton, Mrs. Wilfred L.....2546 Nolen Dr. Flint
Hurd, Mrs. Clayton.....300 Robert St., Fenton
Irish, Mrs. Lawrence R.....348 Sheffield St., Flint
Jaarsma, Mrs. Raymond A.....928 Woodside Dr., Flint
James, Mrs. Robert E.....1860 Hampden Rd., Flint
Jermstad, Mrs. Robert.....2121 Glendale, Flint
Johnson, Mrs. Frank D.....235 Hamilton Ave., Flint
Johnson, Mrs. Raymond E.....5173 W. Reid Rd., Swartz Creek
Judd, Mrs. Alvin E.....2912 Circle Dr., Flint

Kaufman, Mrs. Lewis D.....1617 Neome Dr., Flint
Kimbrough, Mrs. Clarence.....1402 S. Saginaw, Flint
Kitto, Mrs. Harold J.....902 Stockdale, Flint
Knapp, Mrs. Donald D.....712 Mann, Flint
Knapp, Mrs. Wm. D.....1138 Woodside, Flint
Kretchmar, Mrs. Arthur H.....G-1135 N. Dye Rd., Flint
Kurtz, Mrs. John.....G-2301 W. Reid Rd., Flint

Leach, Mrs. Jesse L.....1838 Owen, Flint
LeMieux, Mrs. Leslie L.....2749 Thomas, Flint
Lewis, Mrs. Thomas.....4047 Mitchell Dr., Flint
Limbach, Mrs. David R.....1801 Chelsea Circle, Flint
Lindman, Mrs. Thomas C.....508 Fremont, Flint
Livesay, Mrs. Jackson E.....702 Blanchard Ave., Flint
Lundsen, Mrs. Richard M.....3046 Canterberry, Flint
Lyttle, Mrs. Sydney N.....3401 Concord, Flint

MacGregor, Mrs. Delbert M.....722 W. Hamilton, Flint
MacKenzie, Mrs. John.....5397 Miller Rd., Flint
Macksood, Mrs. Joseph A.....3340 Parkside Dr., Flint
Mangelsdorf, Mrs. Carl H.....4122 Brownell, Flint
Markunas, Mrs. Paul J.....5637 Leslie Ct., Flint
Marshall, Mrs. Wm.....Stall Rd., P.O. Box 885, Olympia, Washington
Martin, Mrs. James A.....822 S. Leroy, Flint
Mathias, Mrs. Berton J.....3905 Proctor, Flint
McLeod, Mrs. Kenneth W.....1001 Welch Blvd., Flint
McMurray, Mrs. Richard J.....3018 Begole, Flint
McTaggart, Mrs. David.....926 Beard, Flint
Mendrek, Mrs. Henry.....G-4323 Fenton Rd., Flint
Michael, Mrs. Sidney R.....922 Welch Blvd., Flint
Michels, Mrs. Robert M...409 N. McKinley Rd., Flushing
Michelson, Mrs. Richard B.....510 Kensington, Flint
Miltich, Mrs. Anthony L.....2222 Colfax, Flint
Miner, Mrs. Fredrick B.....1000 E. Seventh, Flint
Moore, Mrs. Glenn E.....1505 Durand, Flint
Moore, Mrs. Kenneth B.....2224 Pierce, Flint
Moore, Mrs. Wesley P.....1519 Lapeer, Flint
Morrison, Mrs. Wm. H.....1302 E. Court, Flint
Morrissey, Mrs. Vaughan H.....101 Stockdale, Flint
Mosier, Mrs. Edward C.....1730 Overhill, Flint
Murphy, Mrs. E. Grant.....1825 Chelsea Circle, Flint

Neiswander, Mrs. Paul L.....2552 Thomas, Flint
Nicholls, Mrs. Wm. W.....3918 Seneca, Flint
Nitz, Mrs. Donald.....3337 W. Vienna, Clio

Odle, Mrs. Ira D.....201 Welch Blvd., Flint
Orr, Mrs. John W.....13396 Enid Blvd., Fenton
Osher, Mrs. Seymour L.....2113 E. Second, Flint

Parliament, Mrs. Burt A.....314 Ferndale, Flint
Paul, Mrs. Joseph E.....1650 Miller Rd., Flint
Pfeifer, Mrs. A. C.....12205 N. Saginaw St., Mt. Morris
Phelps, Mrs. Lynn.....10122 Janaroy Ct., Goodrich
Phillips, Mrs. Robert W.....2613 Thomas, Flint
Pickering, Mrs. Woodrow H.....1602 N. Ballenger, Flint
Polich, Mrs. John J.....2119 Radcliffe, Flint
Portney, Mrs. Jack E.....2509 E. Court, Flint
Pougnet, Mrs. Wm. D.....810 S. Ballenger Apts., Flint
Preston, Mrs. Otto J.....1315 Maxine, Flint
Prior, Mrs. Richard W.....707 Park St., Fenton
Purcell, Mrs. F. L.....6273 Westview Dr., Grand Blanc

Quin, Mrs. John, Jr.....417 Greenfield, Flint

Rapport, Mrs. Richard L.....2306 Miller Rd., Flint
Rawling, Mrs. John S.....1813 Bayberry, Flint
Rawlings, Mrs. Mott.....1601 Neome Dr., Flint
Reid, Mrs. John H.....627 Campbell, Flint
Richeaon, Mrs. Vern N.....702 W. Hamilton, Flint
Reith, Mrs. George F.....G-6452 Davison Rd., Flint
Rowe, Mrs. John B.....1005 Maxine, Flint
Ruiney, Mrs. Max.....323 Ferndale, Flint
Rundles, Mrs. Walter Z., Jr.....607 Roome Ct., Flint
Rundles, Walter Z., Jr.....G-6573 Flushing Rd., Flushing

Sandberg, Mrs. Russell G.....2030 Pierce, Flint
Scavarda, Mrs. Charles J.....2101 E. Court, Flint
Schiff, Mrs. Benton A.....3040 Parkside Dr., Flint
Schmidlin, Mrs. Robert W...4005 Greenbrook Lane, Flint
Schroeder, Mrs. Paul.....1422 Woodhale Dr., Flint
Schultz, Mrs. John S.....1397 Sun Terrace Dr., Flint
Schwartz, Mrs. John M.....2920 Dupont, Flint
Seven, Mrs. Philip G.....2301 Cummings, Flint
Seymour, Mrs. George D.....2411 Ashland Circle, Clio
Shantz, Mrs. Leighton O...1497 Country View La., Flint
Sheeran, Mrs. Daniel H.....610 S. Vernon, Flint
Sherwood, Mrs. Frederick A.....3017 Menominee, Flint
Shipman, Mrs. Charles W.....602 Kensington, Flint
Simoni, Mrs. Lewis E.....702 Kensington, Flint
Sirna, Mrs. Anthony R.....2709 Thomas, Flint
Smith, Mrs. Eugene C.....916 Woodside Park Dr., Flint
Smith, Mrs. Harold O.....1952 Miller Rd., Flint
Smith, Mrs. Maurice J.....1521 Cromwell, Flint
Sniderman, Mrs. Benjamin F.....3738 Norwood Dr., Flint

Sorkin, Mrs. Morris L.....4001 Greenbrook Lane, Flint
Sorkin, Mrs. Samuel S.....1919 Miller Rd., Flint
Sparks, Mrs. Harvey V...G-5614 Sugar Bush Lane, Flint
Steffe, Mrs. Ralph S.....1618 Linwood, Flint
Steinman, Mrs. Floyd H.....2418 Nolen Dr., Flint
Stevens, Mrs. Phillip K.....468 Commonwealth, Flint
Stevenson, Mrs. Wm. W.....1521 Arrow Lane, Flint
Stroup, Mrs. Clayton K.....G-5208 E. Court, Flint
Sullivan, Mrs. McDermott R.....2226 Concord, Flint
Thompson, Mrs. Charles A.....4034 Donnelly, Flint
Thompson, Mrs. Alvin.....1601 Cromwell, Flint
Thompson, Mrs. Jack W.....3325 Hawthorne, Flint
Tuuri, Mrs. Arthur L.....1707 Greenway, Flint
Van Harn, Mrs. Raymond S.....104 Welch Blvd., Flint
Varney, Mrs. Howard L.....2564 Thomas, Flint
Vary, Mrs. Edward P.....2472 Nolen Dr., Flint
Wade, Mrs. Franklin V.....3420 Clement, Flint
Ware, Mrs. Frank A.....902 Woodside Dr., Flint
Wark, Mrs. David R.....1315 Detroit St., Flint
Weber, Mrs. Robert M.....2602 N. Stevenson, Flint
Webster, Mrs. Robert M.....1915 Penbrook Lane, Flint
Wentworth, Mrs. John E.....1615 Chevrolet Ave., Flint
Wheeler, Mrs. J. D.....2470 Nolen Dr., Flint
White, Mrs. Herbert T.....1620 Mason St., Flint
Williams, Mrs. Wm. S.....5216 S. Genesee Rd., Flint
Willoughby, Mrs. Gordon L.....2960 Mallery, Flint
Willoughby, Mrs. Leslie....1127 S. Water St., Marine City
Wills, Mrs. Thomas N...G-1360 N. Packard Rd., Davison
Winchester, Mrs. Walter H.....801 E. Ninth, Flint
Woughter, Mrs. Harold W.....3440 Hawthorne, Flint
Wright, Mrs. Donald R.....403 W. Court St., Flint

GOGEBIC COUNTY

Benetti, Mrs. Arthur F.....Wakefield
Franck, Mrs. J. R.....Wakefield
Gorrilla, Mrs. A. C.....516 N. Lawrence St., Ironwood
Harrington, Mrs. Rex R.....104 E. Ridge St., Ironwood
Hogue, Mrs. Harold.....Ewen
Keskey, Mrs. Theodore.....205 W. Coolidge, Ironwood
McEnroe, Mrs. John H.....7 Newport Heights, Ironwood
O'Brien, Mrs. A. J.....419 E. Vaughn St., Ironwood
Santini, Mrs. Florian J.....615 N. Lowell St., Ironwood
Stevens, Mrs. Charles.....414 N. Lowell St., Ironwood
Tressel, Mrs. H. A.....308 Sunday Lake St., Wakefield
Wacel, Mrs. Wm. H.....809 Sunset Rd., Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE COUNTIES

Beall, Mrs. John G.....R.F.D. No. 2, Box 799B, Traverse City
Behan, Mrs. Gerald W.....Box C, Traverse City
Bolan, Mrs. Ellis.....Suttons Bay
Brownson, Mrs. Jay J.....Kingsley
Brownson, Mrs. Kneale.....1140 Peninsula Dr., Traverse City
Bushong, Mrs. B. B.....318 Wellington, Traverse City
Clark, Mrs. Charles D.....6874 Peninsula Dr., Traverse City
Cline, Mrs. T. N.....Rt. No. 5, Box 611, Traverse City
Cline, Mrs. Warren.....1629 S. High St., Traverse City
Edmonds, Mrs. W. T.....Rt. No. 1, Williamsburg
Ellis, Mrs. Claude.....Box 68, Suttons Bay
Ferguson, Mrs. J.....Box C, Traverse City
Fiebing, Mrs. Jack.....1109 Bay St., Traverse City
Fishbeck, Mrs. Wm. A.....212 Hilltop, Traverse City
Gallagher, Mrs. Wm.....Box C, Traverse City
Haberlein, Mrs. Charles..701 Monroe Ave., Traverse City
Hall, Mrs. James W.....1431 Peninsula Dr., Traverse City
Hamilton, Mrs. Earl E.....627 Ahgosa Trail, Traverse City
Huene, Mrs. Nevin.....508 State St., Traverse City
Jerome, Mrs. J. T.....609 Sixth St., Traverse City
Kitti, Mrs. Wm.....Box 186, Kalkaska
Kyselka, Mrs. Harry.....E. Long Lake Rd., Traverse City
Lawton, Mrs. F. L.....540 W. Seventh, Traverse City
Lemen, Mrs. C. E.....521 Washington, Traverse City
Lossman, Mrs. Robert.....Rt. 2, 6475 Deepwater Pt., Williamsburg
McClay, Mrs. Adam C.....6330 Peninsula Dr., Traverse City
Merritt, Mrs. Harry.....112½ E. Front St., Traverse City
Michael, Mrs. Stanley L.....503 Ottawa, Elk Rapids
Milliken, Mrs. John....1435 Peninsula Dr., Traverse City
Nickels, Mrs. M. M.....R.R. 34, Box 121, Traverse City
Osterlin, Mrs. Mark....6223 Peninsula Dr., Traverse City
Otto, Mrs. D. L.....225 Center Lane, Traverse City
Pike, Mrs. Donald.....East Bay Shore Rd., Traverse City
Power, Mrs. Frank.....521 Sixth St., Traverse City
Salon, Mrs. Dayton D.....216 S. Elmwood Ave., Traverse City
Scott, Mrs. John.....536 Washington, Traverse City
Sladek, Mrs. E. F.....224 W. 7th St., Traverse City
Sommerness, Mrs. Martin D.....Box C, Traverse City
Sorum, Mrs. F. T.....Box C, Traverse City
Steele, Mrs. Wm. M.....2017 E. Front St., Traverse City
Steffey, Mrs. Jos. C...3348 S. Garfield Rd., Traverse City
Stokes, Mrs. G. Edward.....425 Sixth St., Traverse City
Swartz, Mrs. F. G.....612 Sixth St., Traverse City
Sweeny, Mrs. Bernard.....Rt. 1, Williamsburg
Thirlby, Mrs. E. L.....520 Sixth St., Traverse City
Thirlby, Mrs. Richard.....1315 Wayne St., Traverse City
Wagener, Mrs. Creighton.....1802 E. Front St., Traverse City
Weih, Mrs. Jack.....118½ E. Front St., Traverse City
Weitz, Mrs. Harry.....529 Monroe St., Traverse City
Wilcox, Mrs. Paul.....526 W. 10th St., Traverse City
Wright, Mrs. Johnson....1027 E. Front St., Traverse City
Zielke, Mrs. Irwin H.....515 N. Elmwood, Traverse City
Zimmerman, Mrs. J. C.....606 N. Elmwood, Traverse City

GRATIOT-ISABELLA-CLARE COUNTIES

Barstow, Mrs. Donald.....215 W. Saginaw, St. Louis
Barstow, Mrs. Wm.....215 W. Saginaw, St. Louis
Bedo, Mrs. Andrew.....802 Gordon, Mt. Pleasant
Davis, Mrs. Lionel L.....314½ S. Brown, Mt. Pleasant
Douglas, Mrs. Kenneth W.....Mt. Pleasant State Home and Training School, Box 32, Mt. Pleasant
Hammerberg, Mrs. Kuno.....622 McEwan, Clare
Hedges, Mrs. Frank W.....Edmore
Hoogerland, Mrs. Clarence L.....514 Iowa, Alma
Linn, Mrs. Michael R.....215 W. Saginaw, St. Louis
Meyer, Mrs. Edwin G.....780 Argyle, Alma
Oldham, Mrs. Earle S.....Breckenridge
Ringer, Mrs. Paul H.....1007 Watson, Mt. Pleasant
Veldhuis, Mrs. Andrew.....417 College, Mt. Pleasant
Wickert, Mrs. Leo R.....203 N. Fancher, Mt. Pleasant
Wood, Mrs. John.....815 Maple, Mt. Pleasant

HOUGHTON COUNTY

Aldrich, Mrs. A. B.....325 Harris Ave., Hancock
Aldrich, Mrs. A. D.....U. S. 41, Chassell
Aldrich, Mrs. Leonard C.....1609 E. Houghton, Houghton
Bourland, Mrs. Phillip D.....134 Calumet Ave., Calumet
Burke, Mrs. John J.....102 Duncan Ave., Hubbell
Hillmer, Mrs. Raymond.....1 Algoma, Painesdale
Hosking, Mrs. Frederick.....328 Florida, Laurium
Janis, Mrs. Anton.....200 East, Hancock
Kolb, Mrs. Frederick E.....128 Calumet Ave., Calumet
LaBine, Mrs. Alfred.....1019 College Ave., Houghton
Larson, Mrs. Forrest W.....1400 E. Houghton, Houghton
Lepisto, Mrs. Victor.....515 Lake Linden Ave., Laurium
Levin, Mrs. Simon.....1209 College Ave., Houghton
Manthei, Mrs. Willard....5426 Calumet St., Lake Linden
Meier, Mrs. Maurice D.....1033 Mine, Calumet
Nolan, Mrs. Lewis E.....108 Center, Hancock
Roche, Mrs. Andrew.....204 Pewabic St., Laurium
Rupprecht, Mrs. C. H.....117 Fifth, Calumet
Sanduel, Mrs. Samuel T.....400 Cooper, Calumet
Sloan, Mrs. Paul.....214 Clark, Houghton
Smith, Mrs. Charles E.....White St., Hancock
Wickliffe, Mrs. T. P.....1167 Calumet Ave., Calumet
Williams, Mrs. Marshall S...1412 E. Houghton, Houghton
Winkler, Mrs. Henry J.....Baraga County Hosp., L'Anse

HURON COUNTY

Bash, Mrs. Theodore.....Kinde
Dixon, Mrs. Ralph C.....Pigeon
Elliott, Mrs. C. S.....Pigeon
Gettel, Mrs. Roy R.....Bad Axe
Herrington, Mrs. Willet.....Bad Axe
Oakes, Mrs. C. W.....Harbor Beach
Ritsema, Mrs. John.....Sebewaing
Schuerer, Mrs. Clare A.....Pigeon
Sorensen, Mrs. Maurice.....Elkton
Steinhardt, Mrs. E. E.....Bad Axe
Thompson, Mrs. J. E.....Caseville
Turner, Mrs. P. R.....Harbor Beach
Wible, Mrs. C. F.....Sebewaing
Willits, Mrs. Robert A.....Elkton

INGHAM COUNTY

Agate, Mrs. G. H.....1109 Southlawn, East Lansing
Altland, Mrs. J. K.....Mt. Hope Rd., Rt. 3, Box 178, Lansing
Aiken, Mrs. Donald J.....5001 Mokawk, Okemos
Asselin, Mrs. D. C.....1001 Glenhaven, East Lansing
Badgley, Mrs. W. O.....3429 Waverly Hills Rd., Lansing
Baker, Mrs. Thomas.....1720 Windsor Pl., Lansing
Bates, Mrs. Richard.....326 Northlawn, East Lansing
Bauer, Mrs. Theo. I.....839 Wildwood Dr., East Lansing
Berens, Mrs. Burdette.....1434 Bassett, Lansing
Bergeon, Mrs. Milton.....302 S. Steele, Mason
Bevez, Mrs. Frank L.....3209 Cambridge Rd., Lansing
Bingham, Mrs. B. Wayne.....1123 N. Hayford, Lansing
Bradford, Mrs. C. W.....832 Westlawn, East Lansing
Breakey, Mrs. Robert.....520 Westmoreland, Lansing
Briggs, Mrs. James A.....1817 Maple, Holt
Brown, Mrs. Fred W.....706 Britten, Lansing
Brubaker, Mrs. Earl W.....444 S. Verlinden, Lansing
Brucker, Mrs. K. B.....610 S. Walnut, Lansing
Burhans, Mrs. R. A.....973 Rosewood, East Lansing
Cairns, Mrs. D. A.....300 S. Washington, Mason
Cameron, Mrs. W. J.....920 N. Capitol, Lansing
Carlson, Mrs. Ralph.....2710 Northwest, Lansing
Carr, Mrs. E. I.....1915 Moores River Dr., Lansing
Casey, Mrs. Byron L...337 Chesterfield Pky., East Lansing
Cheney, Mrs. Wm. D.....4530 Ethel St., Okemos
Christian, Mrs. L. G.....400 Everett, Lansing
Clark, Mrs. Wm. E.....809 E. Ash St., Mason
Combs, Mrs. Robert.....403 Butterfield, East Lansing
Comstock, Mrs. H.....724 Walbridge Dr., East Lansing
Cook, Mrs. R. J.....105 S. Jenison, Lansing
Cope, Mrs. H. E.....605 Westmoreland, Lansing
Cordes, Mrs. Jerome.....2209 Shawnee Trail, Okemos
Cowan, Mrs. John.....825 Touraine, East Lansing
Cross, Mrs. F. S.....432 Highland, East Lansing
Cushman, Mrs. F.....408 N. Sycamore, Lansing
Darling, Mrs. L. H.....431 S. Verlinden, Lansing
Davenport, Mrs. C. S.....219 N. Logan, Lansing
Dawe, Mrs. Douglas.....935 Rosewood, East Lansing
Dean, Mrs. Carlton....152 Maplewood Dr., East Lansing
DeVries, Mrs. C. F.....Delta River Dr., Rt. No. 1, Lansing
Drolett, Mrs. Donald.....2408 Arlington Rd., Lansing
Drolett, Mrs. Fred.....1623 Inverness, Lansing
Drolett, Mrs. L. A.....228 S. Jenison, Lansing
Dunkel, Mrs. Donald.....4294 Oakwood Dr., Okemos
Dunn, Mrs. F. M.....507 Woodland Pass, East Lansing
Feurig, Mrs. James S...321 Kensington Rd., East Lansing
Finch, Mrs. Russell L.....420 S. Walnut, Lansing
Folkers, Mrs. L.....666 Butterfield Dr., East Lansing
Fortino, Mrs. S. P.....1000 Coolidge Rd., East Lansing
Fosget, Mrs. Wilbur.....210 E. Hillsdale, Lansing
French, Mrs. H. L.....Delta River Dr., Lansing
Gardner, Mrs. C. B.....1815 Moores River Dr., Lansing
George, Mrs. Harry.....444 Spartan Ave., East Lansing
Goldner, Mrs. Roy E.....744 N. Verlinden, Lansing
Govons, Mrs. Sidney.....1729 Cadillac, Lansing
Hames, Mrs. R. E.....412 N. Clemens, Lansing
Hanna, Mrs. Rodger.....321 Bailey, East Lansing
Harris, Mrs. H. W.....1400 Wellington, Lansing
Harrison, Mrs. Wm. H.....1306 Hyland, Lansing
Harrold, Mrs. Jesse F.....2812 S. Waverly, Lansing
Hatton, Mrs. Richard.....1218 Theodore, Lansing
Hayes, Mrs. Robert E.....1622 Sunnyside, Lansing
Hayford, Mrs. W. D.....1006 Wildwood, East Lansing
Haze, Mrs. H. A.....Hotel Olds, Lansing
Heald, Mrs. Gordon.....538 Walbridge, East Lansing
Heckert, Mrs. F. B...Delta River Dr., Box 199, Rt. No. 1, Lansing
Heckert, Mrs. J. K.....1418 E. Grand River, East Lansing
Heerdt, Mrs. Mark.....4550 Ottawa Dr., Okemos
Henderson, Mrs. Norman..826 Sunset Lane, East Lansing
Hermes, Mrs. E. J.....604 W. Willow, Lansing
Heustis, Mrs. A. E.....410 Cowley, East Lansing
Himmelberger, Mrs. R. J.....227 West St., Lansing
Hisco, Mrs. D. Bonta....152 Maplewood Dr., East Lansing
Hodges, Mrs. K.....421 West St., Lansing
Hoffer, Mrs. Wm. E.....327 Shepard, Lansing
Holm, Mrs. M. L.....913 W. Allegan, Lansing
Holland, Mrs. Charles F.....166 Orchard, East Lansing
Huggett, Mrs. C. C.....1531 Osborne, Lansing
Isbister, Mrs. John.....104 S. Jenison, Lansing
Jacob, Mrs. S. Sprigg.....320 Curtis Rd., East Lansing
Johnson, Mrs. David B.....2015 Pawnee Trail, Okemos
Johnson, Mrs. Richard..623 Walbridge Rd., East Lansing
Jones, Mrs. F. A., Sr.....1025 Roxburgh, East Lansing
Jones, Mrs. F. A., Jr.....1025 Roxburgh, East Lansing
June, Mrs. R. C.....426 S. Walnut, Lansing
Kahn, Mrs. David.....1519 Pershing Dr., Lansing
Kalmbach, Mrs. R. E.....1600 Wellington Rd., Lansing
Keim, Mrs. C. D.....1415 W. Kalamazoo, Lansing
Kelly, Mrs. Wm. H.....1615 W. Ottawa, Lansing
Klunzinger, Mrs. Willard R.....810 Roxburgh Rd., East Lansing

Kozak, Mrs. Jerome.....430 N. Howard, Lansing
Kraft, Mrs. L. C.....209 S. Main St., Leslie
Landy, Mrs. G. R.....1023 N. Jenison, Lansing
Lange, Mrs. P. F.....1652 Sunnyside, Lansing
Leeder, Mrs. Fred.....707 W. Jolly Rd., Lansing
LeDuc, Mrs. D.....405 University Dr., East Lansing
LeVett, Mrs. H. L.....1108 Southlawn, East Lansing
Leshock, Mrs. J. C.....419 Clarendon, East Lansing
Lewis, Mrs. Clayton.....727 Audubon, East Lansing
Linnell, Mrs. Paul C.....4180 Dallas, Holt
Loughrin, Mrs. Ted.....1224 N. Hayford, Lansing
Long, Mrs. Charles.....1831 Roseland, East Lansing
Loree, Mrs. M. C.....1615 Abbott Rd., East Lansing
Lucas, Mrs. T. A.....2826 Cambridge Rd., East Lansing
Ludlum, Mrs. L. C.....1126 W. Saginaw, Lansing
Mahue, Mrs. Louis D.....2935 Grandell, Lansing
Malcolm, Mrs. H. E.....407 Clarendon Rd., East Lansing
Martin, Mrs. Wayne.....4765 Nakoma Dr., Okemos
McCorvie, Mrs. D. R.....323 S. Circle Dr., Williamston
McCorvie, Mrs. C. Ray.....903 E. Grand River, East Lansing
McCrumb, Mrs. Ray R.....1216 Parkdale, Lansing
McElmurry, Mrs. Leland.....W. St. Joseph, Lansing
McGillicuddy, Mrs. R.....528 E. Oakwood, East Lansing
McIntyre, Mrs. J. E.....600 S. Grand, Lansing
McNamara, Mrs. B. Edward.....804 W. Ottawa, Lansing
Meade, Mrs. Wm.....535 Ardson, East Lansing
Melick, Mrs. Richard C.....4334 Mar Moore Dr., Lansing
Menzies, Mrs. C. G.....734 Linden, East Lansing
Miller, Mrs. Willard.....611 S. Walnut, Lansing
Morrow, Mrs. R. J.....412 N. Capitol, Lansing
Neering, Mrs. J. C.....1316 N. Genesee Dr., Lansing
Neuman, Mrs. John.....235 Leland Pl., Lansing
Niland, Mrs. Paul.....1222 Blake, Lansing
Nobel, Mrs. Rudolph.....2711 E. Grand River, Lansing
Osborn, Mrs. Sam.....528 W. Ottawa, Lansing
Packer, Mrs. John H.....612 Everett Dr., Lansing
Paine, Mrs. Wm.....724 Rosewood, East Lansing
Palmer, Mrs. R. C.....535½ S. Capitol, Lansing
Parker, Mrs. Earl E.....207 E. Bellevue, Leslie
Peets, Mrs. Ronald C.....2266 Shawnee Trail, Okemos
Phillips, Mrs. David.....333 N. Chestnut, Lansing
Phillips, Mrs. R. W.....1259 W. Grand River 42C, East Lansing
Pinkham, Mrs. R. A.....535 N. Capitol, Lansing
Prall, Mrs. H. J.....214 W. Main, Lansing
Randall, Mrs. O. M.....7557 W. Saginaw, Rt. #1, Lansing
Richards, Mrs. Frank..311 Kensington Rd., East Lansing
Rollstin, Mrs. Robert A.....4976 Ardmore Rd., Okemos
Rozan, Mrs. Jos.....1142 Blake Ave., Lansing
Ruhmkorff, Mrs. R. F.....1060 Glenhaven, East Lansing
Rulison, Mrs. J. G.....2100 Colonial Plaza, Lansing
Rutledge, Mrs. S. H.....1035 Northlawn, East Lansing
Scallin, Mrs. J. F.....221 Kensington Rd., East Lansing
Schmidt, Mrs. Harry J.....1416 N. Hayford, Lansing
Schultz, Mrs. Arthur.....4646 Ottawa Dr., Okemos
Sharp, Mrs. M. S.....950 Audubon, East Lansing
Shaw, Mrs. Milton.....415 West St., Lansing
Sherman, Mrs. George.....504 Cowley, East Lansing
Sichler, Mrs. H. G.....443 Clifton Blvd., East Lansing
Siegel, Mrs. David.....1209 Parkdale, Lansing
Sleight, Mrs. J. L.....3001 Westchester Rd., Lansing
Smith, Mrs. A. V.....S. Jackson Rd., Mason
Smookler, Mrs. Bernard.....1139 Gould Rd., Lansing
Snell, Mrs. D. M.....North Campbell Dorm, East Lansing
Spagnuola, Mrs. A. J.....2304 Marion, Lansing
Spencer, Mrs. C. J.....1134 Southlawn, East Lansing
Spencer, Mrs. P. C.....602 Northlawn, East Lansing
Stanley, Mrs. A. L.....408 Whitehills Dr., East Lansing
Stehman, Mrs. V. A.....2062 Tomahawk Circle, Okemos
Steiner, Mrs. S. D.....413 Clarendon, East Lansing
Stiles, Mrs. Frank.....615 Northlawn, East Lansing
Stimson, Mrs. Paul R.....Rt. 4, Box 412, Lansing
Stone, Mrs. Ben.....736 Rosewood, East Lansing
Stow, Mrs. Robert.....1036 Rosewood, East Lansing
Strauss, Mrs. P. C.....3813 W. Willow, Lansing
Stringer, Mrs. C. J.....1701 W. Kalamazoo, Lansing
Stucky, Mrs. G. C.....624 W. Ottawa, Lansing
Sundell, Mrs. E. C.....2030 Pawnee Trail, Okemos
Swartz, Mrs. Frederick C.....500 Kedzie Dr., East Lansing
Tamblyn, Mrs. F. W.....Waverly Rd., Rt. #3, Lansing
Thaden, Donald W.....954 Delridge Rd., East Lansing
Thimmig, Mrs. Robert F.....4598 Arrowhead, Okemos
Toothaker, Mrs. K. W.....1609 W. Michigan, Lansing
Towne, Mrs. L. C.....701 Britten, Lansing
Trimby, Mrs. Robert....611 Whitehills Dr., East Lansing
Troost, Mrs. F. L.....4395 Delhi, Holt
VanderZalm, Mrs. T. P.....1452 Cambridge Rd., Lansing
Venier, Mrs. J. H.....544 Division, East Lansing
Wadley, Mrs. Ralph.....930 Roxburgh, East Lansing
Wainright, Mrs. J. W.....433 Haslett Rd., East Lansing
Walker, Mrs. Leo.....1302 Pershing Dr., Lansing
Wellman, Mrs. J. M.....1809 W. Hillsdale, Lansing
Wilensky, Mrs. Thomas....527 W. Oakwood, East Lansing
Wiley, Mrs. H. M.....402 N. Jenison, Lansing
Willson, Mrs. H. S.....435 McPherson, Lansing
Wolcott, Mrs. Lester E.....3555 W. Arbutus Dr., Okemos
Worthington, Mrs. Ralph.....717 Britten, Lansing
Zick, Mrs. Gerold A.....1255 W. Grand River, Apt. 31A, Lansing

IONIA COUNTY

Buck, Mrs. Jack H.....118 N. Jefferson St., Ionia
Campbell, Mrs. Richard E.....340 E. Main St., Ionia
Foust, Mrs. Joseph C.....320 Union St., Ionia
Hoffs, Mrs. Marinos A.....Lake Odessa
Kopchick, Mrs. Joseph.....Muir
Leider, Mrs. Thomas.....722 W. Main St., Ionia
Robertson, Mrs. Perry C.....327 Center St., Ionia
Slagh, Mrs. Milton E.....Saranac
Smith, Mrs. Robert O.....505 W. Fargo St., Ionia
Socha, Mrs. Edmund S.....North State Rd., Ionia
Tannheiner, Mrs. John F.....138 E. Washington St., Ionia

JACKSON COUNTY

Adams, Mrs. Ellis W.....759 Oakridge, Jackson
Ahronheim, Mrs. J. Heinz.....1410 Greenwood, Jackson
Anderson, Mrs. W. B.....815 Briarcliff, Jackson
Appel, Mrs. Saul.....1111 W. Morrell, Jackson
Baker, Mrs. George.....Parma
Beckwith, Mrs. Sidney A.....Stockbridge
Brashares, Mrs. Zane.....Brooklyn
Bullen, Mrs. G. Rexford.....418 Third, Jackson
Cooley, Mrs. C. Warren.....315 S. Wisner, Jackson
Cooley, Mrs. Randall M.....141 E. Robinson, Jackson
Corley, Mrs. Cecil.....800 Crescent, Jackson
Corley, Mrs. Ennis.....3923 Kathmar, Jackson
Corley, Mrs. Robert.....1104 W. Michigan, Jackson
Cox, Mrs. Ferdinand.....1601 Fourth St., Jackson
Daly, Mrs. Byrne.....709 Oakridge, Jackson
DeMay, Mrs. C. E.....901 Albright, Jackson
DeMay, Mrs. John D.....1820 Herkimer, Jackson
Deming, Mrs. Richard.....1406 W. Washington, Jackson
Dickman, Mrs. Harry.....Hudson
Faust, Mrs. W. L.....Grass Lake
Filip, Mrs. H. K.....755 W. Michigan, Jackson
Finton, Mrs. Robert E.....1812 Grovedale, Jackson
Finton, Mrs. Walter L.....1502 Carleton Blvd., Jackson
Growt, Mrs. B. W.....Addison

Hackett, Mrs. Thomas L.....3160 Reynolds Rd., Jackson
Hackett, Mrs. Thomas E.....1124 Burr St., Jackson
Hanft, Mrs. Cyril.....Springport
Hardie, Mrs. George.....218 Fourth St., Jackson
Harris, Mrs. Lester J.....607 W. Washington, Jackson
Hart, Mrs. Vernon.....518 S. Brown St., Jackson
Hicks, Mrs. Glen.....1009 Wildwood, Jackson
Holst, Mrs. John.....1437 Wickwire, Jackson
Hunt, Mrs. Maurice.....2534 Francis, Jackson
Hurley, Mrs. Harold L.....734 Bloomfield Blvd., Jackson
Joerin, Mrs. Wm.....734 W. Franklin, Jackson
Karr, Mrs. Jean P.....844 Woodbine, Jackson
Keefer, Albert H.....Concord
Kempton, Mrs. George B.....748 Crescent, Jackson
Kiessling, Mrs. Arnold J.....1850 Schaffer Rd., Jackson
Kline, Mrs. Starr L.....3525 Jefferson Rd., Clark Lake
Kobs, Mrs. Robert J.....513 Seventeenth St., Jackson
Kraft, Mrs. Lester C.....Leslie
Kudner, Mrs. Don F.....1300 W. Franklin, Jackson
Lake, Mrs. Edward C.....786 Bloomfield Blvd., Jackson
Lake, Mrs. W. H.....1917 Parkwood Way, Jackson
Landron, Mrs. Daniel L.....4633 Page Ave., Jackson
Leahy, Mrs. Edward O.....1826 Grovedale, Jackson
Lenz, Mrs. Charles R.....1833 Shoemaker Dr., Jackson
Lewia, Mrs. Elmore F.....609 S. Wisner, Jackson
Linden, Mrs. Victor E...5712 Brown's Lake Rd., Jackson
Ludwick, Mrs. John E.....6220 Brooklyn Rd., Jackson
Ludwick, Mrs. John P.....405 S. Durand, Jackson
McGarvey, Mrs. Edward W.....319 S. Higby, Jackson
McLaughlin, Mrs. Herbert B.....200 S. Higby, Jackson
McLaughlin, Mrs. John M.....1609 W. Franklin, Jackson
McLaughlin, Mrs. M. J.....6300 Brown's Lake Rd., Jackson
Meads, Mrs. Jason.....1714 Fourth, Jackson
Medlar, Mrs. Robert.....1202 W. Franklin, Jackson
Morelli, Mrs. Lorenzo.....507 Seventeenth St., Jackson
Muhlich, Mrs. Ralph.....2466 Emmons Rd., Jackson
Munro, Mrs. Nathan D.....407 Edwards, Jackson
Murphy, Mrs. Bernard.....710 Bloomfield Blvd., Jackson
Newton, Mrs. R. E.....3124 Horton Rd., Jackson
Olsen, Mrs. Lloyd L.....1410 W. Washington, Jackson
Olesky, Mrs. Stanley P.....1415 Washington W., Jackson
Oster, Mrs. Harold L.....1218 Greenwood, Jackson
Otis, Mrs. Grant L.....922 Oak Grove, Jackson
Parker, Mrs. Earl E.....Leslie
Payne, Mrs. Andrew K.....914 S. Brown, Jackson
Phillips, Mrs. George.....326 W. Cortland, Jackson
Porter, Mrs. Horace W.....1008 Carlton Blvd., Jackson
Pray, Mrs. Frank F.....310 Steward Ave., Jackson
Preston, Mrs. Joseph A.....647 Commonwealth, Jackson
Rice, Mrs. John W.....705 Bloomfield Blvd., Jackson
Ries, Mrs. Richard G.....824 Brown's Lake Rd., Jackson
Riley, Mrs. Phillip A.....205 W. Franklin, Jackson
Riley, Mrs. Phillip, Jr.....1409 W. Franklin, Jackson
Sargent, Mrs. Leland E.....114 N. Thompson, Jackson
Sautter, Mrs. Wm. A.....Horton
Schepeler, Mrs. Courtland W.....Brooklyn
Scheurer, Mrs. P. A.....Manchester
Schmidt, Mrs. Theopile E.....1414 W. Washington, Jackson
Scott, Mrs. John A.....119 S. Bowen, Jackson
Shaeffer, Mrs. Arthur M.....120 S. Durand, Jackson
Shaeffer, Mrs. Dale.....206 S. Wisner, Jackson
Sher, Mrs. David B.....956 Cooper, Jackson
Sill, Mrs. Henry W.....214 S. Durand, Jackson
Sirhal, Mrs. Alfred M.....5160 N. Shore Dr., Clark Lake
Smith, Mrs. Dean A.....1205 W. Washington, Jackson
Smith, Mrs. John C.....204 Steward Ave., Jackson
Staclable, Mrs. Wm. R.....727 Christy, Jackson
Stewart, Mrs. Lewis L.....220 Summit, Jackson
Stewart, Mrs. M. N.....216 Steward Ave., Jackson
Stolberg, Mrs. Carl A.....828 Oakridge Dr., Jackson
Stone, Mrs. Ethon L.....1011 S. Brown, Jackson
Susskind, Mrs. Myron V.....1018 S. Brown, Jackson
Tate, Mrs. Cyril E.....1315 Francis, Jackson
Taylor, Ross V.....800 S. Grinnell, Jackson
Thalner, Mrs. Leonard F.....609 W. Michigan, Jackson
Thayer, Mrs. Earl A.....2018 Spring Arbor Rd., Jackson
Thompson, Mrs. Thomas B.....200 Fourth St., Jackson
Torwick, Mrs. Edward T.....1107 Union St., Jackson
Towsend, Mrs. James W.....108 Hague Ave., Vandercook Lake
Van Schoick, Mrs. Frank..1301 Greenwood Ave., Jackson
Van Schoick, Mrs. John.....Hanover
Van Wagnen, Mrs. Fritz I.....1232 First St., Jackson
Vivirski, Mrs. Edward E.....603 S. Elm St., Jackson
Weddon, Mrs. Edward R.....Stockbridge
Wickham, Mrs. Woodward, A.....1710 Herkiner Dr., Jackson
Willie, Mrs. Warren S.....1346 Kathmir Dr., Jackson
Wholihan, Mrs. John W.....602 W. Michigan Ave., Jackson
Young, Mrs. Allan.....118 Moore St., Jackson

KALAMAZOO COUNTY

Alexander, Mrs. C. A.....118 W. North, Kalamazoo
Andrews, Mrs. Sherman E.....2326 Springhill Dr., Kalamazoo
Appel, Mrs. Ben.....516 Montrose Ave., Kalamazoo
Appel, Mrs. Wm.....1906 Dorchester, Kalamazoo
Appell, Mrs. L. E.....108 Mill St., Vicksburg
Banner, Mrs. Lawrence R.....1405 Long Rd., Kalamazoo
Barak, Mrs. Herbert C.....2122 Chevy Chase, Kalamazoo
Barry, Mrs. Manley L.....252 E. Lovell, Kalamazoo
Bennett, Mrs. Keith F.....2760 Bronson Blvd., Kalamazoo
Berglund, Mrs. V.....4154 Rivington, Kalamazoo
Betz, Mrs. Eldean G.....1521 Timberlane Dr., Kalamazoo
Birch, Mrs. Wm. G.....1539 Grand Ave., Kalamazoo
Borgman, Mrs. Wallace.....2252 Chevy Chase Blvd., Kalamazoo
Boyd, Mrs. Robert E.....1311 Manor St., Kalamazoo
Breneman, Mrs. James C.....25 Pearl St., Galesburg
Brue, Mrs. Peter Paul....1009 Cambridge Dr., Kalamazoo
Burbidge, Mrs. Earl L.....359 Park Ave., Kalamazoo
Burrell, Mrs. Robert B.....2017 Hillsdale Ave., Kalamazoo
Callander, Mrs. C. Glen.....4418 Lake Forest Dr., Kalamazoo
Cashen, Mrs. Russell.....1716 Royce Ave., Kalamazoo
Chrest, Mrs. C. P.....2740 Bronson Blvd., Kalamazoo
Clement, Mrs. F. L.....2227 S. Rose St., Kalamazoo
Cobb, Mrs. H. R.....3403 Knox, Kalamazoo
Conrad, Mrs. Maynard M.....1509 Timberlane Dr., Kalamazoo
Cook, Mrs. Ralph G.....615 Clinton Ave., Kalamazoo
Cooper, Mrs. Paul F.....4326 Oakland Dr., Kalamazoo
Crane, Mrs. W. B.....Route #1, Richland
Crawford, Mrs. Kenneth L.....1532 Grand Ave., Kalamazoo
Creager, Mrs. Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Mrs. Francis C.....2012 Chevy Chase Blvd., Kalamazoo
Currier, Mrs. R. Keith.....1223 Kilgore Rd., Kalamazoo
Dana, Mrs. Robert L.....2240 Sheffield Dr., Kalamazoo
Decker, Mrs. Wm. A.....1145 Oakland Dr., Kalamazoo
Delbert, Mrs. Stewart G.....410 Edgemoor, Kalamazoo
DeLong, Mrs. Robert E.....2215 Crane Ave., Kalamazoo
Depree, Mrs. Harold E.....2423 Russet Dr., Kalamazoo
Dew, Mrs. Robert R.....2253 Sheffield Dr., Kalamazoo
Dick, Mrs. Leo.....428 Stuart, Kalamazoo
Doezema, Mrs. Edward R.....802 Grand Pre, Kalamazoo
Dowd, Mrs. Bennard J...1415 Henderson Dr., Kalamazoo
Doyle, Mrs. Fred M.....3240 Bronson Blvd., Kalamazoo
Dugger, Mrs. James A.....1110 Southern Ave., Kalamazoo
Endrei, Mrs. Arisztid....Box A, State Hospital, Kalamazoo
Estill, Mrs. Donald V.....1605 N. Church, Kalamazoo
Fast, Mrs. Ralph B.....1425 Low Rd., Kalamazoo
Fath, Mrs. August F.....5029 Angling Rd., Kalamazoo

Ferguson, Mrs. Robert K.....2321 Tipperary, Kalamazoo
Finton, Mrs. M. A.....1418 W. Kilgore Rd., Kalamazoo
Flunt, Mrs. Roman.....State Hospital, Kalamazoo
Fopeano, Mrs. John V.....2121 Sheffield Dr., Kalamazoo
French, Merle R.....1128 Miles Ave., Kalamazoo
Fulkerson, Mrs. Clarke B.....425 S. Westnedge Ave., Kalamazoo
Gardner, Mrs. Carl A.....404 Parkwood, Kalamazoo
Gerstner, Mrs. Louis P.....2425 Low Rd., Kalamazoo
Gladstone, Mrs. Wm. S.....4322 Sunnybrook Dr., Kalamazoo
Glaser, Mrs. Daniel F.....3322 Lakehill Dr., Kalamazoo
Green, Mrs. Wm. L.....2622 Alta Vista, Kalamazoo
Grekin, Mrs. Robert H.....3224 Lakehill Dr., Kalamazoo
Fuller, Mrs. Paul M.....4192 Saratoga, Kalamazoo
Haddock, Mrs. D. A.....4426 Lake Forest Dr., Kalamazoo
Hammer, Mrs. John M.....121 Monroe St., Kalamazoo
Hanson, Mrs. Curtis M.....1207 Maple Ave., Kalamazoo
Harrell, Mrs. Frank C.....120 N. Arlington, Kalamazoo
Harrelson, Mrs. Wm. D.....3625 Old Colony Rd., Kalamazoo
Harvey, Mrs. Donald A.....2308 Crane Ave., Kalamazoo
Hayner, Mrs. Russell A.....718 Royce Ave., Kalamazoo
Heersma, Mrs. H. Sidney.....1923 Winchell Ave., Kalamazoo
Herbert, Mrs. Walter N.....2777 Highland Park, Kalamazoo
Hersey, Mrs. E. Freeman.....4407 Bronson Blvd., Kalamazoo
Hildreth, Mrs. Roscoe C.....226 Grandview Ave., Kalamazoo
Hoebeke, Mrs. Wm. G.....1408 Long Rd., Kalamazoo
Holder, Mrs. C. O.....1207 Oakland Dr., Kalamazoo
Howard, Mrs. Grant R.....2025 Chevy Chase Blvd., Kalamazoo
Howard, Mrs. Willard H.....1602 Gull Rd., Kalamazoo
Hubbard, Mrs. Edwin M.....1327 Cherokee, Kalamazoo
Hume, Mrs. Robert H.....1115 Crown Ave., Kalamazoo
Irwin, Mrs. Wm. D.....2333 Sheffield Dr., Kalamazoo
Jennings, Mrs. Robert M.....814 Oakland Dr., Kalamazoo
Jennings, Mrs. W. O.....1136 Long Rd., Kalamazoo
Kavanaugh, Mrs. John W...826 Dwillard Rd., Kalamazoo
Kercher, Mrs. Erwin.....1211 Cherry St., Kalamazoo
Kilgore, Mrs. Robert N.....5140 Morningside Dr., Kalamazoo
Klerk, Mrs. Wm. J.....2421 Waite Ave., Kalamazoo
Koestner, Mrs. Paul A.....742 Norton Rd., Kalamazoo
Lawrence, Mrs. James O.....1409 Henderson, Kalamazoo
Lemmer, Mrs. Richard A.....2933 Bronson Blvd., Kalamazoo
Littig, Mrs. John.....1708 Embury Rd., Kalamazoo
Locklin, Mrs. Walter K.....4444 Lake Forest Dr., Kalamazoo
Loynd, Mrs. James W.....4041 Hillandale, Kalamazoo
McManus, Mrs. James W.....1416 Academy, Kalamazoo
McMillen, Mrs. Donald W...5021 Old Colony, Kalamazoo
MacGregor, Mrs. John R.....226 Church St., Parchment
Machin, Mrs. Harold A...2348 Tipperary Rd., Kalamazoo
Malone, Mrs. James G.....3731 Bronson Blvd., Kalamazoo
Margolis, Mrs. Fredrick J.....2134 Waite Ave., Kalamazoo
Marshall, Mrs. Don.....2344 Sheffield Dr., Kalamazoo
Marshall, Mrs. Wm. P.....160 Edgemoor, Kalamazoo
Martens, Mrs. Irvin J.....517 Sturgis Rd., Parchment
May, Mrs. Donald G.....1327 Maple, Kalamazoo
McCarthy, Mrs. Joseph S.....1005 Oakland Dr., Kalamazoo
Mellis, Mrs. Richard T.....2833 Grace Rd., Kalamazoo
Moe, Mrs. Rex.....4011 Hillandale Dr., Kalamazoo
Morter, Mrs. Roy A.....2421 Sheffield, Kalamazoo
Neerkin, Mrs. A. John.....2315 Lorraine, Kalamazoo
Nibbelink, Mrs. Benjamin.....2149 Treehaven Dr., Kalamazoo
Nicholson, Mrs. Robert M.....2229 Treehaven Dr., Kalamazoo
O'Donovan, Mrs. Cornelius J.....2659 Sunnybrook, Kalamazoo
Overby, Mrs. Charles.....State Hospital, Kalamazoo
Patmos, Mrs. Martin.....1207 Cherry St., Kalamazoo
Peake, Mrs. Charles O...1541 W. Kilgore Rd., Kalamazoo
Pearson, Mrs. Edwin O.....933 W. Inkster, Kalamazoo
Peelen, Mrs. J. Wm.....943 W. Inkster, Kalamazoo
Peelen, Mrs. Matthew.....310 Grandview, Kalamazoo
Perry, Mrs. C. W.....2030 Waite Ave., Kalamazoo
Pinkham, Mrs. Raymond A.....1203 Miles, Kalamazoo
Pool, Mrs. John D.....1215 Lakeway, Kalamazoo
Rassmussen, Mrs. Leo B.....205 N. Michigan, Vicksburg
Rigterink, Mrs. Gerald.....2424 S. Park, Kalamazoo
Roberts, Mrs. M. S.....118 Bulkley Rd., Kalamazoo
Rockwell, Mrs. Donald C...1227 Jefferson St., Kalamazoo
Rogers, Mrs. R. J.....108 Mill Rd., Vicksburg
Rutherford, Mrs. Paul S.....106 Thompson St., Kalamazoo
Ryan, Mrs. Frederick C...2511 Glenwood Dr., Kalamazoo
Scholten, Mrs. Roger A.....930 W. Inkster, Kalamazoo
Schrier, Mrs. Clarence M...1223 Oakland Dr., Kalamazoo
Scott, Mrs. Wm. A.....2315 Angling Rd., Kalamazoo
Shook, Mrs. Ralph W.....2211 Benjamin, Kalamazoo
Siemsen, Mrs. Walter J.....3424 Old Colony Rd., Kalamazoo
Sisk, Mrs. Wilfred.....2411 Outlook, Kalamazoo
Slatmyer, Mrs. Karel.....118 S. Prairie, Kalamazoo
Smith, Mrs. Thomas C.....1215 Oakland Dr., Kalamazoo
Sofen, Mrs. M. B.....901 Edgemoor, Kalamazoo
Southworth, Mrs. Maynard.....Schoolcraft
Stewart, Mrs. Robert B.....2407 Fairfield, Kalamazoo
Stewart, Mrs. Wm. C...4419 Lake Forest Dr., Kalamazoo
Stiller, Mrs. Anthony.....1235 N. Hillandale Dr. Kalamazoo
Stryker, Mrs. Homer H.....903 Edgemoor, Kalamazoo
Talley, Mrs. Robert W.....8643 S. Westnedge Ave., Kalamazoo
Upjohn, Mrs. E. Gifford..2230 Glenwood Dr., Kalamazoo
VanderVelde, Mrs. Kenneth M.....2203 Sheffield, Kalamazoo
Volderauer, Mrs. John C.....905 Edgemoor, Kalamazoo
Verhage, Mrs. Martin D.....1748 Greenlawn Ave., Kalamazoo
Weadon, Mrs. Preston S.....2255 Tipperary Rd., Kalamazoo
Williamson, Mrs. Edwin M.....6343 Douglas Ave., Kalamazoo
Wilson, Mrs. Doyle A.....1116 Homecrest, Kalamazoo
Wu, Mrs. Jack Foy.....3919 Duke St., Kalamazoo
Youngs, Mrs. C. A.....416 S. Burdick St., Kalamazoo
Zwergel, Mrs. Edward E.....5207 Morningside Dr., Kalamazoo

KENT COUNTY

Aitken, Mrs. George T.....936 San Lucia Dr. S.E., Grand Rapids
Albers, Mrs. G. Donald.....1838 Argentina Dr. S.E., Grand Rapids
Aldridge, Mrs. Charles W.....1574 Mackinaw Rd. S.E., Grand Rapids
Allen, Mrs. L. Willis.....3085 Baker Park Dr. S.E., Grand Rapids
Andre, Mrs. Harvey M.....950 Cambridge Dr. S.E., Grand Rapids
Ballard, Mrs. Milner S.....9 College N.E., Grand Rapids
Balyeat, Mrs. Gordon W.....150 Morningside S.E., Grand Rapids
Barofsky, Mrs. Gerald F.....2944 Hall St. S.E., Grand Rapids
Bartek, Mrs. Gorden L.....144 Forest Hills S.E., Grand Rapids
Basinger, Mrs. Clair.....420 Rosewood Ave. S.E., Grand Rapids
Batts, Mrs. Martin.....246 Aurora S.E., Grand Rapids

Baum, Mrs. Wm...2739 Oakwood Dr. S.E., Grand Rapids
Beaton, Mrs. James H.....1556 Pontiac Rd. S.E., Grand Rapids
Beets, Mrs. W. Clarence.....2221 Jefferson Dr. S.E., Grand Rapids
Benjamin, Mrs. Howard G.....500 Cambridge S.E., Grand Rapids
Bennett, Mrs. W. Bruce.....1015 Rosalie N.W., Grand Rapids
Benson, Mrs. Roland R.....1578 Pontiac S.E., Grand Rapids
Bergama, Mrs. Stuart..1942 Sherman S.E., Grand Rapids
Bignall, Mrs. C. Rexford.....1134 Conlon S.E., Grand Rapids
Blackburn, Mrs. Henry M.....2410 Breton Rd. S.E., Grand Rapids
Blocksma, Mrs. Ralph.....1529 Blythecourt, S.E., Grand Rapids
Boelkins, Mrs. Richard C.....834 Giddings Ave., S.E., Grand Rapids
Boersma, Mrs. Donald.....920 Chippewa, S.E., Grand Rapids
Boet, Mrs. John T.....2739 Maplewood, S.E., Grand Rapids
Boerman, Mrs. Walter.....1116 Kelsey, N.E., Grand Rapids
Bonzelaar, Mrs. Marvin.....1612 Woodward, S.E., Grand Rapids
Booher, Mrs. Craig E.....2609 Albert Dr., S.E., Grand Rapids
Bosch, Mrs. Leon.....943 Santa Barbara, S.E., Grand Rapids
Bowman, Mrs. Harold E.....2209 Wilshire Dr., S.E., Grand Rapids
Boyce, Mrs. David C.....2310 Estelle Dr., S.E., Grand Rapids
Brace, Mrs. Fred C.....2311 Academy Dr., N.E., Grand Rapids
Braunschneider, Mrs. G. Edward..2231 Clover Dr., N.W., Grand Rapids
Bratt, Mrs. Harvey....1121 Giddings, S.E., Grand Rapids
Brink, Mrs. J. Russell.....1901 Argentina Dr., S.E., Grand Rapids
Brook, Mrs. J. D.....65 S. Wilson Ave., Grandville
Bull, Mrs. Frank.....65 S. State St., Sparta
Burhans, Mrs. John B.....14445 Seminole Rd., S.E., Grand Rapids
Burroughs, Mrs. Frank M., Jr.....159 S. Ottawa Grandville

Capps, Mrs. Sam.....2059 Wilshire Dr., S.E., Grand Rapids
Carpenter, Mrs. Luther.....1818 Argentina Dr., S.E., Grand Rapids
Caukins, Mrs. Howard.....1310 Woodcliff Dr., S.E., Grand Rapids
Cayce, Mrs. Wm.....640 Kent Hills Rd., S.E., Grand Rapids
Champion, Mrs. John.....2222 Englewood Dr., S.E., Grand Rapids
Chandler, Mrs. Donald.....3347 East Belt Line, S.E., Grand Rapids
Chase, Mrs. R. Jack....849 Maxwell, S.E., Grand Rapids
Clahassey, Mrs. Erwin.....427 Mulford Dr., S.E., Grand Rapids
Clawson, Mrs. Carroll.....748 Ethel, S.E., Grand Rapids
Claytor, Mrs. Robert.....2032 Coit, N.E., Grand Rapids
Colvin, Mrs. W. G.....7380 Valhalla Dr., Alto
Crane, Mrs. Harold D.....2221 Madison, S.E., Grand Rapids
Cremer, Mrs. John.....14115 Ironwood Dr., Marne
Crissman, Mrs. Richard K.....7525 Alaska, Caledonia
Cuncannan, Mrs. M. Edward.....1745 Eastern, S.E., Grand Rapids
Currier, Mrs. Fred P.....955 Floral Dr., S.E., Grand Rapids

Damstra, Mrs. Harold J.....1022 Santa Cruz, S.E., Grand Rapids
Dassel, Mrs. Paul M.....2641 Boston, S.E., Grand Rapids
Davis, Mrs. David B.....266 Pettis Rd., Ada
Dawson, Mrs. W. Douglas.....1021 Iroquois Dr., S.E., Grand Rapids
DeBoer, Mrs. Clarence J.....191 Elwood, Grandville
DeBoer, Mrs. Guy.....41 Maryland, N.E., Grand Rapids
DeMaagd, Mrs. Gerald.....185 S. Monroe, Rockford
DeMol, Mrs. Richard....2426 College, S.E., Grand Rapids
Denham, Mrs. Robert H.....535 Plymouth, S.E., Grand Rapids
DeVel, Mrs. Leon.....739 Plymouth, S.E., Grand Rapids
DeVries, Mrs. Daniel....82 Maryland, S.E., Grand Rapids
Dewey, Mrs. Kent A.....3205 Bonnell, S.E., Grand Rapids
DeYoung, Mrs. Maynard T.....12 Mile Rd., N.W., Sparta
DeYoung, Mrs. Thies.....35 E. Divison, Sparta
Diskey, Mrs. Donald.....1911 Lake Michigan Dr., N.W., Grand Rapids
Dixon, Mrs. Willis L.....420 E. Fulton, Grand Rapids
Dixon, Mrs. Willis L.....2335 Boston St., S.E., Grand Rapids
Docter, Mrs. Luebert.....3496 Lake Dr., S.E., Grand Rapids
Doyle, Mrs. John L.....2438 Paris, S.E., Grand Rapids
Droste, Mrs. James.....1545 Seminole Dr., S.E., Grand Rapids

Eaton, Mrs. Robert M.....243 Aurora, S.E., Grand Rapids
Eggleston, Mrs. H. R.....117 Page St., S.E., Grand Rapids
Eldersveld, Mrs. Herman C.....977 Powers, N.W., Grand Rapids

Failing, Mrs. John F.....2617 Lake Michigan Dr., N.W., Grand Rapids
Falbisaner, Mrs. George.....2527 Plainfield Ave., N.E., Grand Rapids
Farber, Mrs. Charles....2930 Bonnell, S.E., Grand Rapids
Faust, Mrs. Lawrence W.....405 Manhattan Rd., S.E., Grand Rapids
Fellows, Mrs. Kenneth.....3341 Ashton Rd., S.E., Grand Rapids
Ferguson, Mrs. James.....2230 Hall, S.E., Grand Rapids
Ferguson, Mrs. Lynn.....625 Cambridge, S.E., Grand Rapids
Ferguson, Mrs. Ward S.....2117 Hall St., S.E., Grand Rapids
Ferrand, Mrs. Louis G.....119 N. Monroe, Rockford
Fitts, Mrs. Ralph L.....1930 Michigan Rd., N.E., Grand Rapids
Fitzgerald, Mrs. Erwin L.....2005 Hall St., S.E., Grand Rapids
Flintoff, Mrs. Wm. M.....720 Ethel Ave., S.E., Grand Rapids
Flynn, Mrs. J. Donald.....1034 Santa Barbara, S.E., Grand Rapids
Foshee, Mrs. John F.....315 Madison Ave., S.E., Grand Rapids
Foxworthy, Mrs. John.....315 Madison Ave., S.E., Grand Rapids
Frantz, Mrs. Charles..1860 Lake Dr., S.E., Grand Rapids
Fuller, Mrs. E. Hemingway.....260 Paris, S.E., Grand Rapids
Fuller, Mrs. Wm. J.....2633 Frederick, S.E., Grand Rapids

Gamm, Mrs. Kenneth E.....456 Morris Ave., S.E., Grand Rapids
Gibbs, Mrs. Floyd F.....2140 Romence, N.E., Grand Rapids
Gilbert, Mrs. Ralph H.....1125 San Jose, S.E., Grand Rapids
Gillett, Mrs. Frederick..755 San Jose, S.E., Grand Rapids
Good, Mrs. C. Robert.....2111 Buttrick, Ada
Gouwens, Mrs. Willis.....2903 Coit, N.E., Grand Rapids
Grant, Mrs. Lee O.....2263 Eldorado, S.E., Grand Rapids
Grass, Mrs. Edward J...858 Pinecrest, S.E., Grand Rapids
Gray, Mrs. Fred B.....3025 Mary St., S.E., Grand Rapids
Griffith, Mrs. Lucian S.....1934 Sherman, S.E., Grand Rapids
Gunn, Mrs. James....2519 Westboro, N.E., Grand Rapids
Gunning, Mrs. R. E. Lee.....1960 Michigan Ave., N.E., Grand Rapids

Haeck, Mrs. Wm.....1225 Franklin, S.E., Grand Rapids
Hagerman, Mrs. David B.....1551 Seminole Rd., S.E., Grand Rapids
Hamp, Mrs. Arthur.....3985 Reeds Lake Blvd., S.E., Grand Rapids
Heaton, Mrs. John R.....2102 Anderson Dr., S.E., Grand Rapids
Heetderks, Mrs. Dewey R.....240 Edgehill Dr., S.E., Grand Rapids
Hesselschwerdt, Mrs. Donald.....932 Floral Dr., S.E., Grand Rapids
Hodgen, Mrs. John T.....2320 Fulton, E., Grand Rapids
Hoekstra, Mrs. Andrew L.....2040 Cambridge, S.E., Grand Rapids
Holcomb, Mrs. Winslow.....1441 Breton Rd., S.E., Grand Rapids
Hollander, Mrs. Stephen.....2027 Godwin, S.E., Grand Rapids
Hoogerhyde, Mrs. Jack.....3355 Ashton Rd., S.E., Grand Rapids
Houghton, Mrs. Richard C.....525 Glenwood, S.E., Grand Rapids
Hoyt, Mrs. Robert L.....954 Cambridge, S.E., Grand Rapids
Hudson, Mrs. Harry.....1540 Woodlawn, S.E., Grand Rapids
Hufford, Mrs. A. Ray.....2660 Oakwood, S.E., Grand Rapids
Humphrey, Mrs. James C.....1134 Cambridge, S.E., Grand Rapids
Hutchinson, Mrs. F. Alan.....1115 Kenesaw, S.E., Grand Rapids
Hydrick, Mrs. Robert H.....2013 Hamstead Dr., S.E., Grand Rapids
Hyland, Mrs. Wm. A.....2833 Bonnell, S.E., Grand Rapids
Ireland, Mrs. H. D.....724 Fuller, N.E., Grand Rapids
Irwin, Mrs. Thomas C.....325 Morris, S.E., Grand Rapids
Jack, Mrs. Wm.....507 Plymouth, S.E., Grand Rapids
Jameson, Mrs. Fred..2711 Beechwood, S.E., Grand Rapids
Jaracz, Mrs. Walter J., Jr.....1561 Alexander, S.E., Grand Rapids
Jaracz, Mrs. Walter J., Sr.....36 Valley, S.W., Grand Rapids
Jarvis, Mrs. Charles..218 Sligh Blvd., N.E., Grand Rapids
Jellema, Mrs. John F.....1842 Houseman, N.E., Grand Rapids
Jenson, Mrs. Wm.....3147 Bonnell, S.E., Grand Rapids
Johns, Mrs. Donald....655 Broadview, S.E., Grand Rapids
Johnston, Mrs. Daniel W.....2739 Albert Dr., S.E., Grand Rapids
Jones, Mrs. Haven E.....2105 Godwin, S.E., Grand Rapids
Jones, Mrs. Horace.....3004 Oakwood Dr., S.E., Grand Rapids
Jui, Mrs. John O. L.....4161 Lake Michigan Rd., N.W., Grand Rapids
Kenny, Mrs. Leo J.....3855 Filkins Dr., N.E., Grand Rapids
Kessler, Mrs. Dale L.....1610 Robinson Rd., S.E., Grand Rapids
Kingma, Mrs. J. G.....935 Calvin, S.E., Grand Rapids
Klooster, Mrs. Gerald.....1919 Chamberlain, S.E., Grand Rapids
Knisken, Mrs. Paul W.....1555 Edgewood, S.E., Grand Rapids
Kooistra, Mrs. Henry P.....1564 Pontiac Rd., S.E., Grand Rapids
Kool, Mrs. Bernard....419 Comstock, N.E., Grand Rapids
Kreulen, Mrs. Henry J.....2452 Godwin, S.E., Grand Rapids
Krhovsky, Mrs. Frank.....130 Rexford Dr., S.E., Grand Rapids
Kruse, Mrs. Wm...2225 Wilshire Dr., S.E., Grand Rapids
Kuiper, Mrs. Klaire V.....2208 Madison, S.E., Grand Rapids
Landstra, Mrs. Robert.....1243 Fisk, S.E., Grand Rapids
Lang, Mrs. Ramon....2958 Hall St., S.E., Grand Rapids
Lanning, Mrs. Nicholas.....1050 Gladstone, S.E., Grand Rapids
Lentini, Mrs. Joseph.....2059 Anderson Dr., S.E., Grand Rapids
Lewis, Mrs. George.....30 Manchester Rd., S.E., Grand Rapids
Lieffers, Mrs. Harry.....331 Aurora, S.E., Grand Rapids
Lillie, Mrs. Walter....1038 Pinecrest, S.E., Grand Rapids
List, Mrs. Carl.....401 Lakeside Dr., S.E., Grand Rapids
Lukens, Mrs. Jack.....2847 Elmwood Dr., S.E., Grand Rapids
MacDonnell, Mrs. James.....185 Maryland, N.E., Grand Rapids
MacIntyre, Mrs. Dugald S.....185 Maryland, N.E., Grand Rapids
Mann, Mrs. Joseph D.....2435 Beechwood Dr., S.E., Grand Rapids
Marsh, Mrs. John P.....35 Bel Aire, N.E., Grand Rapids
Maynard, Mrs. Mason.....1231 Plymouth, S.E., Grand Rapids
McCormick, Mrs. John K.....401 Cheshire Dr., N.E., Grand Rapids
McDougal, Mrs. Wm.....639 Kent Hills Rd., N.E., Grand Rapids
McKenna, Mrs. Joseph.....2550 Beechwood, S.E., Grand Rapids
Meade, Mrs. Richard....759 San Jose, S.E., Grand Rapids
Meeuwsen, Mrs. Bernard.....664 Winchell, S.E., Grand Rapids
Mehney, Mrs. Gayle H.....3530 Cascade Rd., S.E., Grand Rapids
Miller, Mrs. J. Duane.....2565 Frederick Dr., S.E., Grand Rapids
Miller, Mrs. John J.....1580 Water, Marne
Moberg, Mrs. Carl..2547 Maplewood, S.E., Grand Rapids
Moleski, Mrs. Joseph....1911 Hall St., S.E., Grand Rapids
Moleski, Mrs. Leo T.....1462 Milton, S.E., Grand Rapids
Moleski, Mrs. Stanley.....1701 Pontiac Rd., S.E., Grand Rapids
Moll, Mrs. Arthur M.....3383 Fulton Rd., S.E., Grand Rapids
Moore, Mrs. Douglas..1862 Sherman, S.E., Grand Rapids
Mouw, Mrs. Dirk.....2352 Jefferson Dr., S.E., Grand Rapids
Mulder, Mrs. G. Arthur.....2047 Jefferson Dr., S.E., Grand Rapids
Mulder, Mrs. J. D.....3161 Baker Rd., S.E., Grand Rapids
Muldoon, Mrs. James P.....1833 Madison, S.E., Grand Rapids
Murphy, Mrs. Miles..1051 Monterey, S.E., Grand Rapids
Murray, Mrs. Raymond.....1540 Mackinaw Rd., S.E., Grand Rapids
Nanzig, Mrs. Reinard..924 Chippawa, S.E., Grand Rapids
Nickel, Mrs. Kenneth....1535 Groton, S.E., Grand Rapids
Northouse, Mrs. Peter B.....1524 Pontiac Rd., S.E., Grand Rapids
Notier, Victor A.....2601 Maplewood Dr., S.E., Grand Rapids
Oates, Mrs. Samuel M.....1855 Chamberlain, S.E., Grand Rapids
Oliver, Mrs. Walter W.....7241 Belding Rd., N.E., Rockford
Overbeek, Mrs. Ernest.....316 Sligh Blvd., N.E., Grand Rapids
Paalman, Mrs. Russell.....497 Marywood, N.E., Grand Rapids
Patterson, Mrs. Wilford.....2032 Godwin, S.E., Grand Rapids
Pattullo, Mrs. Marshall.....1330 Woodcliff Dr., S.E., Grand Rapids
Payne, Mrs. Allen.....5696 Fulton, E., Grand Rapids
Pearson, Mrs. Glenn A.....519 Greenwood, S.E., Grand Rapids
Pedden, Mrs. John.....230 El Centra Blvd., S.E., Grand Rapids
Pilling, Mrs. Warren C.....936 Orchard, S.E., Grand Rapids
Plekker, Mrs. Johannes.....2217 Wilshire Dr., S.E., Grand Rapids

Porter, Mrs. Howard P., J.....180 Greenwich, N.E., Grand Rapids
Posthuma, Mrs. Albert..2247 College, S.E., Grand Rapids
Postma, Mrs. Howard F.....3876 E. Omaha, Grandville
Pott, Mrs. Abraham L.....612 Kent Hills, N.E., Grand Rapids
Ptothro, Mrs. Winston.....465 Cheshire Dr., N.E., Grand Rapids
Puite, Mrs. Robert....1039 San Juan, S.E., Grand Rapids
Pyle, Mrs. Henery J...1016 Waltham, S.E., Grand Rapids
Raiman, Mrs. Robert J.....1128 Eastwood, S.E., Grand Rapids
Ralph, Mrs. L. Paul....953 Rosewood, S.E., Grand Rapids
Rasmussen, Mrs. Richard.....737 Cambridge, S.E., Grand Rapids
Reardon, Mrs. Daniel F.....829 Myrtle, N.W., Grand Rapids
Reus, Mrs. Wm.....334 Hobart, S.E., Grand Rapids
Reikse, Mrs. James M.....437 Hoyt, S.E., Grand Rapids
Ringenberg, Mrs. Jordan....1736 Cambridge Blvd., S.E., Grand Rapids
Rigterink, Mrs. John W.....1291 Cambridge Dr., S.E., Grand Rapids
Robb, Mrs. Charles S.....977 Gladstone, S.E., Grand Rapids
Robbert, Mrs. John.....3813 Omaha S.W., Grandville
Rodgers, Mrs. Wm. L.....2865 Lake Dr., S.E., Grand Rapids
Rooks, Mrs. Wendel H.....1158 Nixon, N.W., Grand Rapids
Roosenberg, Mrs. Wm.....535 Kendalwood Dr., N.E., Grand Rapids
Rosenweig, Mrs. Wm.....535 Kendalwood Dr., N.E., Grand Rapids
Roth, Mrs. Emil.....2414 Fulton, E., Grand Rapids
Ryan, Mrs. John.....1707 Wealthy, S.E., Grand Rapids
Sharda, Mrs. Martin.....916 Alger, S.E., Grand Rapids
Schaubel, Mrs. Howard J.....728 Cambridge Blvd., S.E., Grand Rapids
Schlosser, Mrs. Ralph..1922 Emerald, N.E., Grand Rapids
Schumacher, Mrs. Earle E.....2456 Beechwood, S.E., Grand Rapids
Scott, Mrs. Wm. B.....1300 Benjamin, S.E., Grand Rapids
Seime, Mrs. Reuben.....617 Plymouth Rd., S.E., Grand Rapids
Sevensma, Mrs. Eugene S.....2114 Anderson Dr., S.E., Grand Rapids
Sevensma, Mrs. Eugene S.....2255 Riverside Dr., N.E., Grand Rapids
Sevey, Mrs. Leon E.....1145 Benjamin, S.E., Grand Rapids
Shellman, Mrs. Millard W.....3152 Brentwood Dr., S.E., Grand Rapids
Sidell, Mrs. Richard.....927 Princeton Blvd., S.E., Grand Rapids
Siebers, Mrs. Bernard H.....988 Maryland, N.E., Grand Rapids
Slemons, Mrs. C. C.....530 Morris, S.E., Grand Rapids
Sluyter, Mrs. J. S.....938 Iroquois, S.E., Grand Rapids
Smith, Mrs. A. B.....1434 Byron, S.E., Grand Rapids
Smith, Mrs. Dean B.....2501 Maplewood, S.E., Grand Rapids
Smith, Mrs. Robert B.....1529 Burton, S.E., Grand Rapids
Snapp, Mrs. Carl F.....314 Madison Ave., S.E., Grand Rapids
Snider, Mrs. John D.....2130 Godwin, S.E., Grand Rapids
Snyder, Mrs. Clarence H.....3250 O'Brien Rd., S.W., Grand Rapids
Southwick, Mrs. Christopher.....760 San Jose, S.E., Grand Rapids
Southwick, Mrs. George H.....1935 San Lu Rae, S.E., Grand Rapids
Spencer, Mrs. Herbert H.....2559 Albert Dr., S. E., Grand Rapids
Steffensen, Mrs. Wallace.....443 Plymouth, S.E., Grand Rapids
Stonehouse, Mrs. G. G.....208 Pioneer Rd., S.E., Grand Rapids
Stoneman, Mrs. Fernley.....3940 E. Prairie, Grandville
Stover, Mrs. Virgil E.....860 Gladstone, S.E., Grand Rapids
Sugiyama, Mrs. Tetsuo.....1006 Hollywood, N.E., Grand Rapids
Swanson, Mrs. Alfred B.....1722 Breton Rd., S.E., Grand Rapids
Swenson, Mrs. Harold C.....1734 Adams, S.E., Grand Rapids
TenHave, Mrs. John.....3515 Briggs Blvd., N.E., Grand Rapids
Telego, Mrs. Anthony J.....1016 San Juan, S.E., Grand Rapids
Tesseinne, Mrs. Arthur J.....425 Cambridge, S.E., Grand Rapids
Teusink, Mrs. Harvey.....39 W. Beech St., Cedar Springs
Thompson, Mrs. Edward.....1401 Breton Rd., S.E., Grand Rapids
Thompson, Mrs. Frank.....4011 Reeds Lake Blvd., S.E., Grand Rapids
Thomson, Mrs. John W.....2029 Hall, S.E., Grand Rapids
Tidey, Mrs. Marcus B.....261 College, S.E., Grand Rapids
Tiffany, Mrs. Joseph..2322 Jefferson, S.E., Grand Rapids
Torgerson, Mrs. Wm. R.....536 Belvedere Dr., S.E., Grand Rapids
Torgerson, Mrs. Wm., Jr.....2639 Hall St. S.E., Grand Rapids
Truog, Mrs. C. Peter.....1470 Briarcliff, Rte. #3, Grand Rapids
Uthoff, Mrs. Carl.....2760 Lake Dr., S.E., Grand Rapids
VandenBerg, Mrs. Allison.....1120 Cambridge, S.E., Grand Rapids
VandenBerg, Mrs. Henry J.....2933 Bonnell Rd., S.E., Grand Rapids
VandenBerg, Mrs. Wm.....2930 Oak Hollow, S.E., Grand Rapids
VanderMolen, Mrs. John.....1905 Diamond, N.E., Grand Rapids
VanderPloeg, Mrs. Wm.....965 Rosewood Dr., S.E., Grand Rapids
VanderVeer, Mrs. Corwin G.....841 Edna, S.E., Grand Rapids
VanDommelen, Mrs. Glenn.....1541 Philadelphia, S.E., Grand Rapids
VanGoor, Mrs. Kornelius.....2547 Willard, S.E., Grand Rapids
VanDuinne, Mrs. Henry.....414 Brookside, S.E., Grand Rapids
VanNoord, Mrs. Gelmer A.....6850 S. Division, Grand Rapids
VanPortfliet, Mrs. Paul.....555 Mulford Dr., S.E., Grand Rapids
VanWoerkom, Mrs. Daniel.....1946 Lake Michigan Dr., N.W., Grand Rapids
VanZwalenburg, Mrs. Benjamin.....2054 Anderson Dr., S.E., Grand Rapids
Veldman, Mrs. Harold E.....2447 Oakwood, N.E., Grand Rapids
Venema, Mrs. Jay R.....540 Overbrook, S.E., Grand Rapids
Vining, Mrs. Keats K., Jr.....934 Princeton, S.E., Grand Rapids
Wahby, Mrs. Elmer F.....2127 Wilshire Dr., S.E., Grand Rapids
Waterman, Mrs. Donald.....4221 Edinburgh, S.E., Grand Rapids
Webb, Mrs. Clarence.....250 Greenwich, N.E., Grand Rapids
Weller, Mrs. Keith.....1125 Orchard Ave. S.E., Grand Rapids
Wells, Mrs. Merrill.....2716 Bonnell, S.E., Grand Rapids
Wenger, Mrs. A. V.....132 Grand, N.E., Grand Rapids
Wenger, Mrs. John N.....112 Eastmanville, Coopersville
Westerhiff, Mrs. Robert J.....1038 Lake Grove, S.E., Grand Rapids
Whitehouse, Mrs. John.....1201 Colorado, S.E., Grand Rapids

Whittenberger, Mrs. Robert.....740 Kent Hills Rd., N.E., Grand Rapids
Wiess, Mrs. John....3200 Bonnell Dr., S.E., Grand Rapids
Wilderom, Mrs. Morris.....Rte. #2, Ada
Wilkes, Mrs. John B.....311 Aurora, S.E., Grand Rapids
Williams, Mrs. John R.....2059 College, S.E., Grand Rapids
Willits, Mrs. Paul....337 Manhattan, S.E., Grand Rapids
Wilson, Mrs. John.....703 Strobel, N.W., Grand Rapids
Winter, Mrs. Garrett E.....2316 Jefferson Dr., S.E., Grand Rapids
Wurz, Mrs. John F.....201 Norwood, S.E., Grand Rapids
Wyngarden, Mrs. Martin.....1333 Philadelphia, S.E., Grand Rapids
Yared, Mrs. Jerome A.....1901 Lake Dr., S.E., Grand Rapids
Zwemer, Mrs. Rodger J.....1420 Rossman, S.E., Grand Rapids

LAPEER COUNTY

Bishop, Mrs. Clare.....Almont
Boruch, Mrs. Leon R.....834 Liberty St., Lapeer
Buchanan, Mrs. Thos. K...182 Melanie Blvd., Imlay City
Burley, Mrs. David H.....Almont
Chapin, Mrs. Clarence D.....4727 Pine St., Columbiaville
Conway, Mrs. Charles E.....746 N. Monroe, Lapeer
DesJardins, Mrs. Elaine.....307 Washington, Lapeer
Dorland, Mrs. Clarke.....211 Lincoln, Lapeer
Doty, Mrs. James R.....1335 N. Monroe, Lapeer
Greavu, Mrs. Cornell, Jr.....North Branch
Heitsch, Mrs. Wm. C.....892 S. Saginaw, Lapeer
House, Mrs. Clifford L.....1026 N. Madison, Lapeer
Hunter, Miss Mary E.....1091 Pine, Lapeer
Hunter, Miss Frances I.....1091 Pine, Lapeer
Kiehle, Mrs. Anna.....706 N. Main, Lapeer
Kiehler, Mrs. E. G.....1608 Peppermill Rd., Lapeer
Lundgren, Mrs. Margaret.....450 Cedar St., Lapeer
McBride, Mrs. John R.....914 Liberty St., Lapeer
Rehn, Mrs. Adolph T.....Drawer A, Lapeer
Smith, Mrs. Glenn L.....6552 Imlay City Rd., Imlay City
Snowman, Mrs. Lynna.....306 N. Main, Lapeer
Thomas, Mrs. Lucille.....Huron St., North Branch
Thompson, Mrs. May F.....243 Clay St., Lapeer
Zemmer, Mrs. Harry B.....3634 Hannamon Rd., Columbiaville
Zolliker, Mrs. Carl R.....Drawer A, Lapeer

LENAWEE COUNTY

Abraham, Mrs. Arnold.....305 S. Church St., Hudson
Allen, Mrs. Russell.....Rte. #4, Adrian
Balice, Mrs. Francis W.....3800 Westwood Dr., Adrian
Benz, Mrs. Carl.....Rte. #4, Adrian
Berghuis, Mrs. John.....347 Budlong, Adrian
Blanchard, Mrs. Lowell E.....224 Seward St., Hudson
Blanden, Mrs. M. R.....5140 E. Monroe Rd., Tecumseh
Boyd, Mrs. James.....38 Westwood Dr., Adrian
Claxton, Mrs. W. T.....136 W. Chicago, Britton
Coak, Mrs. Richard D...308 W. Chicago Blvd., Tecumseh
Cook, Mrs. Carlton L.....740 N. Union St., Tecumseh
Dustin, Mrs. Richard E.....309 N. Union St., Tecumseh
Eddy, Mrs. Howard.....349 S. Main St., Adrian
Gamble, Mrs. Kenneth.....Rte. #3, Hudson
Gilkey, Mrs. Wm.....693 Stockard, Adrian
Hammel, Mrs. H. H.....108 Union St., Tecumseh
Hammel, Mrs. Richard T.....611 N. Evans, Tecumseh
Hamilton, Mrs. J. D.....1360 Oregon Rd., Adrian
Harrison, Mrs. R. E.....418 W. Adrian, Blissfield
Heffron, Mrs. Harold.....748 W. Maumee St., Adrian
Heffron, Mrs. Howard.....Rte. #1, Adrian
Helzerman, Mrs. Ralph..612 W. Chicago Blvd., Tecumseh
Hinshaw, Mrs. Warren.....950 Riverside Dr., Adrian
Hunter, Mrs. T. Bailey....114 E. Michigan Ave., Adrian
Marsh, Mrs. R. G. B.....610 W. Logan St., Tecumseh
Miller, Mrs. Lynford.....308 E. Maumee St., Adrian
O'Connor, Mrs. Archie.....122 Locust St., Clinton
Parker, Mrs. Donald A.....454 S. Main St.. Adrian
Patmos, Mrs. Bernard.....16 Maumee St., Adrian
Phelan, Mrs. Alvin J.....405 Seneca St., Tecumseh
Rogers, Mrs. J. D.....1232 W. Maple Ave., Adrian
Sarapo, Mrs. Donato.....115 E. Michigan St., Adrian
Sayre, Mrs. P. P.....228 S. Main St., Onsted
Stafford, Mrs. L. J.....8 Westwood Dr., Adrian
Stewart, Mrs. Landis.....214 E. Butler, Adrian
Whitehouse, Mrs. K. H.....128 S. Summitt, Morenci
Whitney, Mrs. Oat.....443 State St., Adrian
Wolfe, Mrs. Marvin.....143 Park St., Adrian
Wynn, Mrs. George H.....1115 W. Maumee St.. Adrian

LIVINGSTON COUNTY

Barton, Mrs. Thomas A.....100 Lucy Rd., Howell
Clarke, Mrs. Niles A.....723 Spencer Rd., Brighton
Hauer, Mrs. R. F.....Fowlerville
Hill, Mrs. Harold C.....320 Madison St., Howell
Hoffman, Mrs. S. L.....417 Maple St., Howell
Huntington, Mrs. Harry C.....219 S. Walnut St., Howell
May, Mrs. Louis A.....420 Riddle St., Howell
Mitchell, Mrs. Abbott B.....3505 Mason Rd., Howell
Polack, Mrs. Robert T.....221 Fowler St., Howell
Sigler, Mrs. Hollis G.....309 N. Michigan, Howell
Walker, Mrs. Enos S.....4485 Cordley Lake Rd., Lakeland
Woodworth, Mrs. Edwin S.....433 Caledonia, Howell

MACOMB COUNTY

Audretsch, Mrs. Frank E.....36275 Alfred St., New Baltimore
Banting, Mrs. O. Fenton.....Main St., Richmond
Barker, Mrs. John G.....22420 Statler Blvd., St. Clair Shores
Bower, Mrs. Allen.....Armada
Bryce, Mrs. James W.....22476 Lange, St. Clair Shores
Buckley, Mrs. Daniel J.....160 S. Walnut, Mt. Clemens
Charbeneau, Mrs. Patrick.....226 Wellington Crescent, Mt. Clemens
Cherup, Mrs. Nick.....24215 Hill, Centerline
Collon, Mrs. David.....217 W. St. Clair, Romeo
Corbett, Mrs. John.....22924 Edgewood, St. Clair Shores
Croman, Mrs. Jos. M., Jr...131 Market St., Mt. Clemens
Curatolo, Mrs. Victor.....28 Breitmeyer Pl., Mt. Clemens
Deal, Mrs. Harold..80 S. Edgewood, Grosse Pointe Shores

DePaulis, Mrs. Dario.....21636 Winshall, St. Clair Shores
Dudzinski, Mrs. Edmund J.....36818 E. Main, New Baltimore
Ebner, Mrs. Charles M...22925 Colony, St. Clair Shores
Engels, Mrs. John A.....36050 Friday St., Richmond
Finn, Mrs. J. A.....21321 Remick Dr., Mt. Clemens
Goldman, Mrs. Bernard.....245 Espalande, Mt. Clemens
Hartmann, Mrs. Waldemar B.....43481 N. Gratiot, Mt. Clemens
Heine, Mrs. Austin W...38567 Riverside Dr., Mt. Clemens
Herrington, Mrs. Clark.....629 Chippewa, Mt. Clemens
Jankoska, Mrs. Richard.....22119 13 Mile Rd., St. Clair Shores
Juliar, Mrs. Joseph.....19 Lodewyck, Mt. Clemens
Kane, Mrs. John.....38388 Harper, Mt. Clemens
Kane, Mrs. Peter V.....1340 Hampton, Mt. Clemens
Kane, Mrs. Wm. J.....171 North, Mt. Clemens
Kirker, Mrs. J. Gilmore.....68259 Main, Richmond
Lapp, Mrs. Charles.....5752 Dickerson, Detroit
Maguire, Mrs. Andrew H.....45463 Van Dyke, Utica
Matthews, Mrs. Christian F.....135 Riverside Dr., Mt. Clemens
Maxim, Mrs. Edward....33140 Jefferson, St. Clair Shores
Moore, Mrs. George F.....20 Kendrick, Mt. Clemens
Mulligan, Mrs. Phillip T.....59 Ahrens, Mt. Clemens
Nance, Mrs. Marion E.....38570 Jefferson, Mt. Clemens
Peltier, Mrs. Stanley J.....151 North, Mt. Clemens
Persson, Mrs. G. A.....198 S. Gratiot, Mt. Clemens
Reitzel, Mrs. Rufus H.....1 Breitmeyer Pl., Mt. Clemens
Reizen, Mrs. Maurice..10564 Ludlow, Huntington Woods
Rickman, Mrs. Lewis D.....10 Howard St., Mt. Clemens
Rinkenberger, Mrs. Earl A...940 Chippewa, Mt. Clemens
Rivard, Mrs. Charles....32926 Jefferson, St. Clair Shores
Rizzo, Mrs. Albert.....14491 E. State Fair, Detroit 5
Rousseau, Mrs. Daniel L.....124 Belleview, Mt. Clemens
Ryan, Mrs. Jack.....2214 Beverly Blvd., Berkley
Salot, Mrs. Russell F.....11 Breitmeyer Pl., Mt. Clemens
Scher, Mrs. Joseph.....130 Belleview, Mt. Clemens
Scher, Mrs. Sydney.....39740 Cove, Mt. Clemens
Siegfried, Mrs. Edward G.....77 Scott Blvd., Mt. Clemens
Sims, Mrs. Wm.....847 Harrington, Mt. Clemens
Singer, Mrs. Nelson.....15751 Charles Rd., East Detroit
Smith, Mrs. Milton C.....117 Lodewyck, Mt. Clemens
Stepka, Mrs. Joseph E.....7273 Powers Ct., Utica
Strempek, Mrs. Walter.....8610 Pippin, Romeo
Stryker, Mrs. Oscar D.....31032 Jefferson Ave., St. Clair Shores
Stubbs, Mrs. Clayton.....126 S. Gratiot, Mt. Clemens
Stubbs, Mrs. Harold W...29240 Grandview, Mt. Clemens
Suskta, Mrs. Adolph....22454 Rio Vista, St. Clair Shores
Suzuki, Mrs. Mac.....14231 Oak Park Blvd., Oak Park
Tinkey, Mrs. L. Leo.....23336 Westbury Dr., St. Clair Shores
Thompson, Mrs. Alfred A.....35 Miller, Mt. Clemens
Ullrich, Mrs. Russell W.....421 Robertson, Mt. Clemens
Whitley, Mrs. Alec.....21707 Erben, Mt. Clemens
Wiley, Mrs. Bruce D.....45223 Cass, Utica
Wolfson, Mrs. Victor W...272 Riverside Dr., Mt. Clemens
Wyte, Mrs. Wm.....38616 Lake Shore Dr., Mt. Clemens

MARQUETTE COUNTY

Acocks, Mrs. James R.....Morgan Heights, Marquette
Amolsch, Mrs. Arthur L.....321 Pine, Marquette
Bennett, Mrs. Matthew C.....409 E. Ohio, Marquette
Bertucci, Mrs. Joseph.....517 N. Pine, Ishpeming
Bolitho, Mrs. T. Boyd.....Birch Grove, Marquette
Bottom, Mrs. C. N.....624 N. Third, Marquette
Burke, Mrs. R. A.....Palmer
Carter, Mrs. James M.....1417 Norway, Marquette
Casler, Mrs. Wilbur L.....127 E. Ridge, Marquette
Conley, Mrs. Donal T.....201 W. Nicolet, Marquette
Cookinham, Mrs. Franklin T...1702 Mildred, Marquette
Cooperstock, Mrs. M.....402 E. Ridge, Marquette
d'Adesky, Mrs. Raymond.....Nicolet, Marquette
Drury, Mrs. Charles P.....414 E. Hewitt, Marquette
Elzinga, Mrs. Eugene.....415 E. Hewitt, Marquette
Erickson, Mrs. A. W.....621 N. Fourth, Ishpeming
Erickson, Mrs. Douglas W.....621 N. Fourth, Ishpeming
Green, Mrs. S. J.....405 N. First, Ishpeming
Hettle, Mrs. Paul J.....337 E. Hewitt, Marquette
Hornbogen, Mrs. D. P.....320 Cedar, Marquette
Howe. Mrs. Lloyd W.....453 E. Michigan, Marquette
Huffman, Mrs. E. R.....1515 Lincoln, Marquette
Jaedecke, Mrs. R. G.....1427 N. Second, Ishpeming
Knutson, Mrs. George D.....120 Main. Negaunee
Koenig, Mrs. Harry.....413 E. Ohio, Marquette
Lambert, Mrs. Warren C.....347 E. Ridge, Marquette
Lindquist, Mrs. Leo A.....119 E. Magnetic, Marquette
Lyons, Mrs. James W.....Lakewood, Marquette
Markham, Mrs. Isabel P.....401 N. Fourth, Marquette
Matthews, Mrs. Norman L.....807 W. Kaye, Marquette
Moore, Mrs. Bert.....U.S. 41, Negaunee
Narotsky, Mrs. Archie S.....628 E. Ridge, Ishpeming
Rosenbaum, Mrs. Louis.....2004 Deer Lake, Ishpeming
Sabin, Mrs. Fred C.....Cedar, Marquette
Schultz, Mrs. Marvin H.....323 E. College, Marquette
Stein, Mrs. Paul G.....Harvey, Marquette
Swinton, Mrs. A. L.....430 E. Arch, Marquette
Williams, Mrs. R. G.....Deer Lake, Ishpeming
Wright, Mrs. K. Charles.....3156 Lake Shore Blvd., Marquette
Youngquist, Mrs. L. L.....528 E. Arch, Marquette

MASON COUNTY

Bacon, Mrs. Herbert G.....125 W. State St., Scottville
Boldyreff, Mrs. Ephraim B.....Custer
Boon, Mrs. A. Floyd.....203 N. Ferry St., Ludington
Clark, Mrs. Harry.....501 N. Lakeshore Dr., Ludington
Craymer, Mrs. Austin.....420 N. Rath Ave., Ludington
Dykstra, Mrs. Charles.....Scottville
Garneau, Mrs. Robert.....308 E. Court St., Ludington
Goulet, Mrs. Leo.....510 E. Ludington Ave., Ludington
Hoffman, Mrs. Howard B.....604 E. Ludington Ave., Ludington
Martin, Mrs. W. S.....107 W. Ludington Ave., Ludington
Morris, Mrs. Roger.....405 E. Court St., Ludington
Ostrander, Mrs. Robert.....Lakewood Dr., Ludington
Paukstis, Mrs. Charles A.....502 N. Lakeshore Dr., Ludington
Spencer, Mrs. C. M.....Scottville
Sutter, Mrs. Wm. F.....208 N. Robert St., Ludington
Switzer, Mrs. G. A.....302 Lakeshore Dr., Ludington

MECOSTA-OSCEOLA-LAKE COUNTIES

Bruggema, Mrs. Jacob.....Evart
Campbell, Mrs. J. B.....320 Division, Big Rapids
Chass, Mrs. Leo.....417 W. Upton, Reed City
Franklin, Mrs. Benjamin.....Remus
Haldeman, Mrs. Jack.....228 S. Warren, Big Rapids
Hickox, Mrs. Leland.....312 S. Warren, Big Rapids

Ivkovich, Mrs. Paul.....108 E. Upton, Reed City
Kazmers, Mrs. E.....Lakeview
Kilmer, Mrs. Paul.....350 W. Upton, Reed City
Kowaleski, Mrs. Edward.....Remus
London, Mrs. John.....Lakeview
Marsten, Mrs. Leo L.....Lakeview
Nelson, Mrs. Lorenzo.....Baldwin
Tyson, Mrs. James.....324 Mecosta, Big Rapids
VanAuken, Mrs. Edward.....115 N. Stewart, Big Rapids
Waters, Mrs. James E.....624 S. Michigan, Big Rapids
White, Mrs. John A.....123 Cedar, Big Rapids
Yoe, Mrs. Gordon.....309 Rust, Big Rapids

MENOMINEE COUNTY

Angeberg, Mrs. Nils.....221 First St., Menominee
Brukardt, Mrs. Herman.....714 14th Ave., Menominee
Clay, Mrs. Joel.....1031 1st St., Menominee
Dewane, Mrs. Francis.....1409 14th Ave., Menominee
Flanagan, Mrs. Clarence.....915 11th Ave., Menominee
Glickman, Mrs. Grant.....1603 32nd Ave., Menominee
Gonty, Mrs. Arthur.....Frontenac Beach, Menominee
Heidenreich, Mrs. John.....Daggett
Jones, Mrs. Wm.....101 15th Ave., Menominee
Jones, Mrs. Wm., Jr.....1834 1st Ave., Menominee
Kerwell, Mrs. Karm.....Stephenson
Olson, Mrs. Robert.....1715 22nd Ave., Menominee
Peterson, Mrs. Alan.....Daggett
Towey, Mrs. John.....Pine Crest Sanitorium, Powers
Whitmarsh, Mrs. Thomas.....Stephenson

MIDLAND COUNTY

Ashcom, Mrs. Richard.....15 Dartmoon, Midland
Ballmer, Mrs. Robert.....1111 W. Sunset, Midland
Bennier, Mrs. Joseph.....Box 26, Sanford
Blackhurst, Mrs. J. Frederick....4506 Hampshire, Midland
Blackhurst, Mrs. Robert T.....306 W. Meadowbrook, Midland
Bowsher, Mrs. Robert E...907 St. Andrews Dr., Midland
Bridge, Mrs. Robert.....3600 Boston, Midland
Buskirk, Mrs. Maurice D.....310 W. Nelson, Midland
Carsons, Mrs. Ada.....1414 Sugnet Rd., Midland
Chenoweth, Mrs. M. B.....3066 E. Gordenville Rd., Midland
Cook, Mrs. Wm.....1104 W. Park Dr., Midland
Devlin, Mrs. James A.....4300 Washington, Midland
Fields, Mrs. Dozier.....515 W. Main, Midland
Gay, Mrs. Harold....4689 Ruhle Rd., R.R. #1, Coleman
Giering, Mrs. Charles.....3703 Hillgrove Ct., Midland
Gordon, Mrs. Harold.....1423 Clover Ct., Midland
Grant, Mrs. Robert P.....210 E. Sunset, Midland
Gronemeyer, Mrs. Wm.....1009 St. Andrews Dr., Midland
Heffernan, Mrs. Daniel D...1213 E. St. Andrews, Midland
High, Mrs. C. V.....3115 Isabella Rd., Midland
Holder, Mrs. Benjamin.....534 Woodcock, Midland
Howe, Mrs. Irvin.....1115 Sugnet W., Midland
Howell, Mrs. Richard.....709 Maple St., Midland
Ittner, Mrs. Martin.....509 W. Sugnet, Midland
Kaasa, Mrs. Laurin.....2011 Ashman, Midland
Landsborough, Mrs. Hester.....127 W. Nelson, Midland
Linsemann, Mrs. Karl L.....2064 Manor Dr., Midland
Marks, Mrs. V. A.....4405 Hampshire, Midland
Maynard, Mrs. Wm.....Coleman
Meisel, Mrs. E. H.....413 Lingle Lane, Midland
Moench, Mrs. G. F.....Sanford
O'Hara, Mrs. Bernard.....3807 Applewood Dr., Midland
Pike, Mrs. Melvin.....220 W. Nelson, Midland
Pollock, Mrs. Robert.....123 Jones Ct., Midland
Poznak, Mrs. L. A.....1411 Crane Ct., Midland
Randolph, Mrs. Stephen.....410 Jerome, Midland
Redmon, Mrs. Wm.....1308 Airfield Lane, Midland
Schoff, Mrs. Charles.....2708 Glendale, Midland
Shriner, Mrs. John.....1524 Airfield Lane, Midland
Sherk, Mrs. J. W.....161 Revere St., Midland
Stewart, Mrs. Richard.....2721 Scott, Midland
Willison, Mrs. Charles.....3812 Greenfield Ct., Midland
Yobst, Mrs. James.....425 St. Charles, Midland

MONROE COUNTY

Barker, Mrs. Vincent.....104 W. Noble, Monroe
Barrett, Mrs. Clarence.....2133 Hollywood Dr., Monroe
Blakey, Mrs. Leonard.....330 Godfroy Ave., Monroe
Bond, Mrs. W. W.....475 Hollywood Dr., Monroe
Burroughs, Mrs. John.....322 S. Macomb, Monroe
Cigany, Mrs. Z. B.....1402 Monroe St., Carleton
Douglas, Mrs. Dale.....151 Hollywood Dr., Monroe
Dronginis, Mrs. Edward.....3085 4th Del Bch., Monroe
Flanders, Mrs. John.....1434 Hurd Rd., Monroe
Frary, Mrs. Robert.....505 Strassbury Rd., Monroe
Freud, Mrs. John W.....212 Hollywood Dr., Monroe
Hnatchuk, Mrs. N.....Petersburg
Hunter, Mrs. Marion.....12250 Lakeshore Dr., LaSalle
Kelso, Mrs. S. Newton.....336 Cole Rd., Monroe
LaBoe, Mrs. Edward.....424 Hollywood Dr., Monroe
Lammers, Mrs. Gerald.....Ida
Loan, Mrs. George.....1043 Riverview, Monroe
Long, Mrs. Edgar.....715 Hollywood Dr., Monroe
McDonald, Mrs. T. A.....467 Hollywood Dr., Monroe
McMillin, Mrs. John.....116 Hollywood Dr., Monroe
Meier, Mrs. Walter.....306 S. Macomb, Monroe
Middleton, Mrs. W. S.....427 Hollywood Dr., Monroe
Reisig, Mrs. Albert.....430 Hollywood Dr., Monroe
Sanger, Mrs. E. J.....716 Hollywood Dr., Monroe
Siffer, Mrs. J. J.....32 S. Macomb, Monroe
Sisman, Mrs. Bernard.....524 Hollywood Dr., Monroe
Streicher, Mrs. R. G.....315 Colonial Dr., Monroe
Tomlinson, Mrs. L. H.....Newport
Wagar, Mrs. Spencer.....711 Hollywood Dr., Monroe
Weeks, Mrs. Vern.....417 E. Elm, Monroe
Wilkins, Mrs. R. W.....4940 W. Albion Rd., Monroe
Williams, Mrs. Robert.....306 Godfroy Ave., Monroe

MUSKEGON COUNTY

Askam, Mrs. Ralph. .....1714 Leahy St., Muskegon
August, Mrs. Ralph.....64 W. Larch Ave., Muskegon
Beers, Mrs. Charles.....1164 Terrace St., Muskegon
Benedict, Mrs. Arthur.....1633 Clinton St., Muskegon
Bond, Mrs. Wm.....1724 Peck St., Muskegon
Bradshaw, Mrs. Park.....636 Ruddiman Ave., North Muskegon
Bultema, Mrs. James.....4078 Higate Rd., Muskegon

Busard, Mrs. R. I.....3910 Higate Rd., Muskegon
Christopherson, Mrs. J. W.....1276 Lake Shore Dr., Muskegon
Clapp, Mrs. Henry.....1585 Glen Ave., Muskegon
Closz, Mrs. Harold.....1727 Jefferson St., Muskegon
Dykhuizen, Mrs. Harold..962 Mona Brook Rd., Muskegon
Ellis, Mrs. N. J.....1408 Lexington Ave., Muskegon
Fleishman, Mrs. Norman.....1310 Moulton Ave., North Muskegon
Fles, Mrs. Robert.....1713 Sanford St., Muskegon
Folsom, Mrs. John.....2488 Pinegrove, Muskegon
Fugate, Mrs. Edward.....3484 Oseola Dr., Muskegon
Gaikema, Mrs. Everett....605 First St., North Muskegon
Garrison, Mrs. Robert.....556 Houston St., Muskegon
Griffith, Mrs. Robert.....1323 Fourth St., Muskegon
Hack, Mrs. Donald....3875 Lake Harbor Rd., Muskegon
Heneveld, Mrs. Edward.....82 W. Dale Ave., Muskegon
Heneveld, Mrs. Robert....1450 Montague Ave., Muskegon
Hill, Mrs. James.....2371 Hadden St., Muskegon
Holly, Mrs. Leland.....3349 Scenic Dr., Muskegon
Holly, Mrs. Leland, Jr.....3173 Scenic Dr., North Muskegon
Hopkins, Mrs. James.....2455 Winchester Dr., Muskegon
Hornbeck, Mrs. Wm.....2321 Hadden St., Muskegon
Jesson, Mrs. Robert....2344 Fifth St., Muskegon Heights
Johnston, Mrs. Everett....614 Pinewood, North Muskegon
Kane, Mrs. Thomas.....1185 Scenic Dr., Muskegon
Kerr, Mrs. Howard.....2378 Hadden St., Muskegon
Kislov, Mrs. Richard....2452 Pine Grove Ave., Muskegon
Kleaveland, Mrs. I. J.....654 Wendover Dr., Muskegon
Lauretti, Mrs. Emil.....1693 Jefferson St., Muskegon
Laurin, Mrs. Vilda.....3319 Scenic Dr., Muskegon
LaFevere, Mrs. Wm.....3033 Scenic Dr., Muskegon
Loder, Mrs. L. L.....Circle Dr., North Muskegon
Lowry, Mrs. Robert.....2442 Winchester, Muskegon
McNair, Mrs. John.....1595 Glen Ave., Muskegon
Medema, Mrs. Paul.....1661 Clinton St., Muskegon
Miller, Mrs. Phillip.....1652 Jefferson St., Muskegon
Mulder, Mrs. Lambertus.....3918 Henry St., Muskegon
Mulligan, Mrs. A. W.....123 W. Larch, Muskegon
Paterson, Mrs. Lester.....3458 Seneca Dr., Muskegon
Pettinga, Mrs. Frank.....4050 Quainton, Muskegon
Price, Mrs. Leonard.....1182 Terrace St., Muskegon
Risk, Mrs. Robert.....5980 Highgate Rd., Muskegon
Scholle, Mrs. Norbert.....3844 Highgate Rd., Muskegon
Shebesta, Mrs. Emil.....2342 Westwood Rd., Muskegon
Stone, Mrs. M. B.....1541 Peck St., Muskegon
Stubbart, Mrs. F. J.....1684 Hadden St., Muskegon
Swedenburg, Mrs. Robert.....2460 Pine Grove Ave., Muskegon
Swenson, Mrs. Leland.....3503 Scenic Dr., Muskegon
Teifer, Mrs. Charles.....2983 Dawes Rd., Muskegon
Tellman, Mrs. H. Clay.....590 Ranch Rd., Muskegon
Thornton, Mrs. Eugene.....Circle Dr., North Muskegon
Tyler, Mrs. Wm.....1572 Jefferson St., Muskegon
Vandervelds, Mrs. Clarence..4042 Loomis Dr., Muskegon
VanGelder, Mrs. Wm.....626 Cambridge Rd., Muskegon
Wagenaar, Mrs. Ed.....912 Mona Brook Rd., Muskegon
Wiersma, Mrs. Silas C.....1337 Peck St., Muskegon
Wildgen, Mrs. Bernard....975 W. Seminole Rd., Muskegon
White, Mrs. W. Gardner.....1185 Harbor Pte. Dr., Muskegon
Yegge, Mrs. John.....2133 Scenic Dr., Muskegon

NEWAYGO COUNTY

Black, Mrs. Benjamin F.....20 N. Darling, Fremont
Crowe, Mrs. Findlay C.....1024 Swain St., White Cloud
DeYoung, Mrs. Jess J.....207 E. Elm, Fremont
Emerick, Mrs. Robert W.....211 W. Maple, Fremont
Geerlings, Mrs. Lambert J...6725 W. Lake Dr., Fremont
Klein, Mrs. John P.....40 E. Pine, Fremont
Masters, Mrs. Brooker L.....Rte #1, Box 63-A, Fremont
O'Neill, Mrs. John W.....30 N. Gibbs, White Cloud
Paxton, Mrs. Robert E.....221 S. Stewart, Fremont
Pedelty, Mrs. Norman L.....8537 Spruce, Newaygo
VandenBerg, Mrs. Tunis.....413 E. Oak, Fremont
Veenschoten, Mrs. Girard.....Hesperia
Webb, Mrs. Roy O.....219 Woodrow, Fremont

NORTH CENTRAL COUNTIES

Barstow, Mrs. Richard C.....Gaylord
Blaha, Mrs. Vernon.....Grayling
Dosch, Mrs. Paul.....Grayling
Egle, Mrs. Joseph.....Gaylord
Oppy, Mrs. Charles.....Roscommon
Jardine, Mrs. Hugh M.....West Branch
Libke, Mrs. Richard.....Gaylord
Timreck, Mrs. Harold.....Gladwin
Waltz, Mrs. Paul.....West Branch
Wiergerink, Mrs. L. T.....West Branch

NORTHERN MICHIGAN COUNTIES

Allen, Mrs. Robert F.....Lincoln Place, Petoskey
Alm, Mrs. Bernard T.....619 Kalamazoo Ave., Petoskey
Crippen, Mrs. Edward F.....State St., Mancelona
Grate, Mrs. Lawrence E.....S. Prospect, Charlevoix
Kirk, Mrs. Thomas.....W. Sheridan, Petoskey
Knecht, Mrs. Richard.....1211 E. Mitchell, Petoskey
Lawrie, Mrs. Guy.....Mitchell St., Petoskey
Litzenburger, Mrs. Albert.....Pearl St., Boyne City
McKnight, Mrs. Robert.....Lincoln Place, Petoskey
Pearson, Mrs. Robert.....Pearl St., Boyne City
Rues, Mrs. Leonard.....Lockwood Ave., Petoskey
Saltonstall, Mrs. Gilbert.....Michigan St., Charlevoix
Taylor, Mrs. Robert M.....Lincoln Place, Petoskey

OAKLAND COUNTY

Adair, Mrs. Robin.....1026 Puritan, Birmingham
Albrecht, Mrs. Robert.....549 Grixdale, Pontiac
Arnkoff, Mrs. Harry.....140 Illinois, Pontiac
Aulie, Mrs. Hal.....5928 Orchard Bend, Birmingham
Baker, Mrs. Robert.....1129 Fairfax, Birmingham
Bannow, Mrs. Robert.....23 Keswik, Bloomfield Hills
Barker, Mrs. Charles.....4805 Charing Cross, Birmingham
Barker, Mrs. Howard....490 Martell Dr., Bloomfield Hills
Barrett, Mrs. John.....27821 Bloomfield, Lathrup Village
Bauer, Mrs. Bruce.....29424 Sherry, Madison Heights
Bauer, Mrs. Ernest W.....48 Roberts, Hazel Park
Bauer, Mrs. Ernest, Jr.....28708 Hales, Madison Heights
Beattie, Mrs. Willard.....314 W. Maplehurst, Ferndale
Beck, Mrs. Otto O.....767 Fairfax, Birmingham

Belknap, Mrs. Warren.....2020 Roseland, Royal Oak
Berger, Mrs. Charles..19621 Sunnybrook, Lathrup Village
Blackwell, Mrs. Leonard.....51 Niagara, Pontiac
Blakeney, Mrs. James.....17 Utica, Pontiac
Bookmyer, Mrs. Robert M.....452 Puritan, Birmingham
Boucher, Mrs. Roman.....5451 Brookdale, Birmingham
Bowers, Mrs. Charles.....199 Barrington, Pontiac
Bradley, Mrs. E. L.....231 Starr, Pontiac
Bradley, Mrs. G. T.....711 Overhill Rd., Birmingham
Brown, Mrs. Arnold....3599 Wards Pt. Dr., Orchard Lake
Budd, Mrs. Alexander....440 Lake Park Dr., Birmingham
Burger, Mrs. John.....32055 Telegraph Rd., Birmingham
Burgess, Mrs. C. M.....49 Oxford, Pleasant Ridge
Burke, Mrs. Chauncey..1123 Glengarry Cir., Birmingham
Byberg, Mrs. R. A.....10445 Talbot, Huntington Woods
Cefai, Mrs. Anthony.....42 Miami, Pontiac
Christensen, Mrs. W. L.....20766 Kennoway Dr., Birmingham
Christie, Mrs. Edward.....6239 Malvern Dr., Birmingham
Cline, Mrs. Alan.....3627 Shallowbrook Rd., Bloomfield Hills
Cobb, Mrs. Leon.....2378 Maplewood, Pontiac
Cobb, Mrs. Thomas.....4415 Motorway Dr., Pontiac
Conner, Mrs. Edward.....3856 S. Millerway, Birmingham
Conrad, Mrs. Cecil....2804 Square Lake Rd., Birmingham
Cooper, Mrs. Robert..26674 Humber, Huntington Woods
Cudney, Mrs. Ethan.....159 Marlborough, Pontiac
Darling, Mrs. C. G.....Lone Pine Ct., Bloomfield Hills
DeLawter, Mrs. Hilbert.....979 Westwood, Birmingham
Deutsch, Mrs. Wm...26695 York Rd., Huntington Woods
Dobski, Mrs. Edwin.....3350 Eastpointe Lane, Bloomfield Hills
Drew, Mrs. Dale.....2665 Windemere, Birmingham
Dunn, Mrs. Lewis.....18760 San Diego, Lathrup Village
Durocher, Mrs. Normand..2880 Old Orchard Dr., Pontiac
Ekelund, Mrs. Clifford.....149 Ottawa, Pontiac
Elder, Mrs. Edward, Jr.....230 Starr, Pontiac
Elliott, Mrs. Robert.....524 Mohegan, Birmingham
Endress, Mrs. Zac....1790 Tiverton Rd., Bloomfield Hills
Ensroth, Mrs. J. F.....2166 Wycliffe, Birmingham
Esslinger, Mrs. John.....4015 W. Orchard Hill Rd., Bloomfield Hills
Evseef, Mrs. George.....2685 Amberly, Birmingham
Fink, Mrs. L. Jerome.....9 Ottawa Dr., Pontiac
Flick, Mrs. John.....31510 Bellvine Trail, Birmingham
Foust, Mrs. Earl.....28145 Lathrup, Birmingham
Fox, Mrs. Ralph....855 Ridgewood Rd., Bloomfield Hills
Furlong, Mrs. Harold.....207 Navajo, Pontiac
Gaensbauer, Mrs. Ferdinand.....217 Illinois, Pontiac
Gates, Mrs. Edward.....3211 Allen Rd., Ortonville
Gehring, Mrs. Harold W.....17607 Magnolia Pkwy., Detroit 35
Gehringer, Mrs. Norman.....400 Yarmouth, Birmingham
Gell, Mrs. James.....415 Marlborough, Pontiac
Gerls, Mrs. Frank.....536 W. Huron, Pontiac
Gibson, Mrs. W. C.....216 E. Commerce, Milford
Gill, Mrs. Matthew.....3115 Franklin Rd., Bloomfield Hills
Gordon, Mrs. Clayton H.....1099 Cranbrook Rd. N., Birmingham
Green, Mrs. J. Donald.....347 S. Glenhurst Dr., Birmingham
Green, Mrs. Ralph.....24100 Stratford, Oak Park
Green, Mrs. W. M.....517 W. Iroquois, Pontiac
Grekin, Mrs. Thomas.....18699 Muirland, Detroit

Hackett, Mrs. Daniel.....782 Owega Dr., Pontiac
Hasner, Mrs. Robert.....1409 Catalpa Dr., Royal Oak
Hendren, Mrs. Owen..16 Barbour Lane, Bloomfield Hills
Henderson, Mrs. James.....22 Barbour Terrace, Bloomfield Hills
Hoekman, Mrs. Aben.....1740 Hamilton, Pontiac
Hoyt, Mrs. Donald....7530 Maceday Lake Rd., Clarkston
Huber, Mrs. Phillip J.....1724 Bassett, Royal Oak
Hubert, Mrs. John.....4955 Stoneyleigh, Bloomfield Hills
Hunter, Mrs. Donald.....2252 Pembroke, Birmingham
Ignatius, Mrs. Aram.....1120 E. 9 Mile Rd., Ferndale
Jacknow, Mrs. Albert S.....32227 Albert, Royal Oak
Jacobi, Mrs. R. C.....186 Spezia Dr., Oxford

Keeffe, Mrs. Eugene.....468 Williamsbury Dr., Bloomfield Hills
Kemp, Mrs. Felix.....85 Barrington, Pontiac
Kemp, Mrs. Lloyd.....1055 Yarmouth, Birmingham
Kendrick, Mrs. Harold.....260 Cherokee, Pontiac
Ketchum, Mrs. Jesse.....4219 Manor Rd., Royal Oak
Koehler, Mrs. Wm.....4416 Far Hill Dr., Birmingham
Kozonis, Mrs. Michael.....167 E. Iroquois, Pontiac
Kuhn, Mrs. Henry.....497 W. Golden Gate, Detroit 3
LaCore, Mrs. Ivan.....265 Josephine, Pontiac
Ladd, Mrs. James.....1023 S. Chester, Birmingham
Lahti, Mrs. Paul.....315 Fairfax, Birmingham
LaMarche, Mrs. Norman.....4139 Wakefield, Berkley
Landry, Mrs. Roy A.....3388 Coseyburn, Drayton Plains
Laux, Mrs. Phillip J., Jr.....250 N. Clifton, Birmingham
Leader, Mrs. Luther R.....394 Cranbrook Rd., Bloomfield Hills
Lichtwardt, Mrs. Harry.....4805 N. Harsdale, Bloomfield Hills
Ling, Mrs. Theodore.....351 Yarmouth Rd., Birmingham
Longyear, Mrs. Harold.....2082 W. Long Lake, Bloomfield Hills
Lyons, Mrs. Robert.....200 Oneida, Pontiac
Margulis, Mrs. Ralph R...561 Merritt Lane, Birmingham
Mehas, Mrs. C. P.....300 W. Hickory Grove Rd., Bloomfield Hills
Meinke, Mrs. Herman.....817 E. 8 Mile Rd., Hazel Park
Meisner, Mrs. H. E...25497 Hereford, Huntington Woods
Miller, Mrs. Arthur C.....17988 Buckingham, Birmingham
Miller, Mrs. Hazen.....1832 Greenleaf, Royal Oak
Mimura, Mrs. James.....4894 Haddington, Birmingham
Monroe, Mrs. John.....55 Neome, Pontiac
Newlander, Mrs. W. O.....485 N. Evansdale Dr., Birmingham
McConkie, Mrs. James.....2425 W. Lincoln, Birmingham
McHugh, Mrs. James.....32205 Eastlady, Birmingham
McInerny, Mrs. Thomas.....2026 Laurome, Royal Oak
McNeil, Mrs. H. H.....225 Hickory Grove Rd., Bloomfield Hills
McPhee, Mrs. Edward.....1051 Woodlea, Birmingham
McWhiter, Mrs. Wallace.....952 Washington Rd., Grosse Pointe 30
Miller, Mrs. Sidney.....709 Tottenham, Birmingham
Montgomery, Mrs. John.....18205 Wisconsin, Detroit
Nalepa, Mrs. Eugene.....2332 Rutherford Rd., Pontiac
Naz, Mrs. John.....2826 Orangegrove, Waterford
Neafie, Mrs. C. A.....493 Orchard Lake Ave., Pontiac
Norup, Mrs. John.....1772 Edgewood, Berkley
Nosanchuk, Mrs. J. I.....197 Cherokee, Pontiac
Olsen, Mrs. Richard E.....3325 Franklin Rd., Bloomfield Hills
Ott, Mrs. Harold.....1090 Lake Park, Birmingham
Palmer, Mrs. Hayden.....269 Ottawa Dr., Pontiac
Patrick, Mrs. Charles.....3620 Clintonville Rd., Pontiac
Payton, Mrs. Charles F.....1002 Pilgrim, Birmingham
Pearce, Mrs. James.....1227 Romney, Birmingham
Pelletier, Mrs. Charles J.....1914 Vinsetta, Royal Oak
Petroff, Mrs. George.....219 Cherokee Rd., Pontiac
Potter, Mrs. Kenneth..4333 Buckingham Rd., Royal Oak
Prather, Mrs. Frank W.....701 E. Liberty, Milford
Prosser, Mrs. Mostynn G...2854 Orangegrove, Waterford
Prust, Mrs. Frank.....3210 Oakhill Dr., Birmingham
Quinn, Mrs. James R.....2070 W. Valley Rd., Bloomfield Hills

Raynale, Mrs. George.....423 Tooting Lane, Birmingham
Read, Mrs. James A.....175 E. Hickory Grove Rd., Bloomfield Hills
Rech, Mrs. W. R.....1568 Welch Rd., Walled Lake
Reid, Mrs. Fred T.....18450 Riverside Dr., Birmingham
Riggs, Mrs. Harry....3499 Franklin Rd., Bloomfield Hills
Riker, Mrs. Aaron.....4050 Commerce Rd., Pontiac
Rowley, Mrs. L. G.....6700 Williams Lake Rd., Pontiac
Rupp, Mrs. Edson.....202 Crane, Royal Oak
Rush, Mrs. Alva D.....4023 Far Hill Dr., Birmingham
Russell, Mrs. Vincent....9 Elm Park Blvd., Pleasant Ridge
Ruva, Mrs. Joseph.....1280 Club Dr., Bloomfield Hills
Sanford, Mrs. Glenn A.....2666 Hickory Grove Rd., Rte. #3, Bloomfield Hills

Sansone, Mrs. Thomas J.....2184 Somerset Rd., Pontiac
Schirle, Mrs. Joseph.....330 Loberta Lane, Pontiac
Schmitt, Mrs. Phillip E.....1775 East 14 Mile Rd., Birmingham
Schuneman, Mrs. Howard.....1448 Inwoods Ct., Bloomfield Hills
Sempere, Mrs. Charles.....2225 Avondale, Pontiac
Sewell, Mrs. Geo...6181 Indianwood Trail, Birmingham
Shadley, Mrs. Maxwell.....94 Ottawa Dr., Pontiac
Sheffield, Mrs. L. C.....4651 Motorway Dr., Pontiac
Sheridan, Mrs. F. M.....1018 Pinehurst, Royal Oak
Simpson, Mrs. John R.....1822 Washington, Birmingham
Smith, Mrs. Donald.....135 Wenonah Dr., Pontiac
Smith, Mrs. George E.....4032 W. Orchard Hill Dr., Birmingham
Somers, Mrs. Donald C...4205 Valley Forge, Birmingham
Somerville, Mrs. Wm.....145 Cambridge, Pleasant Ridge
Spencer, Mrs. L. H.....26039 Huntington, Huntington Woods
Spohn, Mrs. Earle.....414 Henrie Blvd., Royal Oak
Spoehr, Mrs. Eugene..17 Elm Park Blvd., Pleasant Ridge
Stahl, Mrs. Harold.....850 Lapeer Rd., Oxford
Stanley, Mrs. Wm.....24 Cambridge Blvd., Pleasant Ridge
Steinberg, Mrs. Norman.....1028 Ardmoor, Birmingham
Sterling, Mrs. Robert R.....52 Oxford, Pleasant Ridge
Stratton, Mrs. Donald.....4367 W. Orchard Hill, Birmingham
Stuecheli, Mrs. Milton....1085 Willow Lane, Birmingham
Sutton, Mrs. Palmer.....30153 Bristol Lane, Birmingham
Tuck, Mrs. Raymond.....17 Delaware, Pontiac
Vandenberg, Mrs. Kenneth.....4045 Lakewood, Pontiac
VanFossen, Mrs. Albert W.....5990 Shaun Rd., Rte. #2, Orchard Lake
Virga, Mrs. George.....1602 Cedar Hill, Royal Oak
Walser, Mrs. Howard.....1300 Northlawn, Birmingham
Wake, Mrs. Douglas.....1406 Woodsboro, Royal Oak
Wangner, Mrs. Wm.....750 Ardmoor, Birmingham
Watson, Mrs. Thomas.....1320 Latham, Birmingham
Webber, Mrs. Lynn.....7350 Cooley Lake Rd., Pontiac
Wegrzyn, Mrs. George..2556 Endsleigh Rd., Birmingham
Wendling, Mrs. Dieter.....28749 Hollywood, Roseville
Wessels, Mrs. Robert.....2152 Tottenham, Birmingham
Westfall, Mrs. Edwin.....3745 Cumberland, Berkley
White, Mrs. R. Hamilton.....552 Mohegan, Birmingham
Wiant, Mrs. John L.....1205 Chesterfield, Birmingham
Wilkinson, Mrs. Arthur.....843 Arlington, Birmingham
Williams, Mrs. John P.....6570 Commerce Rd., Pontiac
Willis, Mrs. Robert.....26266 Evelyn Ct., Franklin
Ylvisaker, Mrs. John R.....829 Baker Ave., Clawson
Zacheim, Mrs. H. S.....13102 Talbot, Huntington Woods
Zimmerman, Mrs. Walter..32340 Sylvan La., Birmingham
Zujko, Mrs. Alphonse.....132 Illinois, Pontiac

OTTAWA COUNTY

Bloemendaal, Mrs. D. C.....W Main St., Zeeland
Boersma, Mrs. Vernon L.....97 E. 30th St., Holland
Bonzelaar, Mrs. Alvin.....888 Allen Dr., Holland
DeVries, Mrs. Peter.....526 Lafayette, Grand Haven
DeYoung, Mrs. Fred.....107 Barber, Spring Lake
Groat, Mrs. Frank.....633 Franklin, Grand Haven
Kemme, Mrs. Gerrit.....Rte. #3, Zeeland
Kools, Mrs. Willis C.....194 W. 11th St., Holland
Kuipere, Mrs. S. Walter.....93 E. 29th St., Holland
Rottschaefer, Mrs. Wm...1095 South Shore Dr., Holland
Rykema, Mrs. Wm.....Gladys St., Grand Haven
Smit, Mrs. George.....129 W. 24th St., Holland
Ten Pas, Mrs. Henry.....293 W. 29th St., Holland
VanAppledorn, Mrs. Chester.....1067 South Shore Dr., Holland
VandeWaa, Mrs. Alfred.....N. Division, Zeeland
Veenstra, Mrs. Bernard.....116 S. 5th St., Grand Haven
VerDuine, Mrs. John.....1615 Gladys, Grand Haven
Wells, Mrs. Kenneth.....411 Barber, Spring Lake
Westrate, Mrs. Wm., Sr.....617 State St., Holland
Westrate, Mrs. Wm., Jr.....55 W. 14th St., Holland
Winter, Mrs. John.....726 State St., Holland
Winter, Mrs. Wm.....630 State St., Holland
Yff, Mrs. John.....511 East Central, Zeeland

SAGINAW COUNTY

Ackerman, Mrs. Gerald L.....316 Brockway Pl., Saginaw
Albers, Mrs. M. J.....218 Ardussi St., Saginaw
Anderson, Mrs. Wm. K.....845 St. Andrews Rd., Saginaw
App, Mrs. Robert G.....1911 Seminole, Saginaw
Bass, Mrs. Vernon V.....460 Golfview Dr., Saginaw
Bishop, Mrs. H. M.....28 Benton Rd., Saginaw
Bratrud, Mrs. T. E.....29 W. Hannum Blvd., Saginaw
Brender, Mrs. Frederick.....105 Hubinger, Frankenmuth
Bruggers, Mrs. Lawrence.....2543 Woodbridge, Saginaw
Bucklin, Mrs. Robert.....2112 Adams Blvd., Saginaw
Bullington, Mrs. Bert M.....3 Davis Dr., Saginaw
Burnett, Mrs. Quinter M.....1714 Union, Saginaw
Butler, Mrs. Milton G.....1400 Hemmeter Rd., Saginaw
Busch, Mrs. Frank J.....40 E. Hannum, Saginaw
Cady, Mrs. Donald J.....2230 Hemmeter Rd., Saginaw
Cady, Mrs. Frederick J.....8590 Gratiot Rd., Saginaw
Cambridge, Mrs. Vernal W.....1219 Fitzhugh St., Saginaw
Campbell, Mrs. Lloyd A.....335 Brockway Pl., Saginaw
Caumartin, Mrs. Hugh T...1537 S. Washington, Saginaw
Chisena, Mrs. Peter R.....6227 Dixie Hwy., Bridgeport
Claytor, Mrs. Archer A.....3320 Janes Rd., Saginaw
Cortopassi, Mrs. Andre J.....326 S. Washington, Saginaw
Cortopassi, Mrs. Vital E.....221 Ardussi, Saginaw
Cory, Mrs. Charles W.....4 Ardmore Pl., Saginaw
Cresswell, Mrs. Thomas A...7210 Cresswell Rd., Saginaw
Curts, Mrs. James.....1 E. Hannum Blvd., Saginaw
Davenport, Mrs. Clyde P.....1625 Hanchett, Saginaw
DeYoung, Mrs. Wm. A.....30 Westbrook Ct., Saginaw
Durman, Mrs. Donald C.....1530 Ottawa Blvd., Saginaw
Ely, Mrs. Cecil W.....3735 Eton, Saginaw
Farley, Mrs. Albert W.....4470 Brockway, Saginaw
Feeheley, Mrs. Robert D.....1621 Coolidge St., Saginaw
Fleschner, Mrs. Thomas E.....744 W. Birch Run Rd., Birch Run
Galsterer, Mrs. Edwin C.....417 Brockway Pl., Saginaw
Gamon, Mrs. Adam E.....905 N. Michigan Ave., Saginaw
Gardner, Mrs. Joe H.....2503 Adams Blvd., Saginaw
Gerard, Mrs. Roy J.....450 Peace St., Saginaw
Gilmore, Mrs. Robert D.....246 W. Saginaw, Merrill
Goldner, Mrs. Richard D.....8285 Dixie Hwy., Frankenmuth
Gomon, Mrs. Louis D.....16 Edgewood Rd., Saginaw
Goodsell, Mrs. John O.....132 Graham St., Saginaw
Goodwin, Mrs. Jack E.....1021 State, Saginaw
Hand, Mrs. Eugene A.....1487 S. Washington Ave., Saginaw
Harvie, Mrs. Lloyd C.....417 Ardussi, Saginaw
Heavenrich, Mrs. Robert M.....112 Ardussi St., Saginaw
Heilbronn, Mrs. Duane B.....3785 Sheridan, Saginaw
Hester, Mrs. Eustace G.....2525 Warwick, Saginaw
Hill, Mrs. Victor L.....1270 Hemmeter, Saginaw
Howell, Mrs. Donald W.....2112 Gratiot, Saginaw
Hyslop, Mrs. Wm. T.....2008 Harry St., Saginaw
James, Mrs. John W.....253 Snow, Saginaw
Jarvi, Mrs. Rudolph M...1125 Washburn Pl. W., Saginaw
Johnstone, Mrs. Kermit.....1050 Fischer Dr., Saginaw
Kerr, Mrs. Wm. B.....1903 N. Bond, Saginaw
Keyes, Mrs. James T.....8152 Main, Birch Run

Kickham, Mrs. Edward F.....2525 Mershon St., Saginaw
Kolesar, Mrs. Robert C.....320 Ardussi St., Saginaw
Kowals, Mrs. Francis V.....1280 Glendale, Saginaw
Kramer, Mrs. Charles G.....2313 Greenbrush, Saginaw
Kretschmer, Mrs. Thomas V.....700 Remington, Saginaw
Lassingal, Mrs. Jules C.....1587 Delta Dr., Saginaw
Ling, Mrs. Kenneth C.....Hemlock
Lohr, Mrs. Oliver W.....614 Madison St., Saginaw
Lohr, Mrs. Thomas O.....325 Superior, Saginaw
Luger, Mrs. Frederick.....1970 N. River Rd., Saginaw
Lurie, Mrs. Robert I.....58 Davis Dr., Saginaw
MacKinnon, Mrs. Edwin D.....1616 Court St., Saginaw
Mahaney, Mrs. Thomas P.....212 S. Granger, Saginaw
Manning, Mrs. J. Edward.....6 Center Woods, Saginaw
Manning, Mrs. John W.....205 Ardussi St., Saginaw
Markey, Mrs. Francis L.....2011 Brockway, Saginaw
Markey, Mrs. Joseph P.....2425 Adams Blvd., Saginaw
Martzowka, Mrs. Wm. P...2330 Delaware Blvd., Saginaw
Mason, Mrs. Wm. G.....814 N. Fayette, Saginaw
Matthews, Mrs. Harry C.....1621 Lathrup, Saginaw
Mayne, Mrs. Harold E.....1585 Glendale, Saginaw
McEwen, Mrs. Wm. C.....820 Orchard Ct., Saginaw
McKinney, Mrs. Alexander R.....1403 Howard, Saginaw
Meyer, Mrs. Henry J.....6243 Dixie Hwy., Bridgeport
Miller, Mrs. Glenn F.....2224 Mershon, Saginaw
Morgrette, Mrs. James.....1286 Avalon, Saginaw
Mudd, Mrs. Richard D.....1001 Hoyt St., Saginaw
Murphy, Mrs. Albert P.....201 Superior St., Saginaw
Murray, Mrs. Morris J.....1625 Coolidge Rd., Saginaw
Nelson, Mrs. Oscar A.....1654 Lathrup, Saginaw
Northway, Mrs. Robert O.....12 Edgewood Rd., Saginaw
Novy, Mrs. Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Mrs. Carl P.....2505 Court St., Saginaw
Ostrander, Mrs. Frank W.....281 Washington St., Saginaw
Phillips, Mrs. Homer A.....2420 Adams Blvd., Saginaw
Pietz, Mrs. Frederick.....2139 Gratiot, Saginaw
Potvin, Mrs. Clifford D.....206 S. Carolina, Saginaw
Powers, Mrs. Robert F.....142 Wylie Ct., Saginaw
Prather, Mrs. Perry.....2230 Marlou Ct., Saginaw
Richards, Mrs. Ned. W.....1326 Delta Dr., Saginaw
Richter, Mrs. Harry J.....2305 Adams Blvd., Saginaw
Roggen, Mrs. Ivan.....402 W. Johnson, Zilwaukee
Ruskin, Mrs. David B.....246 Lockwood, Saginaw
Sample, Mrs. John T.....602 Rust, Saginaw
Schailberger, Mrs. Elmer G.....10164 Dixie Hwy., Birch Run
Schneider, Mrs. A. N.....1902 N. Bond, Saginaw
Schultz, Mrs. Frank R.....Chesaning
Sharp, Mrs. Martin C.....2202 Barnard, Saginaw
Shek, Mrs. John L.....2618 Court St., Saginaw
Sheldon, Mrs. Suel A.....77 Elmview Ct., Saginaw
Siler, Mrs. Delbert.....47 Ardmore Pl., Saginaw
Skrowronski, Mrs. Casimer A.....1401 E. Genessee Ave., Saginaw
Slack, Mrs. Walter K.....625 S. Jefferson, Saginaw
Slade, Mrs. Homer G.....1667 S. Washington St., Saginaw
Stahley, Mrs. Edward H.....1900 Coolidge, Saginaw
Stander, Mrs. A. Carl.....1411 Court St., Saginaw
Stewart, Mrs. George W.....4343 State St., Saginaw
Sulfridge, Mrs. Hugh L...4505 North River Rd., Freeland
Thompson, Mrs. Arthur B.....2144 Ottawa, Saginaw
Tiedke, Mrs. Gunther E.....2339 Delaware Dr., Saginaw
Toshach, Mrs. Clarence E.....3655 Schust Rd., Saginaw
Vitu, Mrs. Robert L.....4115 Vera St., Saginaw
Volk, Mrs. Vladimir K.....3340 Hospital Rd., Saginaw
Webb, Mrs. Walter L.....3431 Rust, Saginaw
Weiss, Mrs. Arno W.....4945 Dundale Ct., Saginaw
Westlund, Mrs. Norman.....131 S. Charles, Saginaw
Wright, Mrs. Edwin M.....128 Larch, Saginaw
Yntema, Mrs. Stuart.....3 E. Hannum, Saginaw

SAINT CLAIR COUNTY

Bailey, Mrs. Robert.....4589 Lakeshore Rd., Port Huron
Banting, Mrs. Kenneth....3540 Gratiot Ave., Port Huron
Barss, Mrs. Joseph.....2815 Tenth Ave., Port Huron
Battley, Mrs. John.....2038 Military St., Port Huron
Beck, Mrs. Frank.....2906 Military St., Port Huron
Beer, Mrs. Joseph.....711 N. Riverside, St. Clair
Bennett, Mrs. Wm.....Yale
Borden, Mrs. Charles....4520 Lakeshore Rd., Port Huron
Bottomley, Mrs. Thomas.....4996 Lakeshore Rd., Port Huron
Boughner, Mrs. Walter.....325 Pleasant St., Algonac
Bowden, Mrs. Wm.....130 Washington St., Marine City
Bridge, Mrs. Ezra V.....416 Edison Blvd., Port Huron
Cantwell, Mrs. John D., Jr.,.....3145 Conger St., Port Huron
Cleland, Mrs. Wm.....1320 Court St., Port Huron
Cliffird, Mrs. Robert.....910 N. Riverside, St. Clair
Clyne, Mrs. Benjamin.....Yale
Coury, Mrs. John, Jr.....4234 Gratiot Ave., Port Huron
Davison, Mrs. Wm.....2920 Military St., Port Huron
Dinnen, Mrs. Wm.....3202 Riverside Dr., Port Huron
Douvas, Mrs. Nicholas.....4200 Gratiot Ave., Port Huron
Franke, Mrs. Armin.....4021 N. River Rd., Port Huron
Gerrits, Mrs. James.....1053 N. Riverside, St. Clair
Gholz, Mrs. Anthony.....1725 Court St., Port Huron
Gilmore, Mrs. John R.....4830 Lakeshore Rd., Port Huron
Hazeldine, Mrs. Herbert J.....4406 Gratiot Ave., Port Huron
Holcomb, Mrs. Russell.....141 S. Main St., Marine City
Hoyt, Mrs. Charles.....2548 Military St., Port Huron
Kirban, Mrs. Harry.....6040 Lakeshore Rd., Port Huron
Koch, Mrs. Donald.....4802 Lakeshore Rd., Port Huron
Lauridsen, Mrs. James.....3441 Conger St., Port Huron
Licker, Mrs. Reuben.....215 Gratiot Blvd., Marysville
Ludwig, Mrs. Claud.....3550 Stone St., Port Huron
Ludwig, Mrs. Frederick....2864 Military St., Port Huron
Lugg, Mrs. Robert.....3023 Gratiot Ave., Port Huron
Meredith, Mrs. Evert.....4380 Gratiot Ave., Port Huron
Mohoney, Mrs. Glenn.....4458 Gratiot Ave., Port Huron
Morris, Mrs. Alvin.....816 Sanborn St., Port Huron
Novak, Mrs. Walter.....3150 Waldheim Dr., Port Huron
Patterson, Mrs. Dorsey.....622 Huron Ave., Port Huron
Pollock, Mrs. Donald....5014 Lakeshore Rd., Port Huron
Raftery, Mrs. Michael.....4284 Gratiot Ave., Port Huron
Rowe, Mrs. Robert.....3360 W. Water St., Port Huron
Sands, Mrs. George.....3179 Armour St., Port Huron
Schaefer, Mrs. Waldo.....4178 Gratiot Ave., Port Huron
Selby, Mrs. Clarence.....1916 Military St., Port Huron
Serniac, Mrs. John.....140 S. Main St., Yale
Sitea, Mrs. Edgar C.....2704 Military St., Port Huron
Tisdale, Mrs. James.....2557 Military St., Port Huron
Tomsu, Mrs. Glenn.....3180 Gratiot Ave., Port Huron
Townley, Mrs. Charles.....2815 Military St., Port Huron
Ulmer, Mrs. Arthur.....4318 Gratiot Ave., Port Huron
VanRhee, Mrs. George.....3137 Conger St., Port Huron
Walker, Mrs. Sidney....5174 Lakeshore Rd., Port Huron
Wass, Mrs. Henry.....923 N. Riverside, St. Clair
Yost, Mrs. Kenneth.....3130 Riverside Dr., Port Huron

SAINT JOSEPH COUNTY

Berg, Mrs. Lawrence A.....East South, Sturgis
Bradley, Mrs. Donald E.....428 Burr Oak Rd., Colon
Braham, Mrs. Wilbur G.....105 N. Lakeview, Sturgis
Brothers, Mrs. Paul.....611 Virginia, Sturgis
Brunson, Mrs. Allen E.....Mortimer St., Sturgis
Evans, Mrs. Robert H.....105 S. Lakeview, Sturgis
Fiegel, Mrs. S. Albert.....500 Michigan, Sturgis
Fortner, Mrs. Roscoe J.....Rte #1, Constantine

Jacobowitz, Mrs. John M.....222 West St., Three Rivers
Lepard, Mrs. Olin.....606 E. Chicago Rd., Sturgis
O'Dell, Mrs. Charles W.....E. Hoffman, Three Rivers
O'Dell, Mrs. John H.....721 Elm St., Three Rivers
Penzotti, Mrs. Stanley C.....402 Constantine, Three Rivers
Porter, Mrs. Clark G.....196 E. Michigan, Three Rivers
Schimnoski, Mrs. Donald.....Rte. #1, Three Rivers
Shaw, Mrs. George D.....Rte. #2, Three Rivers
Sheldon, Mrs. John P.....610 Cherry St., Sturgis
Smith, Mrs. Robert.....160 Palmer Ave., Colon
Storer, Mrs. Wm. R.....1004 Oakwood Dr., Sturgis
Weisheit, Mrs. Heinz R.....200 Michigan, Sturgis
Zimont, Mrs. Charles R.....465 Clinton, Constantine
Zimont, Mrs. Ray D...435 White Pigeon Rd., Constantine

SANILAC COUNTY

Blanchard, Mrs. Ernest W.....Deckerville
Cripps, Mrs. James R.....Marlette
Gift, Mrs. Weldon A.....Marlette
Hart, Mrs. Robert.....Croswell
Jayson, Mrs. Michael.....Marlette
McCrea, Mrs. John W.....Marlette
McGunegle, Mrs. Keate.....Sandusky
Muir, Mrs. Neal.....Croswell
Tweedie, Mrs. Evans G.....Sandusky
Tweedie, Mrs. S. Martin.....Sandusky
Webster, Mrs. John C.....Marlette
Winfield, Mrs. Raymond.....Marlette

SHIAWASSEE COUNTY

Arnold, Mrs. Alfred L.....Ovid
Austin, Mrs. Eugene S.....1260 Ada St., Owosso
Bach, Mrs. Norman F.....1201 N. Washington St., Owosso
Brown, Mrs. Richard C.....658 First St., Owosso
Brown, Mrs. Richard J.....915 W. King St., Owosso
Chipman, Mrs. Elwood.....502 W. Williams St., Owosso
Ford, Mrs. Wm. J. A.....1310 Shady Lane Dr., Owosso
Graves, Mrs. James H.....150 S. Norton St., Corunna
Harroun, Mrs. Robert.....205 W. Oliver St., Owosso
Lutton, Mrs. Robert.....1423 Olmstead St., Owosso
Manion, Mrs. John J.....205 N. Cedar, Owosso
Merz, Mrs. Walter L.....1409 N. Water St., Rte. #3, Owosso
Moore, Mrs. Phillip J.....Riverbend Dr., Owosso
Phillips, Mrs. Roland.....1208 N. Dewey St., Owosso
Prochert, Mrs. Roland C.....1254 N. Shiawassee St., Owosso
Richards, Mrs. Chester.....Durand
Sahlmark, Mrs. Joseph F.....1234 Ada St., Owosso
Sauer, Mrs. Peter.....717 N. Water St., Owosso
Slagh, Mrs. Earl.....Elsie
Weinkauf, Mrs. Wm. F.....415 Mack St., Corunna
Weston, Mrs. Claud L...1226 N. Washington St., Owosso

TUSCOLA COUNTY

Ballard, Mrs. James.....Cass City
Dickerson, Mrs. Willard W.....Caro State Hosp., Caro
Donahue, Mrs. H. Theron.....Cass City
Flett, Mrs. Richard.....Millington
Gilbert, Mrs. Donald E.....45 W. Turner, Mayville
Gugino, Mrs. Frank.....9954 North St., Reese
Howlett, Mrs. Robert R.....624 West St., Caro
Nigg, Mrs. Herbert L.....308 S. State St., Caro
Miles, Mrs. Edward J.....215 W. Bush St., Caro
Savage, Mrs. Lloyd L.....521 W. Burnside, Caro
Swanson, Mrs. Ewald C.....Vassar

VAN BUREN COUNTY

Boothby, Mrs. Carl F.....Hartford
Boothby, Mrs. Fred M.....Box 218, Lawrence
Buckborough, Mrs. M. W.....Rte. #1, South Haven
Cooper, Mrs. Joseph E.....210 Lincoln Ave., Bangor
Copeland, Mrs. Evan.....Decatur
Diephuis, Mrs. Bert.....42 Cass St., South Haven
Dillon, Mrs. T. J.....Paw Paw
Gano, Mrs. Avison.....38 E. Monroe St., Bangor
Holm, Mrs. Leo H.....Box 424, Gobles
Itzen, Mrs. J. F.....311 Center St., South Haven
Johnson, Mrs. Harold.....Paw Paw
Kleber, Mrs. John A.....311 Center St., South Haven
Loomis, Mrs. F. J.....Box 106, Paw Paw
Millard, Mrs. David J.....315 Pine St., Paw Paw
Parks, Mrs. Arthur.....Lawton
Stagg, Mrs. Adelbert L.....9 N. Maple St., Hartford
Steele, Mrs. Arthur.....725 N. Kalamazoo, Paw Paw
TenHouten, Mrs. Charles....215 N. Kalamazoo, Paw Paw
Urist, Mrs. Martin.....Rte. #1, South Haven
Young, Mrs. Wm.....Lawton

WASHTENAW COUNTY

Alford, Mrs. Barry H.....14001 Beck Rd., Plymouth
Allen, Mrs. Arthur W.....5 Harvard Pl., Ann Arbor
Bailey, Mrs. Robert W.....1615 E. Stadium Blvd., Ann Arbor
Banghart, Mrs. Norman L...1250 Ferdon Rd., Ann Arbor
Barlow, Mrs. R. Craig.....1305 Arbor View Blvd., Ann Arbor
Barr, Mrs. Albert S.....1312 Brooklyn Ave., Ann Arbor
Barss, Mrs. Wm. A.....1216 Westmoorland, Ypsilanti
Bassow, Mrs. Paul H...2220 Washtenaw Ave., Ann Arbor
Bauer, Mrs. Gerhard H.....1612 Granger, Ann Arbor
Beckett, Mrs. Morley B.....912 Honey Creek Dr., Ann Arbor
Behrman, Mrs. Samuel J.....2309 Yost Blvd., Ann Arbor
Beierwaltes, Mrs. Wm. H.....1885 Fuller Rd., Ann Arbor
Belote, Mrs. G. H.....1710 Morton Ave., Ann Arbor
Bender, Mrs. Leonard F.....480 Hungtington Dr., Ann Arbor
Bethell, Mrs. Frank H.....409 Lenawee Dr., Ann Arbor
Bicknell, Mrs. John N.....1381 Jeffrey St., Ypsilanti
Bird, Mrs. H. Waldo.....325 Barton Dr., Ann Arbor
Bolt, Mrs. Robert J.....1223 Pomona, Ann Arbor

Bosch, Mrs. Jan K.....Thorn Apple Lane, Northville
Bostion, Mrs. David W.....1717 Chandler, Ann Arbor
Botah, Mrs. Edmund S.....1055 Chestnut Rd., Ann Arbor
Brewer, Mrs. Wilson K.....4255 Washtenaw Rd., Ypsilanti
Brown, Mrs. Wm. E., III..1517 Granger Ave., Ann Arbor
Butler, Mrs. Gerald E.....1120 Saunders Crescent, Ann Arbor
Campbell, Mrs. Darrell A...617 Stratford Dr., Ann Arbor
Carron, Mrs. Dean P.....1707 Harding Rd., Ann Arbor
Child, Mrs. Charles G.....3202 N. Maple Rd., Ann Arbor
Clyde, Mrs. Ensign.....1246 Sheridan, Plymouth
Coller, Mrs. Frederick A.....2105 Wallingford Rd., Ann Arbor
Crook, Mrs. Clarence E.....2112 Wallingford Rd., Ann Arbor
Cummings, Mrs. Howard H.....1527 Packard St., Ann Arbor
Curtis, Mrs. Arthur C...2905 Brockman Blvd., Ann Arbor
Davey, Mrs. Winthrop N.....2114 Victoria Circle, Ann Arbor
DeJong, Mrs. Russell N.....1526 Harding Rd., Ann Arbor
DeTar, Mrs. John.....55 W. Main St., Milan
DeWeese, Mrs. Marion S.....20 Heatheridge, Ann Arbor
Dillman, Mrs. Richard S.....529 Fifth St., Ann Arbor
Dingman, Mrs. Reed O.....1407 Lincoln, Ann Arbor
Dolfin, Mrs. Wilbur E.....2210 Melrose Ave., Ann Arbor
Donaldson, Mrs. Samuel W.....2128 Melrose Ave., Ann Arbor
Doorn, Mrs. Henry A.....1110 Miner, Ann Arbor
Dukay, Mrs. Alexander.....Box A, Ypsilanti State Hosp., Ypsilanti
Eberhard, Mrs. Theodore P.....2210 Hill St., Ann Arbor
Edmunds, Mrs. Wm. F.....1303 Westmoorland, Ypsilanti
Engelke, Mrs. Otto K.....810 Hutchins, Ann Arbor
English, Mrs. David.....1699 Broadway, Ann Arbor
Evans, Mrs. Tommy N.....1001 Belmont, Ann Arbor
Falls, Mrs. Harold F.....1525 Harding Rd., Ann Arbor
Feller, Mrs. Irving.....2565 Carmel St., Ann Arbor
Fink, Mrs. George C.....411 Linda Vista, Ann Arbor
Fisher, Mrs. Joseph V.....415 Washington, Chelsea
Fox, Mrs. Winslow G.....307 Linda Vista, Ann Arbor
Fralich, Mrs. F. Bruce.....2101 Belmont Rd., Ann Arbor
Fransway, Mrs. Robert L.....244 Mason St., Ann Arbor
French, Mrs. A. James.....409 Mark Hannah Pl., Ann Arbor
Frost, Mrs. Lyle W.....309 N. Washington, Ypsilanti
Frye, Mrs. Carl H.....2025 Hill St., Ann Arbor
Furstenberg, Mrs. Albert C.....2240 Belmont Rd., Ann Arbor
Ganzhorn, Mrs. Edwin C.....2705 Whitmore Lake Rd., Ann Arbor
Geist, Mrs. James H.....1604 Dexter Rd., Ann Arbor
Getting, Mrs. Vlado.....1200 Arlington Blvd., Ann Arbor
Goldsmith, Mrs. Robert I...1211 Prospect St., Ann Arbor
Golloway, Mrs. Glenn G.....Box A, Ypsilanti State Hosp., Ypsilanti
Gotz, Mrs. Alexander.....709 Sunset Rd., Ann Arbor
Gould, Mrs. Stuart M.....2030 Hill St., Ann Arbor
Grabb, Mrs. Wm. C.....1310 Pomona Rd., Ann Arbor
Grawn, Mrs. Frank A.....604 Pearl St., Ypsilanti
Hagerman, Mrs. George W...2124 Tuomy Rd., Ann Arbor
Haight, Mrs. Cameron.....2112 Vinewood, Ann Arbor
Hammond, Mrs. Walter W., Jr.....1312 Maple St., Plymouth
Harrell, Mrs. Everett R.....2112 Copley, Ann Arbor
Harris, Mrs. Bradley M.....206 S. Washington, Ypsilanti
Harris, Mrs. Scott T.....1144 Roosevelt Blvd., Ypsilanti
Henderson, Mrs. John W.....2113 Devonshire Rd., Ann Arbor
Hildebrandt, Mrs. H. Mark.....1223 Morningside Dr., Ann Arbor
Himler, Mrs. Leonard E.....1225 Fair Oaks Pky., Ann Arbor
Hodges, Mrs. Fred J.....5 Highland Lane, Ann Arbor
House, Mrs. Frederic B.....1240 Crosby Crescent, Ann Arbor
Howard, Mrs. W. Leonard....47787 W. Eight Mile Rd., Northville
Johnston, Mrs. Franklin D.....1761 Westridge, Ann Arbor
Kabza, Mrs. Theodore G.....2222 Parkwood Ave., Ann Arbor
Kemper, Mrs. John W.....1312 Brooklyn, Ann Arbor
Kern, Mrs. Wheeler H.....24801 Fairmount Dr., Dearborn
Kittleson, Mrs. Arthur C.....1717 Pontiac, Ann Arbor
Kivi, Mrs. Louis P.....1619 Kirtland Dr., Ann Arbor
Knox, Mrs. C. Frank, Jr.....1922 Northwood Apts. N., Campus Ann Arbor
Korst, Mrs. Donald R.....1214 Pomona St., Ann Arbor
LaFever, Mrs. Sidney L.....2131 Melrose Ave., Ann Arbor
LaVielle, Mrs. Carroll J.....1500 Kirtland Dr., Ann Arbor
Law, Mrs. John L.....1706 Cambridge Rd., Ann Arbor
Lovell, Mrs. Robert G.....725 Sunset Rd., Ann Arbor
Lowry, Mrs. Claude M.....1707 Shadford Rd., Ann Arbor
Mackenzie, Mrs. James W.....1624 Winstead, Ann Arbor
Magee, Mrs. Kenneth R.....1109 Heatherway, Ann Arbor
Magielski, Mrs. John E.....2355 Londonderry Rd., Ann Arbor
Marshall, Mrs. Mark.....918 Forest Ave., Ann Arbor
Martin, Mrs. Donald W.....212 N. Mansfield, Ypsilanti
Maxwell, Mrs. James H.....2139 Melrose, Ann Arbor
McWilliams, Mrs. John R.....2402 Brockman, Ann Arbor
Milford, Mrs. Albert F.....1203 Whittier Rd., Ypsilanti
Moore, Mrs. Kenneth.....Box A, Ypsilanti State Hosp., Ypsilanti
Morley, Mrs. George W.....25044 Dorchester, Ann Arbor
Morris, Mrs. Joe D.....1801 Weldon Blvd., Ann Arbor
Muehlig, Mrs. George F.....1520 White St., Ann Arbor
Newton, Mrs. Charles W.....2120 Wallingford Rd., Ann Arbor
Obenauf, Mrs. Walter H.....Box A, Ypsilanti State Hosp., Ypsilanti
O'Connor, Mrs. Gerald A.....1230 Creal Crescent, Ann Arbor
O'Sullivan, Mrs. John A.....3436 Edgewood, Ann Arbor
Papo, Mrs. Michael.....19377 Sibley Rd., Chelsea
Payne, Mrs. Beverly C...245 Orchard Hill Dr., Ann Arbor
Petrohelos, Mrs. Manos A.....2564 Hawthorne Rd., Ann Arbor
Place, Mrs. Edwin H.....2616 Hawthorne Rd., Ann Arbor
Pollard, Mrs. H. Marvin.....2012 Vinewood Ave., Ann Arbor
Rae, Mrs. James W.....2401 Geddes Ave., Ann Arbor
Raphael, Mrs. Theophile....430 Hillssur Rd., Ann Arbor
Ratliff, Mrs. Rigdon K.....231 Corrie Rd., Ann Arbor
Rehner, Mrs. Robert C.....1506 Golden Ave., Ann Arbor
Reichert, Mrs. Rudolph E., Jr...1046 Baldwin, Ann Arbor
Rekshan, Mrs. Wm. R.....47558 N. Shore Dr., Belleville
Riggs, Mrs. Harold W...2119 Devonshire Rd., Ann Arbor
Ritter, Mrs. Frank N.....930 Duncan St., Ann Arbor
Robinson, Mrs. Wm. D.....1616 E. Stadium Blvd., Ann Arbor
Ross, Mrs. C. Howard....180 Underdown Rd., Ann Arbor
Saunders, Mrs. Allen.....1008 Pauline Blvd., Ann Arbor
Sayre, Mrs. George S.....1208 Whittier Rd., Ypsilanti
Schneider, Mrs. Richard C.....1101 Pauline Blvd., Ann Arbor
Schoch, Mrs. Henry K.....670 Hampstead Lane., Ann Arbor
Schumacher, Mrs. Wm. E.....1475 Stein Rd., Ann Arbor
Scovill, Mrs. Henry A.....1313 W. Cross St., Ypsilanti
Seevers, Mrs. Maurice H.....620 Oxford Rd., Ann Arbor
Selzer, Mrs. Melvin L.....1856 Stadium Pl., Ann Arbor
Sheldon, Mrs. John M.....2121 Tuomy Rd., Ann Arbor
Sigler, Mrs. Louis E., Jr.....1443 Covington Dr., Ann Arbor
Sink, Mrs. Emory W.....1546 Packard St., Ann Arbor
Smillie, Mrs. John W.....2615 Overridge Dr., Ann Arbor
Smith, Mrs. Russell F.....12000 E. Shore Dr., Whitmore Lake
Spears, Mrs. Clarence W.....1307 Pearl St., Ypsilanti
Struthers, Mrs. James N. P...Box A, Ypsilanti State Hosp., Ypsilanti
Sturgis, Mrs. Cyrus C.....1316 Beechwood Dr., Ann Arbor
Sweet, Mrs. Robert.....1304 Irquois, Ann Arbor
Taylor, Mrs. Wm. B.....2520 Devonshire Rd., Ann Arbor
Thieme, Mrs. E. Thurston..3 Geddes Heights, Ann Arbor

Tien, Mrs. Chen....Box A, Ypsilanti State Hosp., Ypsilanti
Towsley, Mrs. Harry A.....1000 Berkshire Rd., Ann Arbor
Tupper, Mrs. C. John.....2 Medford Ct., Ann Arbor
Waggoner, Mrs. Raymond W.....3333 Geddes Rd., Ann Arbor
Wallner, Mrs. Julius M.....401 Lenawee Dr., Ann Arbor
Warren, Mrs. Leon H.....826 S. Main St., Ann Arbor
Weisman, Mrs. Raoul.....1408 Wells, Ann Arbor
Westover, Mrs. Charles J...1405 W. Maple St., Plymouth
Wicht, Mrs. Paul J.....1385 W. Michigan Ave., Ypsilanti
Williams, Mrs. Howard R...609 Stratford Rd., Ann Arbor
Williamson, Mrs. Frederick B.....922 Pleasant Dr., Ypsilanti
Willis, Mrs. Park W.....1016 Martin Pl., Ann Arbor
Wilson, Mrs. James L.....1801 Hermitage Rd., Ann Arbor
Winkler, Mrs. James M.....2015 Crestland Dr., Ann Arbor
Woods, Mrs. James J.....2022 Washtenaw Rd., Ypsilanti
Wolfman, Mrs. Earl F., Jr.....827 Bruce St., Ann Arbor
Wylie, Mrs. Wm. C.....3219 Broad St., Dexter
Zerbi, Mrs. Victor M.....315 N. Adams St., 270 Clubview Dr., Ypsilanti

WAYNE COUNTY

Aben, Mrs. Gerald.....285 Biddle, Wyandotte
Akroyd, Mrs. Cecil.....1111 Pembroke Road, Bloomfield Hills
Albrecht, Mrs. Albert J.....17167 Fairfield, Detroit
Albrecht, Mrs. Herman F.....877 Chicago Blvd., Detroit
Alexander, Mrs. Eugene J.....24140 Wilson, Dearborn
Amos, Mrs. T. Grover.....2708 Woodstock Drive, Detroit
Andries, Mrs. George H.....17365 Muirland 21, Detroit
Arehart, Mrs. Burke W.....65 Merriweather Road, Grosse Pointe
Arminski, Mrs. Thomas C.....16874 Muirland, Detroit
Ashe, Mrs. Stilson R.....1911 Hawthorne Road, Dearborn
Ashley, Mrs. L. Byron,.....18050 Fairway Drive, Detroit
August, Mrs. Harry E.....26081 Hendrie Blvd., Huntington Woods
Axelson, Mrs. A. U.....15840 Windmill Pointe Dr., Grosse Pointe
Babcock, Mrs. Warren W.....18254 Oak Drive, Detroit
Bagley, Mrs. Harry E.....7541 Oakman Blvd., Dearborn
Bailey, Mrs. C. C.....32266 Verona Circle, Birmingham
Bailey, Mrs. Louis J.....620 Vinewood, Birmingham
Ballard, Mrs. Donald.....21181 Outer Drive, Dearborn
Barber, Mrs. Ray.....990 S. Harvey, Plymouth
Barnett, Mrs. Louis L.....8 Millington Road, Pleasant Ridge
Barone, Mrs. Charles J.....51 Eason Avenue, Highland Park
Barone, Mrs. C. Gerald.....1851 Crosswick, Birmingham
Barrett, Mrs. C. Dale.....12672 E. Outer Drive, Detroit
Barrett, Mrs. Wyman D.....442 Neff Road, Grosse Pointe
Barron, Mrs. James.....2535 Amberly Road, Birmingham
Bauer, Mrs. Lester E.....4 Woodside Park, Pleasant Ridge
Baumgarten, Mrs. E. C.....1062 Lochmoor, Grosse Pointe
Beach, Mrs. Watson....281 Kenwood Court, Grosse Pointe
Beamer, Mrs. George D.....15834 Longmeadow, Dearborn
Bedwell, Mrs. William L.....183 Ridgemont Road, Grosse Pointe
Beeuwkes, Mrs. Lambertus E.....13014 Mackenzie, Detroit
Behan, Mrs. Robert C.....1353 Balfour, Grosse Pointe
Bell, Mrs. J. Kenner.....49 Rhode Island, Highland Park
Bennett, Mrs. Germany.....311 Arden Park, Detroit 2
Berlien, Mrs. Ivan C.....2906 E. Jefferson, Detroit
Bethea, Mrs. Hardee..279 Kenwood Court, Grosse Pointe
Bielawske, Mrs. John G.....8124 E. Morrow Circle, Detroit 4
Bihl, Mrs. John H.....41001 W. Seven Mile Road, Northville
Biluk, Mrs. Frank J.....9134 St. Cyril, Detroit
Birch, Mrs. John R.....161 Vendome, Grosse Pointe
Birkhill, Mrs. Frederick Ross....31 Shady Hollow Drive, Dearborn
Bittrich, Mrs. N. M.....7474 Lasalle Blvd., Detroit
Blain, Mrs. Alexander.....1028 Berkshire Road, Grosse Pointe
Blair, Mrs. William.....3541 Harvard, Detroit
Block, Mrs. Melvin A.....795 Lakeland, Grosse Pointe
Blodgett, Mrs. William H.....535 Overhill Road, Birmingham
Bogue, Mrs. Robert E.....19161 Lancashire, Detroit
Bolstad, Mrs. Donald.....225 S. Silvery Lane, Dearborn
Bolter, Mrs. Sidney.....6760 Woodbank, Birmingham
Bowers, Mrs. Leo J.....47 Cambridge, Pleasant Ridge
Bracken, Mrs. Andrew H.....7540 Oakman, Dearborn
Braley, Mrs. William N.....19300 Riverside Drive, Birmingham
Briggs, Mrs. William.....4121 Harvard Road, Detroit
Brines, Mrs. Osborne A.....1415 Parker, Apt. 206, Detroit
Bringard, Mrs. Elmer.....18110 Fairfield, Detroit
Bristol, Mrs. William R.....6142 Bishop, Detroit
Broadman, Mrs. Sylvan....25705 Middlebelt, Farmington
Bronson, Mrs. William W.....845 Lone Pine Road, Bloomfield Hills
Brooks, Mrs. Clark D.....1601 Quarton Road, Birmingham
Brosius, Mrs. William L.....16150 Sorrento, Detroit
Brown, Mrs. Andrew G.....13991 Asbury Park. Detroit
Brown, Mrs. Audrey O.....46 Oakdale Blvd., Pleasant Ridge
Brown, Mrs. Gordon T.....8355 E. Outer Drive, Detroit
Brush, Mrs. Brock E.....22313 Cherry Hill, Dearborn
Bryan, Mrs. John B.....30540 Rick Creek Drive, Birmingham
Buerki, Mrs. Robin C.....201 Lake Shore, Grosse Pointe
Buesser, Mrs. Frederick G.....8106 E. Jefferson, Detroit
Burke, Mrs. Ralph Martin.....580 University Place Grosse Pointe
Burnham, Mrs. David C.....3900 Oakhills Drive, Birmingham
Burns, Mrs. Robert T.....4610 Somerset, Detroit
Burr, Mrs. George.....2016 W. Boston Blvd., Detroit
Burroughs, Mrs. Roswell G.....31624 Auburn Drive, Birmingham
Butler, Mrs. Joseph P.....1726 W. Chicago, Detroit
Caldwell, Mrs. John R.....4850 Bryn Mawr Road, Birmingham
Campbell, Mrs. Robert E.....943 Fisher Road, Grosse Pointe
Candler, Mrs. Clarence L.....1960 Faircourt, Grosse Pointe
Caputo, Mrs. Joseph M.....22575 Nona, Dearborn
Carbone, Mrs. Louis.....487 Lakeland, Grosse Pointe
Carlisle, Mrs. Joseph.....656 W. Woodland, Ferndale
Carnes, Mrs. Harry E.....652 Lincoln Road, Grosse Pointe
Carrick, Mrs. Lee.....506 Lakeshore Lane, Grosse Pointe
Carter, Mrs. John M.....18900 Fairway Drive, Detroit
Carter, Mrs. Leland F.....750 Middlesex Road, Grosse Pointe
Caughey, Mrs. Edgar.....1040 S. Oxford Road, Grosse Pointe
Caumartin, Mrs. Fred.....17184 Wildemere, Detroit
Cetnar, Mrs. Eugene J.....4322 Bishop Road, Detroit
Chall, Mrs. Henry G.....2941 W. McNichols, Detroit
Chapin, Mrs. Sidney E.....425 Golf Crest Drive, Dearborn
Chipman, Mrs. Williard A...14613 Rutland Road, Detroit
Christensen, Mrs. C. A.....7876 Hartwell Ave., Dearborn
Christopher, Mrs. James G...9515 W. Outer Dr., Detroit
Clark, Mrs. Arthur M.....318 Beechmont, Dearborn
Clarke, Mrs. Robert B.....385 University Place Grosse Pointe
Clifford, Mrs. T. Percy.....4355 Glendale Ave, Detroit
Cochrane, Mrs. Edgar G.....13974 Archdale Road, Detroit
Cole, Mrs. James E.....15322 Shahelin, Detroit
Colville, Mrs. James.....1836 Humphrey, Birmingham
Colvin, Mrs. Leslie.....18470 Scarsdale, Detroit

Colyer, Mrs. Raymond....56 Rhode Island, Highland Park
Comly, Mrs. Hunter.....958 Lakepointe, Grosse Pointe
Connelly, Mrs. Richard C.....1360 Three Mile Drive, Grosse Pointe
Connolly, Mrs. Paul J.....16778 Westmoreland, Detroit
Cook, Mrs. James C.....5 Fairmont Court, Dearborn
Cooksey, Mrs. Warren B.....19510 Stratford Drive, Detroit
Cooper, Mrs. Benjamin F...1124 Berkshire, Grosse Pointe
Cooper, Mrs. Edmond L.....914 Shirley, Birmingham
Cooper, Mrs. Ralph.....15610 Linnhurst, Detroit
Cooper, Mrs. Richard F.....23130 Wilson, Dearborn
Corbett, Mrs. John J.....57 Merriweather Road, Grosse Pointe
Costello, Mrs. Russell T.....2850 Pine Lake Road, R.R.2, Orchard Lake
Courville, Mrs. Charles J.....19719 Whitcomb, Detroit
Coyle, Mrs. James.....46 Beacon Hill, Grosse Pointe
Croll, Mrs. Maurice.....18003 Muirland, Detroit
Crook, Mrs. Charles L.....60 Colorado, Highland Park
Croushore, Mrs. James E.....1185 Westward, Birmingham
Cushing, Mrs. Russell G.....643 Lochmoor, Grosse Pointe
Cusick, Mrs. Paul L.....17575 Oak Drive, Detroit

Dale, Mrs. Edward C.....380 Fisher, Grosse Pointe
Dale, Mrs. Mark.....4595 Pickering, Birmingham
Daly, Mrs. Eugene.....19755 Evergreen, Detroit
Danforth, Mrs. Robert.....941 Oxford, Grosse Pointe
Darling, Mrs. Charles E.....29 Yarmouth, Birmingham
Darling, Mrs. Milton A.....8100 LaSalle Blvd., Detroit
Davies, Mrs. Windsor S.....1013 Audubon, Grosse Pointe
DeFever, Mrs. Cyril R.....1113 Kensington Road, Grosse Pointe
DeNike, Mrs. A. James.....2906 E. Jefferson, Detroit
Deresz, Mrs. Alphonse R.....4204 E. Outer Drive, Detroit
DeSpelder, Mrs. R. E.....1452 Yorkshire, Grosse Pointe
Devine, Mrs. Herbert W.....1315 Harvard, Grosse Pointe
Diekman, Mrs. Fred C.....19701 Burt Road, Detroit
Dieterich, Mrs. Gordon.....19600 Dale, Detroit
Dill, Mrs. J. Lewis.....18615 Birchcrest, Detroit
Dimond, Mrs. George E.....6853 Orchard, Dearborn
Ditzler, Mrs. John W.....581 Rivard Blvd., Grosse Pointe
Doering, Mrs. Wendell R.....27489 Lathrup, Lathrup Village
Dolega, Mrs. Stanley F.....366 Moross, Grosse Pointe
Dolgoff, Mrs. Sidney.....9855 Melbourne, Allen Park
Donald, Mrs. Douglas.....8120 E. Jefferson, Detroit 14
Doran, Mrs. John.....26060 Hope, Detroit
Dorsey, Mrs. John M.....65 Moss, Highland Park
Doub, Mrs. Howard P.....18234 Wildemere, Detroit
Dougherty, Mrs. Edward A.....20014 Kentfield, Detroit
Downer, Mrs. Ira G.....789 Trombly Road, Grosse Pointe 30
Draves, Mrs. Edward F.....14541 Grandmont, Detroit
Drazek, Mrs. Joseph.....19633 Riverview, Detroit
Dubin, Mrs. Joseph J.....1420 Strathcona, Detroit
DuBois, Mrs. Paul W.....630 Merrick Ave., Detroit
Dudek, Mrs. John J.....17166 Parkside, Detroit
Dumke, Mrs. Paul F...544 Middlesex Blvd., Grosse Pointe
Dundas, Mrs. Edward.....1235 Beechmont, Dearborn
Dunlep, Mrs. Henry A.....505 Lakepointe, Grosse Pointe
Dunn, Mrs. Cornelius E.....3496 Burns, Detroit
Dupler, Mrs. Gerald.....1126 Mayburn, Dearborn
Durham, Mrs. Everett W.....1730 Hawthorne Drive, Dearborn
Dutcher, Mrs. Dwight.....711 S. Oxford, Grosse Pointe
Duwe, Mrs. Frank A.....17580 Avilla, Lathrup Village
Dyer, Mrs. H. Lorne.....25139 Myler Avenue, Taylor Center
Dziuba, Mrs. John F.....622 Hamilton, Birmingham

Eldredge, Mrs. Edward F.....310 Moross, Grosse Pointe
Elvidge, Mrs. R. J.....18031 Hamilton, Detroit
Ensign, Mrs. Dwight C.....Franklin
Eschbach, Mrs. Joseph W.....410 River Lane, Dearborn
Evans, Mrs. Gomer.....1060 Berkshire, Grosse Pointe
Evans, Mrs. Joseph M.....12862 E. Outer Drive, Detroit
Ewing, Mrs. C. H.....526 University Place, Grosse Pointe
Eyler, Mrs. William R.....18347 Bedford Road, Birmingham

Fallis, Mrs. L. S.....2474 Chicago Blvd., Detroit
Farnam, Mrs. Larry M., Jr...501 Lakeland, Grosse Pointe
Fea, Mrs. John.....501 Lakeland, Grosse Pointe
Felcyn, Mrs. W. G.....2091 W. Grand Blvd., Detroit
Fellers, Mrs. Ray L.....4984 Ridgewood, Detroit
Fenton, Mrs. Edwin.....14831 Warwick Road, Detroit
Fenton, Mrs. Russell F.....18469 Hillcrest Blvd., Birmingham
Ferris, Mrs. G. N.....16745 Oakfield, Detroit
Figiel, Mrs. Leo.....719 Berkshire, Grosse Pointe
Figiel, Mrs. Steven J.....6648 Oakman Blvd, Dearborn
Fisher, Mrs. Carrie L.....791 University Place, Grosse Pointe
Fisher, Mrs. James M.....176 Merriweather Road, Grosse Pointe
Fitzgerald, Mrs. James M.....16838 Huntington, Detroit
Flaherty, Mrs. Henry J.....27360 Rainbow Circle, Lathrup Village
Flaherty, Mrs. Norman W.....24315 Fairmount Drive, Dearborn
Flora, Mrs. William R.....589 Pemberton, Grosse Pointe
Fogt, Mrs. Robert G.....720 Hidden Lane, Grosse Pointe
Font, Mrs. Anthony J...29539 W. Six Mile Road, Livonia
Ford, Mrs. George A.....18934 Fairfield, Detroit
Fordell, Mrs. Frank.....411 Woodcrest Drive, Dearborn
Fosnaugh, Mrs. Robert P.....6214 Appoline, Dearborn
Foster, Mrs. William L.....15316 Piedmont, Detroit
Frame, Mrs. Boy.....1051 Covington, Detroit
France, Mrs. C. Jackson.....838 Berkshire, Grosse Pointe
Frederickson, Mrs. George C.....1450 Oxford Road, Grosse Pointe
Freitas, Mrs. Eugene L.....19914 Fairway, Grosse Pointe
Frey, Mrs. James L.....17144 Westmoreland, Detroit
Fryfogle, Mrs. James D.....24500 Inkster, Farmington
Fulton, Mrs. Harold, Jr.....4401 Kensington, Detroit

Gagliardi, Mrs. Raymond.....15864 Rosemont, Detroit
Gajewski, Mrs. John E.....1320 Grayton, Grosse Pointe
Ganschow, Mrs. John H.....10025 Nadine, Huntington Woods
Gardner, Mrs. Lawrence W.....18782 Glenwood, Lathrup Village
Gardner, Mrs. Max L.....1158 Yorkshire, Grosse Pointe
Gaston, Mrs. Herbert B.....7501 W. Morrow Circle, Dearborn
Gehring, Mrs. Harold W.....17607 Magnolia Parkway, Detroit
Gerisch, Mrs. Robert.....19441 Bretton Drive, Detroit
Gerondale, Mrs. E. J.....15000 Dexter Blvd., Detroit
Gillespie, Mrs. Stephen M.....1638 DaCosta, Dearborn
Gittins, Mrs. Perry.....20210 Renfrew Road, Detroit
Glowacki, Ben. F.....840 Jonathan Lane, Bloomfield Hills
Goodwin, Mrs. Warren.....19321 Graydale, Detroit
Gordon, J. Whitlock.....12700 Mendota, Detroit
Gottlieb, Mrs. Jacques S.....7111 Fairhill Road, Birmingham
Goux, Mrs. Raymond S.....17566 Muirland, Detroit
Grace, Mrs. Joseph M.....27453 Rainbow Circle, Lathrup Village
Granger, Mrs. George R.....88 Renaud Road, Grosse Pointe
Graves, Mrs. James H.....1304 Buckingham, Grosse Pointe
Gray, Mrs. Jacques P.....8900 E. Jefferson, Apt. 913, Detroit
Green, Mrs. Edward W.....30024 Champine Drive, St. Clair Shores
Green, Mrs. Nelson W.....107 Elm Park, Pleasant Ridge
Greenlee, Mrs. William T.....15239 Cedargrove, Detroit
Gregory, Mrs. Louis J.....15220 Collingham, Detroit
Greiner, Mrs. Bert.....8900 E. Jefferson, Detroit
Griffin, Mrs. Robert J.....965 W. Crescent Lane, Grosse Pointe
Grossman, Mrs. Sol C.....20015 Shrewsbury, Detroit
Guerrero, Mrs. Jose.....4285 Glendale, Detroit
Gurdjiian, Mrs. E. S.....19385 Renfrew Rd., Detroit
Guyton, Mrs. Jack S...402 University Place, Grosse Pointe

Hague, Mrs. Gilbert.....22419 St. Joan, St. Clair Shores
Haisten, Mrs. Wyatt.....269 McKinley, Detroit

Haitinger, Mrs. Kalman S.....1134 Beaconsfield, Grosse Pointe
Hall, Mrs. E. Walter.....14189 Rosemont, Detroit
Hall, Mrs. Winthrop D.....6 Cherry Hill Court, Dearborn
Hallen, Mrs. L. James.....14032 Ohio, Detroit
Hamil, Mrs. Brenton M.....12 Adams Lane, Detroit
Hamilton, Mrs. Quentin P.....16287 Mendota, Detroit
Hammer, Mrs. Roy W.....17340 Rumyon, Detroit
Hand, Mrs. Fordus.....1018 Bedford, Grosse Pointe
Hansen, Mrs. Frederick E.....120 Glynn Court, Apt. 700, Detroit
Harley, Mrs. Louis M.....17325 Fairfield, Detroit
Harm, Mrs. Winfred B.....16260 Cherrylawn, Detroit
Harris, Mrs. Harold H.....7350 Oakman, Dearborn
Hasley, Mrs. Clyde K.....2320 N. LaSalle Garden, Detroit
Hassig, Mrs. Walter W.....161 Stephens, Grosse Pointe
Hastings, Mrs. Orville J.....10427 E. Outer Drive, Detroit
Hauser, Mrs. I. Jerome....1980 Strathcona Drive, Detroit
Hauser, Mrs. John E.....688 Hamilton, Birmingham
Havers, Mrs. Howard.....271 Kenwood Court, Grosse Pointe
Hazen, Mrs. Roy S.....15371 Stout, Detroit
Heideman, Mrs. Louis E.....18010 Roselawn, Detroit
Heldt, Mrs. Richard.....24617 Rockford, Dearborn
Henderson, Mrs. Leslie T...832 N. Renaud, Grosse Pointe
Henry, Mrs. Robert C.....16127 Baylis, Detroit
Hess, Mrs. Murray W.....23860 Seneca, Oak Park
Heyner, Mrs. S. A.....3424 Oakman Blvd., Detroit
Hickey, Mrs. Joseph....24346 Fairmount Drive, Dearborn
Hicks, Mrs. Frederick G.....1000 Westwood, Birmingham
Hipps, Mrs. Chauncey.....14 Ridge Road, Pleasant Ridge
Hoagland, Mrs. Thomas V.....630 W. Hildale, Detroit
Hodges, Mrs. Frank J.....7407 Oakman Blvd., Dearborn
Hodges, Mrs. Jason....1200 S. Oxford Rd., Grosse Pointe
Hodgkinson, Mrs. C. Paul.....17546 Meadowwood, Lathrup Village
Hoffman, Mrs. Edwin S.....14877 Warwick, Detroit
Holt, Mrs. Charles.....1575 Faircourt, Grosse Pointe
Horn, Mrs. Robert C...505 Pemberton Rd., Grosse Pointe
Howard, Mrs. Austin Z.....15492 Ashton Rd., Detroit
Howell, Mrs. James T.....29707 California Dr. E., Lathrup Village
Howes, Mrs. Homer A.....9322 Artesian, Detroit
Howlett, Mrs. Howard T.....20026 Shrewsbury, Detroit
Hranchook, Mrs. Michael.....5042 Haverhill, Detroit
H'Romadko, Mrs. Louis..340 Martel Dr., Bloomfield Hills
Huber, Mrs. Philip.....1724 Bassett, Royal Oak
Hudson, Mrs. William A.....2290 Edison, Detroit
Hulick, Mrs. Archie.....15525 Amherst, Birmingham
Hume, Mrs. H. Ross....118 Meadow Lane, Grosse Pointe
Huminski, Mrs. T. S.....1232 Devonshire, Grosse Pointe
Hummel, Mrs. Arthur R.....1020 Three Mile Dr., Grosse Pointe
Hunt, Mrs. Theodore H.....10095 E. Outer Dr., Detroit
Husband, Mrs. Chas. W...19450 Argyle Crescent, Detroit
Husband, Mrs. Ray C.....530 Overhill Rd., Birmingham
Hutchins, Mrs. M. Colton.....28010 Goldengate, Lathrup Village
Iacobell, Mrs. Peter H.....870 Lakeshore Rd., Grosse Pointe
Igna, Mrs. E. J.....16924 St. Paul, Grosse Pointe
Insley, Mrs. Stanley W.....12880 Archdale, Detroit
Irvin, Mrs. Earle....1343 Buckingham Rd., Grosse Pointe
Irwin, Mrs. William A.....2130 Iroquois, Detroit
Jacobson, Mrs. Lyle F.....14123 Riverview, Detroit
Jacobus, Mrs. Wayne....21535 Kingsville, Harper Woods
Jackel, Mrs. C. N.....443 Lexington, Grosse Pointe
Jaffar, Mrs. Donald J.....630 Merrick, Detroit
Jarvis, Mrs. Harold F.....360 Moross Rd., Grosse Pointe Farms
Jeffries, Mrs. Benjamin.....1010 Harvard, Grosse Pointe
Jend, Mrs. William, Jr.....7027 Riverside Dr., Dearborn
Jennings, Mrs. Charles G.....356 Hillcrest, Grosse Pointe
Jennings, Mrs. Elmer R.....370 Moross, Grosse Pointe
Jensen, Mrs. V. W.....532 Lincoln, Grosse Pointe
John, Mrs. Hubert R...265 Merton Rd., Apt. 104, Detroit
Johnson, Mrs. David.....539 Vinewood, Birmingham
Johnson, Mrs. Ralph A.....2115 Iroquois, Detroit
Johnson, Mrs. Vincent C.....599 Lakeshore Rd., Grosse Pointe Shores
Johnston, Mrs. Thomas C.....427 McKinley Grosse Pointe Farms
Johnston, Mrs. William E...2240 W. Grand Blvd., Detroit
Joinville, Mrs. E. V...3879 Riverside Dr., Windsor, Ont.
Jones, Mrs. Roy D.....7747 Seven Mile Rd., Detroit
Joyce, Mrs. Stanley J.....2040 W. McNichols Rd., Detroit
Kamil, Mrs. Richard.....18024 Warrington, Detroit
Kauppinen, Mrs. J. A.....19246 Nadol, Detroit
Kawel, Mrs. Conrad.....7377 Charlesworth Rd., Garden City
Keane, Mrs. Wm. Edward.....1007 Harvard Rd., Grosse Pointe
Kehoe, Mrs. Henry J.....91 Renaud Rd., Grosse Pointe
Keim, Mrs. Harther L.....369 University Place, Grosse Pointe
Kelley, Mrs. Frank J.....440 Lothrop Rd., Grosse Pointe
Kennary, Mrs. James M.....2250 Iroquois, Detroit
Killins, Mrs. Charles G...845 Bedford Rd., Grosse Pointe
Knighton, Mrs. Robert S.....27486 Lathrup, Lathrup Village
Knights, Mrs. E. M., Jr.....4101 Greenbrook Lane, Flint
Koebel, Mrs. R. H.....640 Bedford, Grosse Pointe
Kokowicz, Mrs. R. J.....1151 Buckingham, Grosse Pointe
Korum, Mrs. Lyle W.....210 Lothrop Rd., Grosse Pointe Farms
Kossayda, Mrs. Adam W.....22331 Wilson, Dearborn
Krabbenhoft, Mrs. K. L.....27 Oakdale, Pleasant Ridge
Krynicki, Mrs. Francis X.....17127 Muirland, Detroit
Krystal, Mrs. Henry.....19210 Coyle, Detroit
Kuhn, Mrs. Albert.....186 W. Hildale, Detroit
Kujawski, Mrs. Walter..20897 Littlestone, Harper Woods
Kulaski, Mrs. Chester H.....7500 E. Robinwood, Detroit
LaHood, Mrs. Michael J.....17300 Cornell, Detroit
Laige, Mrs. Raymond.....1257 Audubon, Grosse Pointe
LaMarche, Mrs. Norman O.....4139 Wakefield Road, St. Johns Woods, Berkley
Lammy, Mrs. James V.....3797 Wakefield, Berkley
Lampman, Mrs. Harold H.....42 Puritan Ave., Highland Park
Lang, Mrs. Ernest F.....280 Cloverly Rd., Grosse Pointe
Lange, Mrs. Anthony H.....4502 Grayton Rd., Detroit
Laning, Mrs. George.....2025 W. Six Mile Rd., Highland Park
Lasichak, Mrs. Andrew.....8502 Sussex, Detroit
Leader, Mrs. Luther R.....394 Carnbrook Rd., Bloomfield Hills
Lechner, Mrs. Monroe.....14284 Rosemary, Detroit
Lehmann, Mrs. Robert.....268 McMillan Rd., Grosse Pointe Farms
Leibinger, Mrs. Henry R.....511 Barrington Rd., Grosse Pointe
Lepley, Mrs. Fred O.....1125 Three Mile Dr., Grosse Pointe
Leszynski, Mrs. Joseph S.....8120 E. Jefferson, Detroit
Levagood, Mrs. Floyd B.....14056 Artesian, Detroit
Lewis, Mrs. Robert.....18474 Fenton, Detroit
Lichter, Mrs. Max L.....19320 Berkley, Detroit
Liddicoat, Mrs. Arthur G.....18300 Bretton Dr., Detroit
Lightbody, Mrs. James J.....195 Piper Blvd., Detroit
Lignell, Mrs. Rudolph W.....18109 San Juan, Detroit
Lilly, Mrs. Charles J.....16649 Princeton, Detroit
Lipkin, Mrs. Ezra.....17599 Greenlawn, Detroit
Little, Mrs. James W.....3855 Shallow Brook, Bloomfield Hills
Livingood, Mrs. Clarence S.....2950 Iroquois, Detroit
Lofstrom, Mrs. James E.....265 Williams, Grosse Pointe
Longo, Mrs. Salvatore S.....918 Barrington Rd., Grosse Pointe
Loranger, Mrs. Clifford B.....888 Lake Shore Rd.,
Loucks, Mrs. R. E.....29915 13 Mile Rd., Farmington
Lovas, Mrs. William S.....10 Hampton Ct., Dearborn
Lowe, Mrs. Adolf W.....17117 Parkside, Detroit
Lowrie, Mrs. William L.....Hilltop Lane, Birmingham
Lutz, Mrs. Earl F.....6178 Lantern Lane, Foxcroft, Birmingham

Lynn, Mrs. H. D.....18285 Birchcrest Dr., Detroit
Lytle, Mrs. Robert P.....7065 Pinecrest Ct., Birmingham

MacFarlane, Mrs. Howard W.....3476 Seminole, Detroit
MacGregor, Mrs. W. Wilbur....6320 W. Surrey, Foxcroft Birmingham
Mackersie, Mrs. William G.....18205 Roselawn, Detroit
Maczewski, Mrs. John E.....1357 Sunningdale, Grosse Pointe
Mainwaring, Mrs. Rosser L...1910 Russell Ave., Dearborn
Malone, Mrs. John M.....17225 Melrose, Detroit
Maloney, Mrs. John A.....22635 W. 10½ Mile, Rte. #3, Box 11, Birmingham
Mapletoft, Mrs. Kenneth.....420 Mohawk, Dearborn
Marecki, Mrs. Vincent J.....9869 Chatham, Allen Park
Marks, Mrs. Bert W.....8250 Lincoln, Huntington Woods
Marsh, Mrs. Alton R.....15696 Woodlawn Ave., Dearborn
Martin, Mrs. Peter A.....17185 Muirland, Detroit
Martmer, Mrs. Edgar E.....693 Washington Rd., Grosse Pointe
May, Mrs. Frederick T.....28580 Eldorado, Lathrup Village
McAlonan, Mrs. William T.....630 Merrick, Detroit
McCadie, Mrs. James H.....14241 Artesian, Detroit
McClellan, Mrs. Gustave L.....2046 W. Boston Blvd., Detroit
McClellan, Mrs. Robert J.....20651 Orangelawn, Detroit
McColl, Mrs. Clarke M.....19701 Chesterfield, Detroit
McCormick, Mrs. Colin C.....24352 Rockford Dr., Dearborn
McCormick, Mrs. Frank T.....859 Longfellow, Detroit
McDonald, Mrs. Allan W.....15015 Ward, Detroit
McDonald, Mrs. Angus L.....81 Meadow Lane, Grosse Pointe
McDonald, Mrs. John.....5671 Shadow Lane, Bloomfield Hills
McDonald, Mrs. Wm. G.....9347 Becker, Allen Park
McEvitt, Mrs. Wm. G.....1140 W. Boston Blvd., Detroit
McGraw, Mrs. Arthur B.....70 Kenwood Rd., Grosse Pointe
McIntyre, Mrs. Wm...1233 Audubon Rd., Grosse Pointe
McIntosh, Mrs. Robert D.....6529 Burnly, Garden City
McKeever, Mrs. George E.....1767 Culver, Dearborn
McKnight, Mrs. Robert.....17364 Muirland, Detroit
McRae, Mrs. Donald H.....259 W. Grand Blvd., Detroit
Meek, Mrs. Stuart F.....13020 Kilbourne, Detroit
Menagh, Mrs. Frank R.....4010 Columbus, Detroit
Merrill, Mrs. Wm. O.....785 W. Long Lake Rd., Bloomfield Hills
Metes, Mrs. John S...1261 Fairholme Rd., Grosse Pointe
Michael, Mrs. Michael J.....938 S. Renaud Rd., Grosse Pointe
Mitchell, Mrs. C. Leslie..34 Hendrie Lane, Grosse Pointe
Molnar, Mrs. Stephen K.....434 S. Highland, Dearborn
Molner, Mrs. Joseph G.....14890 Glastonbury, Detroit
Monson, Mrs. Robert C...1070 N. Renaud, Grosse Pointe
Monto, Mrs. Raymond W.....27879 Lathrup, Lathrup Village
Mopper, Mrs. Coleman.....18716 Littlefield, Detroit
Morita, Mrs. Yoshikazu.....131 Wendelton Rd. Troy
Morley, Mrs. Harold V.....200 Hampshire Ct., Dearborn
Moroun, Mrs. S. J.....203 Lakeland, Grosse Pointe
Moseley, Mrs. S. L. (Frederick).....9152 LaSalle Blvd., Detroit
Moses, Mrs. John W.....505 Townsend, Birmingham
Mossman, Mrs. John D.....18914 Warrington, Detroit
Munson, Mrs. Henry.....466 Rivard, Grosse Pointe
Murray, Mrs. Gordon.....680 Neff Rd., Grosse Pointe
Murray, Mrs. Wm. A.....11841 Ohio, Detroit
Myers, Mrs. Dan W.....1150 Bedford Rd., Grosse Pointe

Nahigian, Mrs. Russel.....17371 Annchester, Detroit
Nehra, Mrs. John M.....662 Renaud Rd., Grosse Pointe
Nelson, Mrs. Darwin M.....63 Ridge Rd., Grosse Pointe
Newby, Mrs. Burns G.....11963 Wisconsin, Detroit
Newlander, Mrs. Willet....485 N. Evansdale, Birmingham
Newman, Mrs. Geo. F.....39550 Haggerty Ct., Northville
Nickel, Mrs. Warren.....3154 Lincoln, Dearborn
Norton, Mrs. A. B.....18615 Muirland, Detroit
Noshay, Mrs. Wm. C.....2672 W. Long Lake Rd., Rte. #2, Orchard Lake
Novy, Mrs. Robert L.....2910 Iroquois, Detroit

Oetting, Mrs. Ed. M.....2923 Iroquois, Detroit
Ohmart, Mrs. Galen B.....2150 Iroquois, Detroit
Olmsted, Mrs. George S.....3535 Burning Brush Rd., Birmingham
Olson, Mrs. James A.....19 Norwich Rd., Pleasant Ridge
Oman, Mrs. Cyrus F.....12608 Wyoming, Detroit
Ormond, Mrs. Robert S.....9039 Annapolis, Detroit
O'Rourke, Mrs. Paul V.....17725 Manderson, Detroit
O'Sullivan, Mrs. G. S.....18129 Sunnybrook, Lathrup Village
Otlewski, Mrs. Eugene A.....4367 Grayton, Detroit
Owen, Mrs. Clarence I.....1544 Vinewood, Detroit

Park, Mrs. Charles W.....8484 Salem Lane, Dearborn
Parr, Mrs. Robert Wesley....18049 San Juan Dr., Detroit
Parrish, Mrs. Rufus.....16170 LaSalle, Detroit
Parsons, Mrs. John P.....808 Grand Marais, Grosse Pointe
Pasternacki, Mrs. Norbert T...7730 E. Jefferson, Detroit
Payne, Mrs. Walter A.....357 Hillcrest, Grosse Pointe
Pederson, Mrs. Herbert E.....381 Golfcrest Dr., Dearborn
Pendy, Mrs. George V.....20170 Renfrew, Detroit
Pendy, Mrs. John M.....896 Lockmoor, Grosse Pointe
Perkin, Mrs. Frank S.....325 Lakeland, Grosse Pointe
Peterman, Mrs. Earl A...19515 Cumberland Way, Detroit
Petrini, Mrs. Mario.....18043 Wildemere, Detroit
Petty, Mrs. Thomas A.....1204 Yorkshire Rd., Grosse Pointe
Peven, Mrs. Philip.....19565 Roslyn, Detroit
Picard, Mrs. Joseph D.....501 Woodcrest, Dearborn
Pickard, Mrs. O. W.....20208 Lichfield, Detroit
Pietra, Mrs. Alex W.....1176 Bishop Rd., Grosse Pointe
Pingel, Mrs. James.....98 Norfolk, Birmingham
Polentz, Mrs. Charles P.....13450 Irvine, Oak Park
Poretta, Mrs. F. S.....8156 Normile, Detroit
Porter, Mrs. Frederick G.....19756 Lesure, Detroit
Posch, Mrs. Joseph L.....853 N. Brys Dr., Grosse Pointe
Potter, Mrs. L. S.....287 Merriweather, Grosse Pointe
Pratt, Mrs. Jean P.....18910 Fairway Dr., Detroit
Priborsky, Mrs. Benjamin H.....3005 Iroquois, Detroit
Price, Mrs. Hazen.....18605 Birchcrest, Detroit
Priest, Mrs. Robert J.....9312 Faust, Detroit
Prince, Mrs. Addison.....16150 Baylis, Detroit
Procailo, Mrs. A. B.....1940 N. Russell, Dearborn
Purcell, Mrs. Frank H.....869 Edgemont Park, Grosse Pointe

Quigley, Mrs. Wm. G.....16540 Warwick, Detroit
Quinn, Mrs. Edward L.....1141 Golfview, Birmingham

Ramsey, Mrs. Robert H.....310 River Lane, Dearborn
Rastello, Mrs. Peter.....4333 Sturtevant, Detroit
Rebuck, Mrs. John W.....16955 Beverly Rd., Birmingham
Redding, Mrs. Lowell....530 Meadowlane Rd., Dearborn
Redfern, Mrs. W. Earl.....17392 Kirkshire, Birmingham
Reed, Mrs. H. Walter..18160 Wiltshire, Lathrup Village
Reed, Mrs. Joseph O., Jr.....448 Lincoln, Grosse Pointe
Reid, Mrs. Wesley G.....17556 Parkside, Detroit
Reive, Mrs. David L.....16565 Huntington Rd., Detroit
Rennell, Mrs. Leo P.....18222 Fairfield, Detroit
Reno, Mrs. George.....18060 Rutherford, Detroit
Reveno, Mrs. Wm. S.....19398 Stratford Rd., Detroit
Reyner, Mrs. Clarence E.....19999 Stratford Rd., Detroit
Reynolds, Mrs. R. P.....17521 Hamilton Dr., Detroit
Rhoades, Mrs. Francis P.....272 Ashland, Detroit 15
Rice, Mrs. Harold B.....20420 Briarcliff, Detroit
Riddle, Mrs. Charles.....25009 Wood, St. Clair Shores
Ritter, Mrs. George....28420 Sunset Dr., Lathrup Village
Robb, Mrs. J. Milton.....315 Lakeland, Grosse Pointe
Roeglin, Mrs. Orville F.....4386 Balfour, Detroit
Robinson, Mrs. Howard.....18978 Rutherford, Detroit
Roman, Mrs. S. J.....25531 Avondale, Inkster
Ronayne, Mrs. John J.....14042 Rutland, Detroit
Ross, Mrs. Donald G.....635 Neff Road, Grosse Pointe
Rowe, Mrs. Joseph.....401 N. Brady Rd., Dearborn
Royer, Mrs. Richard R.....709 Westchester, Grosse Pointe
Ruedemann, Mrs. Albert D.....1018 Three Mile Dr., Grosse Pointe

Ruedemann, Mrs. Albert D., Jr.....242 Lewiston Rd., Grosse Pointe
Runge, Mrs. E. F.....25549 Rouge River, Dearborn
Rupp, Mrs. Jacob Roth....51 Holbrook, Apt. 208, Detroit
Sadler, Mrs. H. Harrison, Jr...594 Rivard, Grosse Pointe
Sadzikowski, Mrs. Jos. T.....1320 N. Denwood, Dearborn
Sage, Mrs. Bernard A.....210 Woodcrest Dr., Dearborn
St. Louis, Mrs. Rene J.....10909 W. Jefferson Ave., River Rouge
Salchow, Mrs. Paul T.....8285 Hartwell, Detroit
Sapala, Mrs. M. Andrew.....13021 Mackenzie, Detroit
Sawyer, Mrs. Harold F.....8900 E. Jefferson, Apt. 718, Detroit
Scarney, Mrs. Herman D.....5400 Pontiac Trail, Tre. 5, Pontiac
Schakne, Mrs. Norman R.....18411 Strathmoor, Detroit
Schlafer, Mrs. Nathan H.....18420 Wildemere, Detroit
Schmaltz, Mrs. John D.....17656 Grandville, Detroit
Schmidt, Mrs. Werner F...411 Roland Ct., Grosse Pointe
Schneck, Mrs. Robert J.....285 Voltar, Grosse Pointe
Schuknecht, Mrs. Harold.....558 Washington Rd., Grosse Pointe
Schulte, Mrs. Carl H.....20171 Renfrew, Detroit
Schultz, Mrs. Clarence.....16010 Russell, Allen Park
Schwartz, Mrs. Oscar.....19538 Roslyn, Detroit
Schweigert, Mrs. Clarence F...12185 E. Outer Dr., Detroit
Seeley, Mrs. J. B.....7870 Oakman Blvd., Dearborn
Self, Mrs. William G.....1067 Berkshire, Grosse Pointe
Sellers, Mrs. Charles W.....2051 Chicago Blvd., Detroit
Sellers, Mrs. Graham.....3371 Sherbourne Rd., Detroit
Sherman, Mrs. Wm. L.....201 E. Kirby, Detroit
Shifrin, Mrs. Peter G.....2005 Oakman Blvd., Detroit
Shors, Mrs. Clayton M...19950 Norton Ct., Grosse Pointe
Shreve, Mrs. Alfred J.....7 Amherst Lane, Dearborn
Shulman, Mrs. Herschel.....19350 Appoline, Detroit
Shumaker, Mrs. Edward J.....17606 Wildemere, Detroit
Sieber, Mrs. E. H.....5 Byfield Lane, Dearborn
Siefert, Mrs. Wm. A.....15920 Glastonbury Rd., Detroit
Sigler, Mrs. John W.....1356 Greenlawn, Birmingham
Sillery, Mrs. Robert J.....857 Grosse Pointe Ct., Grosse Pointe
Sinclair, Mrs. James W.....5936 Hillcrest, Grosse Pointe
Singer, Mrs. Floyd W.....24441 Emerson, Dearborn
Sippola, Mrs. George W.....13603 LaSalle Blvd., Sinclair
Sklar, Mrs. Manuel.....18611 Marlowe, Detroit
Slaughenhaupt, Mrs. Jesse G.....16887 Lawton, Detroit
Slevin, Mrs. John G., Jr.....1132 Whittier Rd., Grosse Pointe
Smathers, Mrs. Homer.....14669 Longacre, Detroit
Smith, Mrs. F. Janney.....1050 Yorkshire, Grosse Pointe
Smith, Mrs. Henry L.....19361 Strathcona, Detroit
Smolenski, Mrs. John.....13600 Woodmount, Detroit
Sonda, Mrs. L. Paul.....8625 Marygrove, Detroit
Spademan, Mrs. Loren C...484 Warren Ct., Birmingham
Spalding, Mrs. Edward D.....75 S. Edgewood Dr., Grosse Pointe Shores
Sphire, Mrs. Raymond.....19935 E. Dayle Place, Grosse Pointe
Stanton, Mrs. James.....17330 Fairfield, Detroit
Stapleton, Mrs. Wm. J.....201 E. Kirby, Apt. 404, Detroit
Staryk, Mrs. Steven E.....1010 N. Oxford, Grosse Pointe
Staub, Mrs. Howard.....9210 Jerome, Detroit
Stearns, Mrs. A. B.....39 Hampton, Grosse Pointe
Stebbins, Mrs. Charles E.....27645 Morningside, Lathrup Village
Stefani, Mrs. Ernest L.....18600 Birchcrest Dr., Detroit
Stellhorn, Mrs. C. E.....16589 Warwick, Detroit
Sterling, Mrs. Robert R...52 Oxford Rd., Pleasant Ridge
Stevens, Mrs. Charles H.....15422 Manor, Detroit
Stiefel, Mrs. Daniel M.....20094 Canterbury, Detroit
Stockwell, Mrs. Benjamin W.....192 Lothrop Rd., Grosse Pointe
Stokfisz, Mrs. Thaddeus....7025 Oakman Blvd., Dearborn
Straith, Mrs. Clare L.....19490 Parkside Rd., Detroit
Straith, Mrs. Richard E.....117 Elm Park, Pleasant Ridge
Strand, Mrs. Martin E.....451 Golf Crest, Dearborn
Sugar, Mrs. David I.....13120 Broadstreet, Detroit
Sutherland, Mrs. Jac M.....716 Pallister, Detroit
Stronski, Mrs. Gerald.....18090 Gruebner, Detroit
Suwinski, Mrs. Raymond H.....90 Shore Crest Circle, Grosse Pointe
Swanson, Mrs. Robert G...160 Beaupre Rd., Grosse Pointe
Swartz, Mrs. Fred.....1137 Balfour Rd., Grosse Pointe
Swift, Mrs. Karl L...38285 W. 12 Mile Rd., Farmington
Taber, Mrs. Rodman.....1134 Balfour, Grosse Pointe
Tallant, Mrs. Edward J.....19324 Westmoreland Rd., Detroit
Taylor, Mrs. Ivan B.....1421 Anita, Grosse Pointe
Taylor, Mrs. Wm. V.....324 Moross Rd., Grosse Pointe
Thompson, Mrs. Hugh..2559 Bradway Blvd., Birmingham
Thumann, Mrs. Robert.....666 Washington Rd., Grosse Pointe
Timma, Mrs. Richard.....2671 Trowbridge, Detroit
Tobin, Mrs. John S.....23056 Hayden Rd., Farmington
Todoroff, Mrs. Theodore G...22740 Hollander, Dearborn
Townsend, Mrs. Frank M.....15231 Windmill Pointe Dr., Grosse Pointe
Tracey, Mrs. John M.....27441 Morningside Plaza, Lathrup Village
Tregenza, Mrs. Wm.....1084 Brookwood, Birmingham
Tremain, Mrs. Harold L.....15475 Ashton Rd., Detroit
Truszkowski, Mrs. Edward G...9213 E. Outer Dr., Detroit
Turcotte, Mrs. Vincent J.....545 Lakeland, Grosse Pointe
Turnbull, Mrs. Jack.....6290 Burger Rd., Dearborn
Turner, Mrs. John.....9078 Minock, Detroit
Ulmer, Mrs. Arthur.....1989 Broadstone, Grosse Pointe
Usndek, Mrs. Harold....19700 Sunnyside, St. Clair Shores
Van Raaphorst, Mrs. Leonard F.....331 River Lane, Dearborn
Velat, Mrs. Clarence.....16100 Bentler, Detroit
Vonder Heide, Mrs. Elmore C.....17190 Strathmoor, Detroit
Vorwald, Mrs. Arthur J.....210 McKinley, Grosse Pointe
Vossler, Mrs. Albert E.....222 Moran Rd., Grosse Pointe
Waggonere, Mrs. Lyle.....15828 Lakeview Ct., Grosse Pointe
Wainstock, Mrs. Michael A.....18925 Wildemere, Detroit
Walker, Mrs. Roger V...1415 Parker, Apt. 1066, Detroit
Walker, Mrs. Roger V., Jr.....613 Lakewood, Detroit
Walser, Mrs. Howard C.....1300 Northlawn, Birmingham
Walter, Mrs. Floyd J.....15464 Ferguson, Detroit
Watson, Mrs. Douglas J.....28425 Woodworth Way, Lathrup Village
Watson, Mrs. J. Edwin.....1401 Pembroke Dr., Bloomfield Hills
Watts, Mrs. Joseph.....17146 Muirland, Detroit
Weaver, Mrs. Clarence E.....1260 S.E. 4th Ct., Deerfield Beach, Florida
Weber, Mrs. Karl W.....674 Renaud, Grosse Pointe
Weed, Mrs. Milton R.....1997 E. Grand Blvd., Detroit
Weiser, Mrs. Frank A.....235 Charlevoix, Grosse Pointe
Weiss, Mrs. Cassimir.....1801 E. Canfield, Detroit
Wendel, Mrs. J. S.....17310 Wildemere, Detroit
West, Mrs. Malcolm F.....16148 Baylis, Detroit
Weston, Mrs. Earl E.....5655 Forman Dr., Birmingham
Weston, Mrs. Horace L.....16196 Sunderland, Detroit
Weyher, Mrs. R. F.....5383 Oakman Blvd., Detroit
Whelan, Mrs. Joseph.....1360 Oxford Rd., Grosse Pointe
White, Mrs. Milo R.....1187 Longfellow, Detroit
Whitehouse, Mrs. Fred W.....25512 Harmon, St. Clair Shores
Whiteley, Mrs. Robert K.....216 Lakeland, Grosse Pointe
Wiechowski, Mrs. Henry E.....8054 Royat, Detroit
Wietersen, Mrs. Fred K.....260 Manor Rd., Rte. #2, Birmingham
Wight, Mrs. Frederick B.....1415 Parker, Detroit
Wikiera, Mrs. Edward S...17400 W. Outer Dr., Dearborn
Willard, Mrs. Rodney.....20524 Carlysle, Dearborn
Williams, Mrs. Clarence J.....1342 Grayton Rd., Grosse Pointe
Wilson, Mrs. Gerald.....4800 Leslie Avenue, Detroit
Wise, Mrs. Robert K.....17365 Muirland, Detroit
Wisniewski, Mrs. E. M.....20100 Cooley, Detroit
Wissman, Mrs. H. C.....6815 Oakman Blvd., Dearborn
Witter, Mrs. Joseph A.....17516 Fairfield, Detroit

Witwer, Mrs. E. R.....17452 Third Ave., Detroit
Wolfe, Mrs. Max O.....8120 E. Jefferson, Detroit
Wolter, Mrs. James G.....4494 Chamberlain, Birmingham
Wood, Mrs. Douglas....30550 Marimoor Dr., Birmingham
Wood, Mrs. Kenneth A.....4833 Mayflower Ct., Bloomfield Hills
Woolfenden, Mrs. Joseph.....1215 Three Mile Dr., Grosse Pointe
Wunsch, Mrs. Richard....497 Rivard Blvd., Grosse Pointe
Wybranowski, Mrs. Jan..20651 Cresmont Lane, Dearborn
Yott, Mrs. Wm. J.....854 Lake Shore Rd., Grosse Pointe
Young, Mrs. Don A...376 Dunston Rd., Bloomfield Hills
Young, Mrs. Lloyd B.....16603 Shaftsbury Rd., Detroit
Zabinski, Mrs. Edward.....585 Ballantyne, Grosse Pointe
Zawacki, Mrs. Sigmund..12950 S. Morrow Cir., Dearborn
Zbudowski, Mrs. Myron.....889 Bloomcrest, Birmingham
Zukowski, Mrs. Henry J.....72 N. Deeplands, Grosse Pointe

WAYNE COUNTY SOUTHERN

Alban, Mrs. Emil J., Jr.....15287 Philomene, Allen Park
Allen, Mrs. John V.....15265 Philomene, Allen Park
Beck, Mrs. Stanley M.....15649 Churchill, Wyandotte
Bennett, Mrs. H. Stanley..29767 E. River Rd., Grosse Ile
Bott, Mrs. Edmund T.....1804 Thirteenth St., Wyandotte
Bower, Mrs. Donald W.....1005 King's Highway, Lincoln Park
Boyd, Mrs. John Huntley....2052 Church Place, Trenton
Brown, Mrs. Charles H.....1729 Davis, Wyandotte
Brown, Mrs. Robert A...22623 W. River Rd., Grosse Ile
Bruer, Mrs. B. J.....9037 Park Avenue, Allen Park
Butler, Mrs. Harry R.....9415 Mortonview, Dearborn
Cahalan, Mrs. Joseph L.....13381 Catalpa, Wyandotte
Cameron, Mrs. Arthur J.....115 Vinewood, Wyandotte
Cassel, Mrs. Harry E.....1816 Fifteenth St., Wyandotte
Coan, Mrs. Glenn.....24099 W. River Rd., Grosse Ile
Cook, Mrs. James A.....2246 Twentieth St., Wyandotte
Deering, Mrs. Robert J...26225 W. River Rd., Grosse Ile
Easterly, Mrs. Robert L.....2514 18th St., Wyandotte
Engel, Mrs. Earl H.....33 Emmons Ct., Wyandotte
Erickson, Mrs. Eldon W...29385 W. River Rd., Grosse Ile
Firnschild, Mrs. Paul G.....10528 Andrews, Allen Park
Foote, Mrs. James A.....870 Winchester, Lincoln Park
Frothingham, Mrs. George E...1657 23rd St., Wyandotte
Ganos, Mrs. Thomas.....9238 Vine, Allen Park
Gilbert, Mrs. Harold R...13146 Phelps Blvd., Wyandotte
Herkimer, Mrs. Daniel R.....1802 Buckingham, Lincoln Park
Hileman, Mrs. S. Lee.....755 New York, Lincoln Park
Hillyer, Mrs. John W...29897 Red Cedar Dr., Flat Rock
Holmes, Mrs. George F.....23 Emmons Ct., Wyandotte
Honor, Mrs. Wm. H.....2044 E. River Rd., Grosse Ile
Hookey, Mrs. J. A...2872 Van Alstyne Blvd., Wyandotte
Jones, Mrs. Wm. J.....15839 Crescent Dr., Allen Park
Hoffer, Mrs. Thomas.....1556 Walnut, Dearborn
Kelly, Mrs. John J.....2820 22nd St., Wyandotte
Knaggs, Mrs. Earl J.....13179 Phelps Blvd., Wyandotte
Knapp, Mrs. Byron S.....7536 Colwell, Allen Park
Knox, Mrs. Ross M.....15400 Philomene, Allen Park
Koschnitzke, Mrs. Herman K.....23580 E. River Rd., Grosse Ile
Kowaleski, Mrs. John J.....9646 Vine St., Allen Park
Kutsche, Mrs. John D.....2616 Kenox, Trenton
Kwasiborski, Mrs. Stanley A.....9495 Island, Grosse Ile
LaBerge, Mrs. J. M.....1767 Ash St., Wyandotte
Lebamoff, Mrs. Alexander T...7427 Rosedale, Allen Park
Libbrecht, Mrs. Robert V...15330 Wick Rd., Allen Park
Maibauer, Mrs. Fred P.....1742 Ash St., Wyandotte
Maynard, Mrs. Fred M.....9366 Manor, Allen Park
McColl, Mrs. Charles W.....2285 21st St., Wyandotte
McGlaughlin, Mrs. N. D.....2062 22nd St., Wyandotte
Mikesell, Mrs. Wesley B., Jr.....24650 Kensington, Taylor Township
Momcilovich, Mrs. Bozidar..24537 Laurel Dr., Flat Rock
Morley, Mrs. Arthur R., Jr.....15753 Promenade, Allen Park
Murray, Mrs. Robert J.....2906 Riverside Dr., Trenton
Nagle, Mrs. John W.....26633 W. River Rd., Grosse Ile
Noe, Mrs. Joseph T.....8436 Church, Grosse Ile
Proud, Mrs. Robert H...29155 Evergreen Ave., Flat Rock
Raby, Mrs. Naim.....3299 Ward, Trenton
Ray, Mrs. Kenneth J.....28059 Elba Dr., Grosse Ile
Ridge, Mrs. Ralph W.....3227 Van Alstyne Blvd., Wyandotte
Roberts, Mrs. Arthur J.....859 Winchester, Lincoln Park
Rogers, Mrs. J. Dudley.....2329 20th St., Wyandotte
Russell, Mrs. Henry N., Jr.....9384 Island Dr., Grosse Ile
Schroeder, Mrs. Carlisle F.....26505 E. River Rd., Grosse Ile
Schwarz, Mrs. Frank W.....321 S. Claremont, Dearborn
Solomon, Mrs. Robert J.....27321 W. River Road, Grosse Ile
Speck, Mrs. Carlos C.....14839 Markese, Allen Park
Stryker, Mrs. Walter A.....21604 East River Road Grosse Ile
Szladek, Mrs. Frank J.....28315 Elba Drive, Grosse Ile
Taurence, Mrs. William H.....2316 20th St., Wyandotte
Tenaglia, Mrs. Thomas A.....820 King's Highway, Lincoln Park
Thomson, Mrs. Daniel C.....18459 Parke Lane, Grosse Ile
Van Becelaere, Mrs. Lawrence A.....21355 Knudsen Dr., Grosse Ile
White, Mrs. Donald H.....20685 Meridian, Grosse Ile
Whitelock, Mrs. Edward H.....650 King's Highway, Wyandotte
Worzniak, Mrs. Joseph J.....1639 Davis, Wyandotte

WEXFORD COUNTY

Bentley, Mrs. Dean.....204 Locust In, Cadillac
Cardinal, Mrs. Thomas.....479 Stimson, Cadillac
Daugharty, Mrs. Robert....1020 Sunnyside Drive, Cadillac
Inman, Mrs. John.....Lake City
Koepke, Mrs. Benjamin.....McBain
Lommen, Mrs. Ralph.....Manton
Moon, Mrs. William.....826 Oak St., Cadillac
Moone, Mrs. Gregory.....734 E. Division St., Cadillac
Posthuma, Mrs. Millard.....423 E. Cass St., Cadillac
Paye, Mrs. Philip....1628 S. Lake Mitchell Dr., Cadillac
Peterson, Mrs. William.....Mesick
Tonnberg, Mrs. Gordon.....1430 Sunnyside, Cadillac

MEMBERS-AT-LARGE

Birk, Mrs. Wilbur R.....909 N. Taffee, Hastings
Clary, Mrs. Rudolph I.....403 Main St., Dowagiac
Davis, Mrs. Lloyd A.....Box 128, Camden
Finnie, Mrs. R. G.....416 S. Broadway, Hastings
Gwinn, Mrs. Alexander B.....972 Cook Road, Rt. 1, Hastings
Hasty, Mrs. Willis A.....218 N. State, Shelby
Henderson, Mrs. Donald G...South Shore Road, Ossineke
Hickman, Mrs. John K.....514 Green Street, Dowagiac
Hodge, Mrs. C. L.....415 South Main St., Reading
Leopard, Mrs. Jack M.....308 Liberty, Alpena
Lipski, Mrs. John G.....Posen
Loupee, Mrs. S. L.....108 Orchard St., Dowagiac
Parmenter, Mrs. E. S.....P. O. Box 192, Alpena
Sawyer, Mrs. Walter W.....Baw Beese Lake, Hillsdale
Strong, Mrs. William F.....River St., Ontonagon
Vrbanac, Mrs. John J.....Rt. 1, Hart

Michigan State Medical Assistants Society

Directory of Members, 1959

Unorganized Societies

Number of Members, 10

BARRY COUNTY

Downs, Mrs. Geraldine.....A. B. Gwinn, M.D.
W. G. Logan, M.D.
102 E. State St., Hastings

Heise, Mrs. Joyce.....E. L. Phelps, M.D.
118 E. Walnut St., Hastings

Marble, Mrs. Ruth.....R. G. Finnie, M.D.
E. L. Phelps, M.D.
118 E. Walnut St., Hastings

Wensley, Mrs. Elizabeth.....R. G. Finnie, M.D.
E. L. Phelps, M.D.
118 E. Walnut St., Hastings

CLARE COUNTY

Gallagher, Mrs. Martha.....Kuno Hammerberg, M.D.
403 S. McEwan Rd., Clare

DICKINSON COUNTY

Melin, Mrs. Shirley.....D. R. Smith, M.D.
100 West "A" St., Iron Mountain

Nault, Emily C.....W. H. Alexander, M.D.
Commercial Nat'l Bank Bldg., Iron Mountain

Swanson, Mrs. Alice.....W. R. Gladstone, M.D.
804 Main St., Norway

GRAND TRAVERSE COUNTY

Downer, Mrs. Fern C.....F. G. Swartz, M.D.
301 State Bank Bldg., Traverse City

LAPEER COUNTY

Dionise, Mrs. Ernstine.....H. B. Zemmer, M.D.
C. Dorland, M.D.
311 Clay St., Lapeer

Organized Counties

ALLEGAN COUNTY

Number of Members, 16

Ater, Mrs. Virginia.....H. E. Schneiter, M.D.
425 Cutler St., Allegan

Bronkhorst, Mrs. Maxine.....E. Topp, M.D.
502 N. Main St., Plainwell

Boynton, Mrs. Hilda.....Allegan Health Center
Allegan

Daleiden, Eveline A.....J. Clark, M.D.
Fennville

Endsley, Mrs. Velma.....James Clark, M.D.
Fennville

Hitchcock, Mrs. Helen.....A. P. Brachman, M.D.
222 Trowbridge St., Allegan

Marciniak, Mrs. Betty.....E. W. Topp, M.D.
502 N. Main St., Plainwell

McIntyre, Mrs. Maxine.....R. I. McFadden, M.D.
Bloomingdale

Plunkett, Mrs. Ann.....J. C. Clark, M.D.
Fennville

Pullen, Mrs. Louise.....A. P. Brachman, M.D.
222 Trowbridge St., Allegan

Nash, Mrs. Mary.....Allegan Health Center
Linn St., Allegan

Rantz, Mrs. Mary Jane.....Plainwell Sanitarium
Plainwell

Smith, Mrs. Barbara.....A. P. Brachman, M.D.
222 Trowbridge St., Allegan

Spreitzer, Mrs. Cecilia.....J. A. Mahan, M.D.
402 Trowbridge St., Allegan

Troutt, Elaine.....H. Schneiter, M.D.
425 Cutler St., Allegan

Wilkinson, Mrs. Audrey.....Allegan Health Center
Linn St., Allegan

BAY COUNTY

Number of Members, 41

Anderson, Jean.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Bergman, Mrs. Esther.....H. T. Knoblock, M.D.
1102 Columbus, Bay City

Bublitza, Mrs. Arlene.....H. C. Shafer, M.D.
101 W. John, Bay City

Bush, Grace.....M. C. Jones, M.D.
900 N. Jackson, Bay City

D'Arcy, Gladys.....J. W. Grigg, M.D.
900 N. Jackson, Bay City

De Witt, Mrs. Marilyn (Curry).....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Eseltine, Ruth E.....Z. E. Taheri, M.D.
1411 Center Avenue, Bay City

Feibke, Helen.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Fortin, Marilyn.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Foucault, Mrs. Maureen.....D. Standiford, M.D.
101 W. John, Bay City

Goddard, Ruth.....W. E. Pelczar, M.D.
J. T. Geneczko, M.D.
C. B. McSherry, M.D.
1102 Columbus, Bay City

Halstead, Mrs. John (Sikorski)....P. R. Urmston, M.D.
303 Davidson Building, Bay City

Hile, Betsy E.....M. D. Jaffe, M.D.
304 Davidson Building, Bay City

Hogle, Mrs. Martha.....W. R. McDonnell, M.D.
219 W. Third, Pinconning

Hompstead, Esther.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Hornsby, Marcia.....Robert Criswell, M.D.
407 W. Third, Pinconning

Kaunitz, Mrs. Altha.....C. W. Reuter, M.D.
101 W. John, Bay City

Kehrl, Mrs. Evelyn.....Samaritan Hospital-Laboratory
713 Ninth, Bay City

Kolanek, Mrs. Margaret.....W. E. Pelczar, M.D.
J. T. Geneczko, M.D.
L. B. McSherry, M.D.
1102 Columbus, Bay City

Lance, Elva.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

LaPlant, Janice.....D. E. Suter, M.D.
307 Davidson Buliding, Bay City

Legner, Mrs. Lena.....R. B. Asbury, M.D.
1113 N. Johnson, Bay City

Libera, Joan R.....Wm. S. Reed, M.D.
1705½ 3rd Street, Bay City

Mitchell, Marcia.....Z. E. Taheri, M.D.
1411 Center, Bay City

Molyneaux, Mrs. Beatrice.....C. W. Reuter, M.D.
101 W. John, Bay City

Morand, Mary F.....L. P. Hickner, M.D.
101 W. John, Bay City

Mosier, Patricia Ann.....Samaritan Hospital-Laboratory
713 Ninth, Bay City

Piening, Mary B.....F. Chapin, M.D.
T. Wright, M.D.
A. Ellison, M.D.
101 W. John, Bay City

Riegler, Mrs. Marjorie.....F. J. Chapin, M.D.
A. Ellison, M.D.
T. B. Wright, M.D.
101 W. John, Bay City

Roueche, Mrs. Gretchen.....A. D. Allen, M.D.
101 W. John, Bay City

Rivet, Sally Ann.....J. C. Cooper, M.D.
102 Woodside, Essexville

Sheldon, Mrs. Florence.....D. J. Mosier, M.D.
101 W. John, Bay City

Sowers, Mrs. Mary.....H. C. Shafer, M.D.
101 W. John, Bay City

Stegmann, Judie Ann.....J. C. Cooper, M.D.
102 Woodside, Essexville

Verity, Gertrude M.....W. R. McDonnell, M.D.
Pinconning

Walsh, Mrs. Beverly (Jones).....F. J. Shafer, M.D.
A. Ellison, M.D.
T. B. Wright, M.D.
101 W. John, Bay City

Weber, Elizabeth Ann.....Wm. S. Reed, M.D.
1705½ 3rd Street, Bay City

Weigle, Florence.....J. N. Asline, M.D.
O. J. Brown, M.D.
G. M. Johnson, M.D.
E. J. Kulinski, M.D.
207 N. Walnut, Bay City

Wilcox, Mrs. Kay....Allen Medical Building-Laboratory
101 W. John, Bay City

Williams, Mildred.....Allen Medical Building
101 W. John, Bay City

Zaremba, Madeline.....A. J. Zaremba, M.D.
108 S. Madison, Bay City

BERRIEN COUNTY

Number of Members, 43

Bennett, Marion.....John Manning, M.D.
922 Main Street, St. Joseph

Bodke, Mrs. Carmen.....Associate
1621 Forres Ave., St. Joseph

Buchbinder, Mrs. Dorothy.....Micheal Faber, M.D.
209 State Bank Bldg., Benton Harbor

Devens, Mrs. Rosemary.....Associate
712 Port Street, St. Joseph

Case, Audrey.....Memorial Hospital
St. Joseph

Craig, Gloria.....Samuel Gould, M.D.
127 E. Napier, Benton Harbor

Dooling, Mrs. Kathleen.....Franklyn Rice, M.D.
324 No. 4th, Niles

Evans, Mrs. Gloria.....Dean Hudnutt, M.D.
811 Myrtle, St. Joseph

Frame, Lyla.....H. M. Pritchard, M.D.
12 No. 4th, Niles

Goglin, Mrs. Rose.....H. J. Cawthorne, M.D.
237 Pipestone, Benton Harbor

Hansley, Mrs. Enid.....John Manning, M.D.
922 Main Street, St. Joseph
Hess, Kathryn.....Fred Lindenfeld, M.D.
8 N. St. Joseph St., Niles
Houser, Joyce.....Stanley Mesirow, M.D.
611 Fidelity Bldg., Benton Harbor
Hildebrand, Ruth.....J. G. Ruth, M.D.
925 Pipestone, Benton Harbor
Howorth, Violet.....Samuel Gould, M.D.
127 E. Napier, Benton Harbor
Jannes, Mrs. Evelyn.....Associate
R. 2, Box 135, Benton Harbor
Johnson, Mrs. Sara.....W. Scott Moore
107 N. 2nd, Niles
Kalke, Mrs. Shirley.....R. L. Green, M.D.
Barbara Green, M.D.
2600 Morton, St. Joseph
Kibler, Mrs. Pat.....Associate
1159 Monroe, Benton Harbor
Kickles, Mrs. Evelyn.....Memorial Hospital Lab.
St. Joseph
Kirkdorfer, Margaret J.....Memorial Hospital
St. Joseph
Kroening, Mrs. Judy.....Joseph Conway
469 Main, Watervliet
Lashier, Mrs. Hazel.....E. L. Garrett, M.D.
G. R. Fattic, Jr., M.D.
D. K. Peshka, M.D.
612 N. St. Joseph, Niles
Leonard, Mrs. Mary.....Charles Porter, M.D.
170 Wall St., Benton Harbor
LaFayette, Dolores.....P. G. Hanna, M.D.
10 Century Blk., St. Joseph
McDonald, Kay.....Franklyn Rice, M.D.
324 No. 4th, Niles
McMillan, Mrs. Joan.....B. B. King, M.D.
687 E. Empire, Benton Harbor
McKay, Mrs. Margaret.....D. W. Thorup, M.D.
756 Pipestone, Benton Harbor
Montfort, Mrs. Noreen.....Luther Zick, M.D.
2522 Niles, St. Joseph
Monahan, Patsy.....Fred Lindenfeld, M.D.
8 N. St. Joseph St., Niles
Meller, Mrs. Connie (Adams).....Memorial Hospital
St. Joseph
Ogden, Mrs. Lillian.....R. L. Green, M.D.
Barbara Green, M.D.
2600 Morton, St. Joseph
O'Toole, Mrs. Dorothy.....Associate
1423 Michigan St., St. Joseph
Page-Wood, Mrs. Beatrice.....G. J. Ruth, M.D.
925 Pipestone St., Benton Harbor
Postelli, Mrs. Lucy.....Clinical Laboratory
214 Fidelity Bldg., Benton Harbor
Rogers, Mrs. Mildred.....Thomas Hayes, M.D.
922 Main Street, St. Joseph
Richcreek, Mrs. Inger.....B. F. Sowers, M.D.
756 Pipestone St., Benton Harbor
Siebert, Mrs. LaRue.....Frank King, Jr., M.D.
610 Fidelity Bldg., Benton Harbor
Taylor, Mrs. Clara.....R. C. Crowell, M.D.
Peoples St. Bank Bldg., St. Joseph
Treadway, Mrs. Nora.....Associate
1121 Miller Lane, St. Joseph
Truhn, Shirley.....Thomas Hayes, M.D.
922 Main Street, St. Joseph
Weik, Caroline.....K. H. Cowdery, M.D.
H. I. Kalsall, M.D.
1600 Niles, St. Joseph
Wille, Mrs. Carolyn M.....D. K. Ray, M.D.
2522 Niles, St. Joseph

BRANCH COUNTY

Number of Members, 21

Anderson, Mrs. Carol.....H. R. Weidner, M.D.
R. R. Southworth, M.D.
50 Division Street, Coldwater
Blanchett, Barbara.....Community Health Center
274 E. Chicago Street, Coldwater
Borders, Pearl.....C. A. Coates, M.D.
105 E. Chicago St., Coldwater
Dennison, Mrs. Helen.....D. T. Culver, M.D.
292 E. Chicago Street, Coldwater
Flower, Mrs. Mildred.....H. R. Meier, M.D.
W. E. Nettleman, M.D.
87 W. Pearl Street, Coldwater
Hill, Donna.....R. D. Smith, M.D.
234 S. Main Street, Colon
Kaechele, Wilma.....D. T. Culver, M.D.
173 E. Chicago St., Coldwater
Keller, Mrs. Mary Ann.....H. R. Weidner, M.D.
R. R. Southworth, M.D.
50 Division Street, Coldwater
Keller, Patricia.....H. L. Moss, M.D.
292 E. Chicago St., Coldwater
Lockwood, Dorothy.....
Coldwater State Home & Training School
Coldwater
MacDonald, Mrs. Lydia.....N. S. Aldrich, M.D.
15 E. Pierce St., Coldwater
Marriott, Rita.....H. L. Moss, M.D.
292 E. Chicago Street, Coldwater
Noragan, Janice.....R. R. Southworth, M.D.
50 Division St., Coldwater
Pifer, Lu Ann.....Community Health Center
274 E. Chicago St., Coldwater
Rude, T. Jean.....Community Health Center
274 E. Chicago St., Coldwater
Skinner, Elaine.....H. C. Gomley, M.D.
Bronson
Smith, Mrs. Mary.....R. J. Fraser, M.D.
22 Pearl St. W., Coldwater
Snyder, Ruth.....Wm. E. Nettleman, M.D.
87 W. Pearl St., Coldwater
Thomson, Mrs. Dorothy (Allison).....H. J. Meier, M.D.
87 W. Pearl St., Coldwater
Van Dyke, Betty.....
Branch County & Hillsdale Health Dept.
35 S. Sprague, Coldwater
Walker, Beverly.....Community Health Center
274 E. Chicago St., Coldwater

CALHOUN COUNTY

Number of Members, 70

Aldredge, Mrs. Dorothy.....P. C. Kingsley, M.D.
J. Robbert, M.D.
191 College St., Battle Creek
Alspaugh, Mrs. Kathleen.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 Capital Avenue, N.E., Battle Creek
Bacon, Mrs. Velma.....Paul Diamante, M.D.
1704 Wolverine Building, Battle Creek
Ball, Mrs. Catherine.....Kimball San. & Lab. & X-ray
1150 E. Michigan, Battle Creek
Bauer, Lorene.....Community Hospital
200 Thompkins Street, Battle Creek
Bick, Vonda.....Joseph Levy, Jr., M.D.
231 North Avenue, Battle Creek
Borr, Mrs. Charlotte.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 Capital Avenue, N.E., Battle Creek

Cadwallader, Mrs. Ann.....G. T. Kelleher, M.D.
235 North Avenue, Battle Creek
Callahan, Mrs. Mary.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubley, M.D.
1407 Security National Bank, Battle Creek
Chamberlain, Mrs. Marion.....G. A. Zindler, M.D.
12th Floor Security Bank, Battle Creek
Clark, Mrs. Jane.....M. J. Capron, Sr., M.D.
806 Security Bank Building, Battle Creek
Clark, Nelda.....Kenneth Lowe, M.D.
231 North Avenue, Battle Creek
Conkell, Helen.....Jack Campbell, M.D.
612 Michigan Nat. Bank, Battle Creek
Covle, Mrs. Nell.....P. P. Bonifer, M.D.
231 North Avenue, Battle Creek
Dart, Mrs. Jean.....G. W. Slagle, M.D.
R. W. Brown, M.D.
203 Capital Avenue, N.E., Battle Creek
Diggs, Mrs. Edna.....Francis Lam, M.D.
408 Capital Avenue, S.W., Battle Creek
Diver, Lottie M.....Myron Tazelaar, M.D.
219 N. Madison St., Marshall
Doane, Mrs. Kay.....Francis L. Lam, M.D.
408 Capital Avenue, N.E., Battle Creek
Dott, Mrs. Dorotka.....L. P. Shipp, M.D.
1414 Security Bank, Battle Creek
Frazier, Carolyn.....R. H. Frazier, M.D.
25 W. Michigan Ave., Battle Creek
Fetzer, Ruth.....A. A. Humphrey, M.D.
1602 Security Natl. Bank Bldg., Battle Creek
Faust, Mrs. Pearl M.....P. J. Diamante, M.D.
1704 Wolverine Tower, Battle Creek
Gibson, Mrs. Emma.....S. A. Yannetelli, M.D.
1313 W. Michigan Ave., Battle Creek
Gilger, Mrs. Mary.....Stanley Lowe, M.D.
231 North Ave., Battle Creek
Globensky, Mrs. Nan.....Sheldon Memorial Hospital
Albion
Greene, Mrs. Alta.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
1407 Security National Bank, Battle Creek
Griffin, Mrs. Donna.....G. W. Slagle, M.D.
R. W. Brown, M.D.
203 Capital Ave., N.E., Battle Creek
Griffith, Mrs. Dolores.....J. C. Griffith, M.D.
1407 Security Tower, Battle Creek
Grodi, Mrs. Ruth M.....R. K. Curry, M.D.
Homer
Hall, Mrs. Sally (Davis).....E. M. Chandler, M.D.
1407 Mich. Natl. Bank Bldg., Battle Creek
Howard, Mrs. Joan.....Philip Bonifer, M.D.
231 North Ave., Battle Creek
Hunt, Mrs. Jerrie.....B. Zheuthlin, M.D.
50 Adams Street, Battle Creek
Jarchow, Mrs. Dorothy.....P. C. Kingsley, M.D.
J. Robbert, M.D.
R. H. Allen, M.D.
191 College St., Battle Creek
Jenkins, Mrs. Claudia.....Clifford Taylor, M.D.
308½ S. Superior St., Albion
Jerrell, Mrs. Frances.....P. C. Kingsley, M.D.
J. Robbert, M.D.
R. H. Allen, M.D.
191 College St., Battle Creek
Johnson, Mrs. Dorothy.....Bertram Zheuthin, M.D.
50 Adams Street, Battle Creek
Jones, Mrs. Marion.....Tyce K. Jones, M.D.
118 W. Green Street, Marshall
Jones, Mrs. Helen.....M. J. Capron, M.D.
806 Security Bank, Battle Creek
Kahler, Mrs. Letha.....W. R. Birk, M.D.
146 E. State Street, Hastings
Kelleher, Mrs. Mary.....G. C. Kelleher, M.D.
235 North Ave., Battle Creek
Killion, Hazel.....Jack Campbell, M.D.
612 Mich. Natl. Bank Bldg., Battle Creek
Lewis, Mrs. Mary E.....D. K. Hibbs, M.D.
623 Post Bldg., Battle Creek
Lewis, Mrs. Jean.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
1407 Security National Bank, Battle Creek
McCray, Mrs. Jean.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 Capital Avenue, N.E., Battle Creek
Miller, Mrs. Joan.....P. C. Kingsley, M.D.
J. Robbert, M.D.
R. H. Allen, M.D.
191 College St., Battle Creek
Miller, Mrs. Thelma.....S. Fairbanks, M.D.
306 S. Superior, Albion
Mitchell, Mrs. Evelyn.....B. Zheuthlin, M.D.
50 Adams Street, Battle Creek
Moffett, Irene.....Leland Shipp, M.D.
1414 Security Natl. Bank, Battle Creek
Morgan, Syliva L.....Sheldon Memorial Hospital
Albion
Myers, Patricia Ann.....D. H. Castleman, M.D.
146 E. State St., Hastings
Parent, Mrs. Frances.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 Capital Avenue, N.E., Battle Creek
Plott, Claridith Jeanne.....Thomas Kavanagh, M.D.
513 Mich. Natl. Bank, Battle Creek
Polston, Mrs. Byrl.....Louisell, M.D.
Fort Custer State Home, Battle Creek
Racine, Mrs. Norma.....H. L. Daly, Jr., M.D.
M. S. Daly, M.D.
318½ S. Superior, Albion
Rising, Mrs. Dorothy.....R. K. Curry, M.D.
Homer
Roberts, Joan.....A. Hamady, M.D.
P. S. Ferazzi, M D.
140 Capital Avenue, N.E., Battle Creek
Robinson, Mrs. Atholyn.....Retired-Associate
204 W. Roosevelt, Battle Creek
Shedd, Mrs. Reta V.....C. M. Spencer, M.D.
308½ S. Superior, Albion
Shivley, Mrs. Betty.....Thomas Kavanagh, M.D.
513 Mich. Natl. Bank, Battle Creek
Siddall, Mrs. Suzanne.....Alfred Hamady, M.D.
P. S. Ferazzi, M.D.
140 Capital Avenue, N.E., Battle Creek
Slager, Mrs. Katherine.....P. C. Kingsley, M.D.
J. Robbert, M.D.
R. H. Allen, M.D.
191 College St., Battle Creek
Stampfler, Mrs. Mary Louise.....Duane Worcess, M. D.
165 Capital Ave., N.E., Battle Creek
Strong, Mrs. Ruthe.....R. H. Frazier, M.D.
1112 Security Bank, Battle Creek
Sutton, Mrs. Margaret.....R. L. Mustard, M.D.
R. A. Stiefel, M.D.
J. W. Hubly, M.D.
1407 Security National Bank, Battle Creek
Taylor, Mrs. Addie.....Retired-Associate
5 John R Street, Battle Creek
Thompson, Mrs. Betty.....P. C. Kingsley, M.D.
J. Robbert, M.D.
R. H. Allen, M.D.
191 College St., Battle Creek
Trudgeon, Mrs. June.....J. Rosenfeld, M.D.
158 Capital Ave., N.E., Battle Creek
Vandervoort, Mrs. Betty.....Leland Keagle, M.D.
196 North Ave., Battle Creek
Williams, Mrs. Helen.....Alice F. Campbell, M.D.
103 E. Mulberry, Albion
Zinn, Mrs. Joyce.....R. J. Campbell, M.D.
J. R. Power, M.D.
C. D. Stephenson, M.D.
140 Capital Ave. N.E., Battle Creek

DETROIT

Number of Members, 94

Anderson, Wilma.....J. C. Reid, M.D.
1337 David Whitney Bldg., Detroit 26
Badowaki, Celia.....Associate Member
4720 McDougall, Detroit
Bachman, Theresa.....Wm. A. Summers, M.D.
1613 David Whitney Bldg., Detroit 26
Baker, Mary Jane.....R. F. McNeill, M.D.
119 Kercheval Ave., Grosse Pointe Farms 36
Baker, Helen C.....Memorial Clinic
23700 Van Dyke, Van Dyke
Ball, Barbs.....Doctors Group
2336 Van Alstyn, Wyandotte
Barbaglia, Regina.....E. Baungarten, M.D.
8045 E. Jefferson, Detroit 14
Bartlett, Mrs. Esther.....R. E. Novy, M.D.
858 Fisher Bldg., Detroit
Baxmann, Marsha.....M. Brant, M.D.
N. Feldman, M.D.
11420 Mack, Detroit 14
Belasco, Velma.....E. T. Capuzzi, M.D.
790 Main St., Northville
Billings, Mrs. Jacquelyne.....R. J. Arrington. M.D.
8711 Oakland, Detroit
Bush, Geraldine.....L. Schwartz. M.D.
862 Fisher Bldg., Detroit
Cadieuz, Luella.....H. E. Schmidt, M.D.
667 Fisher Bldg., Detroit 2
Campbell, Beverly.....Julius Tapert, M.D.
888 Chalmers, Detroit 15
Capshaw, Alice.....Roy Tupper, M.D.
15105 W. Seven Mile, Detroit 35
Ceaser, Ruth.....Cecil W. Lepard, M.D.
1025 David Whitney Bldg., Detroit 26
Cheung, Alice.....D. N. Morgan, M.D.
1307 David Whitney Bldg., Detroit 26
Clemens, Ida.....J. F. Wenzel, M.D.
1006 Kales Bldg., Detroit 26
Clinton, Patricia.....M. B. Levy, M.D.
13906 Woodward, Detroit 3
Coffman, Sarah.....E. Osius, M.D.
901 David Whitney Bldg., Detroit 26
Cousineau, Thelma.....Chas. Gitlin, M.D.
15301 W. Nine Mile Rd., Oak Park
Cross. Mary Jane (Dick).....C. V. Smith, M.D.
1716 E. Grand Blvd., Detroit 11
Currier, Mildred.....Associate
10 Louise Ave., Highland Park
Davidovich, Nada.....S. W. Trythall, M.D.
13300 Livernois, Detroit 38
DeYoung, Dorothy L.....A. E. Vossler, M.D.
825 David Whitney Bldg., Detroit 26
Drake, Margaret.....E. A. Hoffman, M.D.
7615 W. Vernor Hwy., Detroit 9
Eifert, Margaret.....H. L. Keim, M.D.
1110 David Broderick Twr., Detroit 26
Eisenmann, Anita Jean.....E. J. Neill, M.D.
8045 East Jefferson, Detroit 14
Ellison, Barbara Lee.....J. P. Hubbard, M.D.
14620 E. Seven Mile Rd., Detroit 5
Folgman, Millicent.....Sidney Chapin, M.D.
10149 Mich. Ave., Dearborn
French, Adeline.....Robt. W. Parr, M.D.
8265 Genl. Motors Bldg., Dearborn
Foley, Coleen.....V. A. Kelmenson, M.D.
7365 12th St., Detroit 6
Flynn, Maxine.....E. L. Sagar, M.D.
13902 Gratiot, Detroit 50
Funk, Vicky.....P. T. Salchow, M.D.
1151 Taylor, Detroit 2
Gasperson, Mrs. Nelda.....D. L. Rosseau, M.D.
V. Curatolo, M.D.
Rm. 610-67 Cass Ave., Mt. Clemens
Gesell, Mrs. Betty.....D. Shumaker, M.D.
H. V. Morley, M.D.
G. L. Reno, M.D.
970 Fisher Bldg., Detroit 2
Grabowski, Mary Rose.....J. L. Posch, M.D.
1405 Kales Bldg., Detroit 26
Graham, Ruth.....Howard West, M.D.
12739 Puritan, Detroit 27
Gotts, Audrey.....L. M. Hotchkiss, M.D.
33220 W. Seven Mile Rd., Livonia
Gustaf, Mrs. Barbara.....M. S. Brent, M.D.
13503 Northlawn, Detroit 38
Heidelberger, Freda.....Associate Member
1438 Ferry Pk., Detroit
Hippe, Mrs. Evelyn.....Chester J. Bogucki, M.D.
11455 E. McNichols, Detroit 34
Hoffman, Jean G.....Edw. A. Hoffman, M.D.
7615 W. Vernor Hwy., Detroit 9
Hughes, Mrs. Gladys.....C. W. Lepard, M.D.
413 Fisher Rd., Grosse Pointe 30
Jagger, Mavis.....J. C. Tappert, M.D.
888 Chalmers, Detroit 15
Jarrad, Doris.....Mich. State Med. Soc.
1010 Antietam, Detroit 7
Johnson, Joyce.....M. S. Brent, M.D.
F. Feldman, M.D.
11420 Mack, Detroit 14
Karl, Barbara.....M. Houser, M.D.
7411 Third, Detroit 2
Karl, Mary Ann.....Luther Leader, M.D.
1129 David Whitney Bldg., Detroit 26
Kavan, Dolores.....B. Parker, M.D.
19149 W. Seven Mile Rd., Detroit 19
Kobylka, Dolores.....W. Sheldon, M.D.
J. Birmingham, M.D.
14215 W. McNichols, Detroit 35
Kotsch, Elizabeth.....W. L. Anderson, M.D.
1217 David Whitney Bldg., Detroit 24
Kuhn, Gaige.....R. M. Atchison, M.D.
501 W. Dunlap, Dearborn
Larry, Joan.....F. B. MacMillan, M.D.
920 David Whitney Bldg., Detroit 26
Lojowski, Lydia.....R. Elvidge, M.D.
2900 W. Grand Blvd., Detroit 2
Luden, Gilda.....W. E. Sheldon, M.D.
J. R. Birmingham, M.D.
14215 W. McNichols, Detroit 35
Malkey, Grace.....R. W. Moore, M.D.
R. K. Whiteley, M.D.
541 David Whitney Bldg., Detroit 26
Marsh, Mabel.....N. Levitt, M.D.
607 Kales Bldg., Detroit 26
Maze, Thomas.....
Ford Motor Co., & Midway Medical Center
8233 W. Chicago, Detroit 4
McCartney, Elizabeth F.....H. A. Dunlap, M.D.
7815 E. Jefferson, Detroit 14
McIntosh, Mrs. Cora.....C. F. Matthews, M.D.
407 Montier-Leader Bldg., Mt. Clemons
Meyers, Virginia.....James Barron, M.D.
Henry Ford Hospital
2799 W. Grand Blvd., Detroit 2
Miller, Katherine.....B. F. Seabrooks, M.D.
9136 Oakland, Detroit 11
Miller, Virginia.....C. F. Schroeder, M.D.
7815 E. Jefferson Ave., Detroit 14
Morgan, Dorothe.....Fred Fischer, M.D.
205 Professional Bldg., Detroit 1
Morgan, Rae (Cross).....E. H. Sieber, M.D.
J. W. Pichette, M.D.
15112 Michigan, Dearborn
Murphy, Patricia.....Robert Crossen, M.D.
933 David Whitney Bldg., Detroit 26

Navin, Mrs. Mary.....Mary Sands, M.D.
24110 Oxford, Dearborn
Palmer, Mrs. Marilyn (Rupp).....C. J. France, M.D.
17712 Mack Ave., Grosse Pointe 24
Peters, Mrs. Mary T.....R. I. Larned, M.D.
14182 Gratiot Ave., Detroit 5
Redman, Marlouise.....R. W. Moore, M.D.
R. K. Whiteley, M.D.
541 David Whitney Bldg., Detroit 26
Regnaert, Esther G.....H. T. E. Muson, M.D.
7815 E. Jefferson Ave., Detroit 14
Rice, Jacqueline.....J. M. LaBerge, M.D.
R. W. Ridge, M.D.
Borsky, M.D.
100 Oak St., Wyandotte
Ring, Louise.....J. Woolfenden, M.D.
20055 Mack, Detroit 13
Rodones, Mary J.....E. J. O'Brien, M.D.
A. Tuttle, M.D., and Associates
307 David Whitney Bldg., Detroit 26
Rutila, Louise.....Homer Smathers, M.D.
14219 W. McNichols Rd., Detroit
Sager, Edna.....J. Shapiro, M.D.
14634 E. Seven Mile Rd., Detroit 5
Schneider, Loretta.....M. Hoffman, M.D.
1311 David Whitney Bldg., Detroit 26
Smith, Sarah.....E. Osius, M.D.
901 David Whitney Bldg., Detroit
Stark, Mary C.....Ben C. Ross, M.D.
4493 14th St., Detroit 8
Steckel, Mrs. Cora.....M. Brant, M.D.
N. Felfman, M.D.
11420 Mack, Detroit 14
Sper, Louise.....Wm. M. Tuttle, M.D.
1151 Taylor, Detroit 2
Stuart, Mrs. Laura.....J. L. Poulka, M.D.
Henry Ford Hospital, Detroit 2
Thompson, Mary.....Nathan Brooks, M.D.
1001 Kales Bldg., Detroit 26
Tompkins, Mrs. Ramona D.....M. J. Wiener, M.D.
804 Kales Bldg., Detroit 26
Todt, Claire.....J. P. Hubbard, M.D.
14620 E. Seven Mile Rd., Detroit 5
Trainor, Ruth F.....A. R. Hummel, M.D.
A. A. Ulmer, M.D.
8045 E. Jefferson Ave., Detroit 14
Voss, Loretta.....Ormond Geib, M.D.
National Bank Bldg., Rochester
Webb, Mrs. Mary E.....Joseph Rivkin, M.D.
44 South Gratiot Ave., Mt. Clemens
Whitcomb, Gwen.....Wm. S. Reveno, M.D.
968 Fisher Bldg., Detroit 2
Webster, Mrs. Sarah.....H. A. Sullivan, M.D.
H. C. Moritz, M.D.
1053 David Whitney Bldg., Detroit 26
Wolfe, Mary Rose.....Arch Walls, M.D.
17201 McNichols Rd., Detroit 34
Woody, Dorn.....R. J. Arrington, M.D.
7811 Oakland, Detroit 11
Zelle, Elizabeth.....I. Betuinick, M.D.
13701 W. Seven Mile Rd., Detroit

EATON COUNTY

Number of Members, 10

Cole, Mrs. Helen, R.N.....B. P. Brown, M.D.
339 S. Cochran, Charlotte
Cooper, Mrs. Sally.....R. E. Landick, M.D.
111 S. Cochran, Charlotte
Crandall, Mrs. Bess.....Joseph Riley, M.D.
201½ S. Cochran, Charlotte
Fuller, Mrs. Catherine, R.N.....G. L. DeLand, M.D.
121 S. Main St., Olivet
Jordon, Mrs. Mary.....Community Hospital
Eaton Rapids
Paine, Mrs. Ruth.....R. E. Landick, M.D.
111 S. Cochran, Charlotte
Robinson, Mrs. Lou.....G. L. DeLand, M.D.
121 S. Main St., Olivet
Sellers, Mrs. Shirley.....Joseph Riley, M.D.
201½ S. Cochran, Charlotte
Van Auker, Mrs. Mary.....A. H. Meinke, M.D.
Eaton Rapids
Wenger, Eileen.....Hayes Green Beach Hospital
Charlotte

GENESEE COUNTY

Number of Members, 54

Ames, Mrs. Thelma.....Robert Scott, M.D.
1215 Detroit, Flint
Attaway, Mrs. Elizabeth.....W. C. Band, M.D.
2763 Flushing Rd., Flint
Brink, Mrs. Bernice.....Hurley Hospital Surgery Board
Flint
Bradley, Mrs. Carolyn.....McLaren General Hospital
Flint
Brohn, Mrs. Teal.....W. Z. Rundles, M.D.
500 Grand Traverse, Flint
Carto, Mrs. Aili M.....T. Finkelstein, M.D.
H. L. Varney, M.D.
1415 Broadway, Flint
Coates, Ethel.....Associate
1902 N. Stevenson St., Flint
Cook, Mrs. Sandra.....R. Ragan, M.D.
R. Dykewicz, M.D.
2768 Flushing Rd., Flint
Davis, Lenore.....S. T. Flynn, M.D.
J. Rawlings, M.D.
300 Mott Foundation Bldg., Flint
Davis, Marilyn.....R. Anderson, M.D.
3002 Mason, Flint
Domine, Mrs. Lucille.....R. S. Van Horn, M.D.
1651 Detroit Rd., Flint
Elliott, Mrs. Selma.....W. Morrison, M.D.
205 Perry Rd., Grand Blanc
English, Mrs. Dorothy.....S. Sorkin, M.D.
718 Beach, Flint
Faris, Ann .....Associate
2644 Clio Road, Flint
Ford, Mrs. Lucille.....J. Schultz, M.D.
3327 Fleming Rd., Flint
Foster, Mrs. Maybelle.....Robert Hague, M.D.
210 E. Court St., Flint
Greenman, Mrs. May.....Jack Portney, M.D.
428 Stevens St., Flint 3
Haario, Mrs. Barbara.....L. Bateman, M.D.
1928 Lewis St., Flint 6
Hagerty, Katherine.....G. Anthony, M.D.
1016 Detroit St., Flint 4
Hatfield, Mrs. Martha.....R. Ettinger, M.D.
111 Walnut St., Fenton
Hewins, Mrs. Patricia.....R. L. Rapport, M.D.
715 Mott Foundation Bldg., Flint
Higgins, Mrs. Helen.....B. Farah, M.D.
J. Quin, M.D.
5003 N. Stevenson, Flint 5
Hunt, Mrs. Ardith.....R. Ragan, M.D.
R. Dykewicz, M.D.
2768 Flushing Rd., Flint
Johnson, Mrs. Ann.....W. Buchanan, M.D.
J. Martin, M.D.
238 Caroline St., Fenton
Johnson, Hanselle.....B. S. Farah, M.D.
215 Medical Arts Bldg., Flint
Kile, Mrs. Julia.....R. Michelson, M.D.
5001 N. Saginaw St., Flint
Kontyko, Margaret.....T. Finkelstein, M.D.
H. L. Varney, M.D.
1415 Broadway, Flint

Lande, Mrs. Grace.....L. Kaufman, M.D.
4002 N. Saginaw, Flint 5
Lundgren, Mrs. Ethel.....J. Manwaring, M.D.
1654 Seminole, Flint
Marran, Eileen.....J. Wentworth, M.D.
1653 Chevrolet Ave., Flint
Martin, Katherine.....J. Gromnons, M.D.
Durand
Milliken, Madelyn.....C. Richards, M.D.
213 Merser, Durand
Moore, Ruth.....S. Sorkin, M.D.
R. Willard, M.D.
M. Zeis, M.D.
718 Beach St., Flint 2
Neault, Mrs. Virginia.....F. Steinman, M.D.
517 Mott Foundation Bldg., Flint
Nelson, Dorothy.....W. Buchanan, M.D.
J. Martin, M.D.
238 Caroline St., Fenton
O'Berry, Mrs. Emily.....C. Hurd, M.D.
300 Robert St., Fenton
Pasco, Mrs. Irene.....C. Hurd, M.D.
300 Robert St., Fenton
Paxton, Dorothy.....M. Faehat, M.D.
505 E. Court, Flint
Pillen, Mrs. Joyce.....W. H. Morrison, M.D.
205 Perry Rd., Grand Blanc
Russell, Mrs. Geraldine.....B. A. Parliment, M.D.
1312 Mott Fdn. Bldg., Flint
Sadler, Mrs. Joyce.....F. Steinman, M.D.
C. R. Hennessy, M.D.
734 Mott Fdn. Bldg., Flint
Segroves, Wanda.....Joseph Guyon, M.D.
302 W. Pierson, Flint 5
Shroyer, Mrs. Ilah.....G. Rieth, M.D.
1402 Davison, Flint
Skellenger, Mrs. Bette.....McLaren General Hospital
Flint
Smith, Mrs. Dorothy.....L. Bateman, M.D.
1928 Lewis, Flint
Steinman, Mrs. Mildred.....W. Morrison, M.D.
205 Perry, Grand Blanc
Swarthout, Mrs. Juanita.....L. Shantz, M.D.
1239 Mott Bldg., Flint
Tarrant, Mrs. Norine.....C. K. Dettman, M.D.
Montrose
Taylor, Mrs. Mildred.....L. Kaufman, M.D.
4002 N. Saginaw St., Flint
Thomsom, Norma Jean.....M. Chambers, M.D.
839 Mott Bldg., Flint
Turnage, Mrs. Florence.....T. Finkelstein, M.D.
H. L. Varney, M.D.
1415 Broadway, Flint
Warda, Anna.....S. Osher, M.D.
218 E. Court, Flint
Wessendorf, Mrs. Jean.....F. V. Wade, M.D.
1303 Mott Fdn. Bldg., Flint
Yerkey, Mrs. Donna.....J. Benkert, M.D.
A. Benkert, M.D.
Grand Blanc

HOUGHTON-BARAGA-KEWEENAW COUNTIES

Number of Members, 8

Ahola, Mirian.....A. J. Janis, M.D.
208 Quincy St., Hancock
Brooks, Mrs. Aveline.....Mich. Dept. of Health
Houghton Branch, Houghton
Coon, Vivian.....Michigan State Health Department
Houghton Branch, Houghton
DeCaire, Mrs. Beatrice.....
Michigan State Health Department
Houghton Branch, Houghton
Heidi, Mary.....P. S. Sloan, M.D.
609 Sheldon Ave., Houghton
Pietila, Mrs. Julia.....F. W. Larson, M.D.
322 Sheldon Ave., Houghton
Warner, Mrs. Ann.....A. B. Aldrich, M.D.
505 Sheldon Ave., Houghton
Watson, Mrs. Jeanne (Mitchell).....A. B. Aldrich, M.D.
505 Sheldon Ave., Houghton

INGHAM COUNTY

Number of Members, 55

Ankney, Mrs. Elizabeth.....R. A. Burhans, M.D.
808 Mich. Nat'l. Tower, Lansing
Bedwin, Mrs. Florence.....D. J. Aiken, M.D.
Box 128, Okemos
Bennett, Mrs. Sally.....I. E. Silverman, M.D.
1009 E. Michigan Ave., Lansing
Block, Ruthjane.....R. W. Pomeroy, M.D.
609 N. Washington, Lansing
Boyd, Mrs. Geneva.....R. W. Pomeroy, M.D.
609 N. Washington, Lansing
Brandis, Mrs. Dorothy.....C. J. Stringen, M.D.
401 W. Greenlawn Ave., Lansing
Brooks, Audrey.....R. G. Combs, M.D.
Wm. H. Meade, M.D.
1023 E. Michigan Ave., Lansing
Bruner, Mrs. Jane.....W. O. Badgley, M.D.
T. C. Baker, M.D.
624 N. Capitol, Lansing
Dean, Mrs. Pauline.....C. Holland, M.D.
J. F. Scallin, M.D.
125 W. Saginaw, Lansing
Ecklesdafer, Marjorie.....Robert C. Bassett, M.D.
603 S. Capitol, Lansing
England, Mrs. Helen.....A. L. Stanley, M.D.
C. J. Stringer, M.D.
401 W. Greenlawn Ave., Lansing
Gaskin, Kathleen.....F. B. Heckert. M.D.
1105 Bank of Lansing Bldg., Lansing
Getz, Mrs. Zelma.....C. J. Stringer, M.D.
401 W. Greenlawn Ave., Lansing
Gilmore, Mrs. Maude F.....Ingham County Health Center
517 S. Grand Ave., Lansing
Grams, Carol.....D. M. Le Duc, M.D.
317 W. St. Joseph, Lansing
Henick, Mrs. Carolyn.....D. B. Hiscoe, M.D.
326 Townsend, Lansing
Hermes, Mrs. Dawn.....E. J. Hermes, M.D.
604 W. Willow, Lansing
Holmes, Marilyn J.....H. W. Harris, M.D.
609 N. Washington, Lansing
Hyde, Dorothy.....R. W. Pomeroy, M.D.
609 N. Washington, Lansing
Kessler, Mrs. Laura.....K. W. Toothaker, M.D.
930 N. Washington, Lansing
Kratzer, Patricia.....John Wellman, M.D.
301 Seymour, Lansing
Little, Mrs. Dorothy.....Paul Stimson, M.D.
515 S. Grand Ave., Lansing
Luebke, Mrs. Colleen.....R. A. Henry, M.D.
1515 W. Mt. Hope, Lansing
McAttee, Mrs. Helen.....S. H. Rutledge, M.D.
110 W. Hillsdale, Lansing
McLean, Mrs. Eleanor.....F. L. Bevez, M.D.
1515 W. Mt. Hope, Lansing
Mee, Mrs. Dorothy L.....H. W. Harris, M.D.
R. W. Pomeroy, M.D.
609 N. Washington Ave., Lansing

Miller, Mrs. Donna.....P. C. Spencer, M.D.
320 Townsend, Lansing
Miller, Doris.....E. E. Reynolds, M.D.
Williamston
Moore, Mrs. Georgia.....S. P. Fortino, M.D.
203 Bauch Bldg., Lansing
Munson, Marcia.....John Packer, M.D.
1023 E. Michigan Ave., Lansing
O'Berry, Edith L.....Edw. W. Sparrow Hospital
1215 E. Michigan Ave., Lansing
Ostrom, Barbara.....H. W. Harris, M.D.
R. W. Pomeroy, M.D.
609 N. Washington Ave., Lansing
Penner, Mrs. Clella.....H. W. Harris, M.D.
609 N. Washington Ave., Lansing
Peterson, Mrs. Eleanora.....John Wellman, M.D.
301 Seymour, Lansing
Preston, Mrs. Erleen.....E. W. Brubaker, M.D.
1406 Bank of Lansing Bldg., Lansing
Porterfield, Ruth.....P. C. Spencer, M.D.
320 Townsend, Lansing
Priest, Mrs. Pauline.....J. F. Sander, M.D.
4780 Okemos Rd., Okemos
Rasmussen, Eleanor.....K. J. Feeny, M.D.
1908 Mich. National Tower, Lansing
Rathbun, Mrs. Beatrice.....E. W. Brubaker, M.D.
1406 Bank of Lansing Bldg., Lansing
Regan, La Donna.....Edw. W. Sparrow Hospital
1215 E. Michigan Ave., Lansing
Reynolds, Mrs. Margaret.....D. M. Le Duc, M.D.
317 W. St. Joseph, Lansing
Richardson, Mrs. Beth.....S. Govons, M.D.
408 N. Capitol, Lansing
Rosekrans, Mrs. Marguerite.....E. C. Sundell, M.D.
1028 E. Saginaw, Lansing
Rouse, Bette R.....David Kahn, M.D.
401 American Bank & Trust Bldg., Lansing
Schaible, Joyce M.....W. O. Badgley, M.D.
T. C. Baker, M.D.
624 N. Capitol Ave., Lansing
Seyka, Mrs. Kay.....K. W. Toothaker, M.D.
930 N. Washington Ave., Lansing
Strahan, Mrs. Carol.....T. A. Lucas, M.D.
426 W. Ottawa, Lansing
Trethewey, Mrs. Elvi.....C. J. Stringer, M.D.
401 W. Greenlawn Ave., Lansing
Thornton, Violet.....L. R. McElmurry, M.D.
209 N. Walnut, Lansing
Turk, Mrs. Bernice.....Richard Bates, M.D.
1820 E. Michigan Ave., Lansing
Walker, Velma.....W. R. Klunzingen, M.D.
326 W. Ionia, Lansing
Waters, Irene.....W. O. Badgley, M.D.
624 N. Capitol Ave., Lansing
Woolhouse, Mrs. Marguerite.....Milton Shaw, M.D.
320 Townsend, Lansing
Wygant, Mrs. Catherine.....F. C. Trager, M.D.
320 Townsend, Lansing
Wyman, Mary.....C. J. Stringer, M.D.
A. L. Stanley, M.D.
401 W. Greenlawn Ave., Lansing

JACKSON COUNTY

Number of Members, 57

Bechtol, Mrs. Marjre.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson
Beemer, Mrs. Joette.....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson
Blair, Mrs. Connie (Urschalitz)....W. R. Stackable, M.D.
439 Wildwood Ave., Jackson
Blair, Marjorie.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson
Burdick, Mrs. Thelma.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson
Burke, Janice.....Ellis Adams, M.D.
517 Wildwood Ave., Jackson
Burke, Mrs. Lois.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson
Cass, Mrs. Evelyn.....J. A. Scott, M.D.
432 W. Michigan Ave., Jackson
Collins, Mrs. Aleta.....H. L. Oster, M.D.
1218 Greenwood Ave., Jackson
Collins, Mrs. Marion.....R. E. Medlar, M.D.
719 17th Street, Jackson
Desnoyer, Mrs. Elizabeth.....H. W. Porter, M.D.
505 Wildwood Ave., Jackson
Duffey, Mrs. Helen.....Ethon Stone, M.D.
721 17th Street, Jackson
Ferman, Mrs. Juanita.....G. L. Otis, M.D.
525 Wildwood Ave., Jackson
Garrison, Mrs. Vivian.....H. Dickman, M.D.
104 Oak Street, Hudson
Griffes, Wanetta.....Daniel Landron, M.D.
4633 Page Ave., Michigan Center
Guss, Mrs. Vivian.....A. O. Abraham, M.D.
Hudson
Habenicht, Mrs. Federica.....H. H. Habenicht, M.D.
910 Reynolds Bldg., Jackson
Hackenberg, Mrs. Dorothy.....L. Morelli, M.D.
401 W. Prospect Ave., Jackson
Hanson, Mrs. Frances.....W. A. Wickham, M.D.
435 Wildwood Ave., Jackson
Hoeg, Mrs. Ruth.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson
Hoover, Mrs. Twyla.....J. H. Ahronheim, M.D.
W. A. Foote Memorial Hospital, Jackson
Howard, Mrs. Onalee.....Ellis Adams, M.D.
517 Wildwood Ave., Jackson
Jeffrey, Mrs. Beth.....D. F. Kudner, M.D.
435 Wildwood Ave., Jackson
Joslin, Mrs. Laura.....R. Kobbs, M.D.
608 W. Michigan Ave., Jackson
Kaiser, Mrs. Bernice.....J. P. Karr, M.D.
502 W. Michigan Ave., Jackson
Kenny, Mari.....E. C. Lake, M.D.
612 First Street, Jackson
Kristoff, Mrs. Betty.....E. H. Corley, M.D.
1401 Reynolds Bldg., Jackson
Krolikowski, Mrs. Louise.....Ethon Stone, M.D.
721 17th Street, Jackson
Lacinski, Mrs. Nancy.....H. W. Porter, M.D.
(Brinkerhoff) 505 Wildwood Ave., Jackson
Lanagan, Mrs. Eileen.....J. W. Rice, M.D.
421 McNeal Street, Jackson
Lantis, Mrs. Pearl.....E. A. Thayer, M.D.
1104 National Bank Bldg., Jackson
Latham, Mrs. Pattie.....J. Bentley, M.D.
404 McNeal Street, Jackson
Licking, Mrs. Shirley.....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson
Miller, Mrs. Beatrice.....V. Papadopulos, M.D.
1111 E. Michigan Ave., Jackson
Moran, Mrs. Hazel.....B. Davenport, M.D.
Spring Arbor
Nanry, Mrs. Carolyn.....E. C. Lake, M.D.
612 First Street, Jackson
Parris, Mrs. Thelma.....A. C. Young, M.D.
118 Moore Street, Jackson
Paul, Anna.....H. Greenbaum, M.D.
1203 Greenwood Ave., Jackson

Phelps, Mrs. Evelyn.....J. E. Ludwick, M.D.
J. P. Ludwick, M.D.
237 W. Washington Ave., Jackson

Renner, Mrs. Ruth.....W. A. Foote Memorial Hospital
Jackson

Repasy, Mrs. Dolores.....E. K. Musson, M. D.
City Hall, Jackson

Roe, Nancy.....L. L. Olsen, M.D.
610 W. Michigan Ave., Jackson

Rowen, Mrs. M. Jane.....D. Smith, M.D.
500 W. Michigan Ave., Jackson

Rutan, Cecile D.....J. D. Van Schoick, M.D.
212 W. Main Street, Hanover

Seagert, Mrs. Vadah.....A. M. Sirhal, M.D.
Brooklyn

Shirley, Sally.....H. W. Porter, M.D.
505 Wildwood Ave., Jackson

Sleziek, Mrs. Louise.....J. W. Rice, M.D.
421 McNeal Street, Jackson

Smith, Mrs. Dorothy.....A. M. Shaeffer, M.D.
1615 Carlton Blvd., Jackson

Stabenow, Mrs. June.....B. Daly, M.D.
297 W. Michigan Ave., Jackson

Story, Marion.....W. A. Foote Memorial Hospital
Jackson

Todd, Mrs. Margaret.....S. Sugar, M.D.
509 Reynolds Bldg., Jackson

Vinson, Mrs. Pearl.....W. A. Foote Memorial Hospital
Jackson

Walborn, Mrs. Zeulah.....M. Hunt, M.D.
2543 Francis Street, Jackson

Walters, Janet.....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson

Whiting, Norma.....E. Torwick, M.D.
510 Dwight Bldg., Jackson

Williams, Mrs. Margaret.....G. C. Hardie, M.D.
724 W. Michigan Ave., Jackson

Wurster, Pauline.....H. W. Porter, M.D.
505 Wildwood Ave., Jackson

KALAMAZOO COUNTY

Number of Members, 118

Angel, Mrs. Lila.....R. K. Currier, M.D.
D. A. Haddock, Jr., M.D.
Berglund, M.D.
6646 Portage Street, Kalamazoo

Asbury, Mary Ann.....Donald May, M.D.
516 Whites Road, Kalamazoo

Ash, Mrs. Charlotte.....H. H. Stryker, M.D.
W. H. Howard, M.D.
R. E. DeLong, M.D.
Borgess Hospital, Gull Road, Kalamazoo

Baeurele, Mrs. Ardys.....James Loynd, M.D.
1324 S. Park St., Kalamazoo

Blackmore, Mrs. Violet.....Donald May, M.D.
516 Whites Road, Kalamazoo

Boes, Mrs. Ileane.....Eldean Betz, M.D.
1711 Merrill St., Kalamazoo

Boss, Mrs. Sharon.....Wm. Klerk, M.D.
914 S. Burdick St., Kalamazoo

Boysen, Mrs. Margaret.....F. L. Clement, M.D.
420 John St., Kalamazoo

Brady, Miss Patricia.....Borgess Hospital
Gull Road, Kalamazoo

Brainard, Mrs. Norine.....P. F. Cooper, M.D.
C. G. Callander, M.D.
220 Bronson Medical Center, Kalamazoo

Buiskool, Evelyn.....Roger Scholten, M.D.
219 Bronson Medical Center, Kalamazoo

Burd, Mrs. Verdie.....N. L. DeWitt, M.D.
803 Hanselman Bldg., Kalamazoo

Burkam, Mrs. Bethel.....Robert Warnke, M.D.
909 American National Bank, Kalamazoo

Chapman, Mrs. Phyllis.....J. C. Breneman, M.D.
25 Pearl St., Galesburg

Carroll, Mary Lee.....Marshall McDonald, M.D.
312 Bronson Medical Center, Kalamazoo

Chappell, Mrs. Marguerite.....M. Peelen, M.D.
K. M. VanderVelde, M.D.
320 Bronson Medical Center, Kalamazoo

Conway, Mrs. Marcella.....James Malone, M.D.
420 John St., Kalamazoo

Cramer, Mrs. Margaret.....L. R. Banner, M.D.
F. C. Ryan, M.D.
507 S. Burdick St., Kalamazoo

Davidson, Mrs. Alice.....Don Marshall, M.D.
Max A. Finton, M.D.
301 Bronson Medical Center, Kalamazoo

DeHoog, Mrs. Dora.....Joseph McCarty, M.D.
Box A, Kalamazoo State Hosp., Kalamazoo

Dines, Mrs. Janet.....A. J. Neeken, M.D.
1318 American Nat'l Bank Bldg., Kalamazoo

Drake, Mrs. Suzanne.....X-Ray Clinic
458 W. South St., Kalamazoo

Duyser, Mrs. Dorothy.....L. G. Banner, M.D.
F. C. Ryan, M.D.
507 S. Burdick St., Kalamazoo

Dziewicki, Walterina.....Robert Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo

Eddy, Mrs. Doris.....P. F. Cooper, M.D.
C. G. Callander, M.D.
220 Bronson Medical Center, Kalamazoo

Ellwood, Maxine.....R. B. Fast, M.D.
W. K. Locklin, M.D.
C. A. Gardner, M.D.
1410 American Nat'l Bank Bldg., Kalamazoo

Everhart, Mrs. Dorothy.....R. J. Hubbell, M.D.
R. N. Kilgore, M.D.
Boyd, M.D.
302 Bronson Medical Center, Kalamazoo

Farwell, Mrs. Dessie.....J. W. Kavanaugh, M.D.
1223 S. Park St., Kalamazoo

Foreman, Mrs. Donna.....R. J. Hubbell, M.D.
R. N. Kilgore, M.D.
Boyd, M.D.
302 Bronson Medical Center, Kalamazoo

Fox, Mrs. Frances.....Wm. G. Hoebeke, M.D.
Wm. G. Birch, M.D.
C. O. Peake, M.D.
212 Bronson Medical Center, Kalamazoo

Fox, Patricia.....Robert Burrell, M.D.
1711 Merrill St., Kalamazoo

Francisco, Mrs. Beverly.....P. F. Cooper, M.D.
C. G. Callander, M.D.
220 Bronson Medical Center, Kalamazoo

Frazier, Elsie.....X- Ray Clinic
458 W. South St., Kalamazoo

Goff, Mrs. Mildred.....S. E. Andrews, M.D.
F. C. Cretsinger, M.D.
224 E. Cedar St., Kalamazoo

Grabber, Mrs. Grace.....Loita Goodhue, M.D.
2503 W. Main St., Kalamazoo

Graham, Mrs. Shirley.....Doris Dahlstrom, M.D.
723 S. Westnedge Ave., Kalamazoo

Gray, Mrs. Gloria.....S. E. Andrews, M.D.
C. G. Cretsinger, M.D.
220 Bronson Medical Center, Kalamazoo

Green, Mrs. Jean.....Wallace Borgman, M.D.
420 John St., Kalamazoo

Haessig, Mrs. Gertrude.....M. Southworth, M.D.
Schoolcraft

Halbert, Mrs. Elizabeth.....C. A. Alexander, M.D.
118 W. North St., Kalamazoo

Harding, Phyllis.....R. Nicholson, M.D.
1711 Merrill St., Kalamazoo

Harrison, Mrs. Betty.....Donald Rockwell, M.D.
1418 American Nat'l Bank Bldg., Kalamazoo
Hays, Mrs. Louise.....Wm. Klerk, M.D.
914 S. Burdick St., Kalamazoo
Hayworth, Mrs. Lucille.....N. L. DeWitt, M.D.
803 Hanselman Bldg., Kalamazoo
Houtcamp, Mrs. Dorothy.....Ralph W. Shook, M.D.
611 American Nat'l Bank Bldg., Kalamazoo
Hurni, Mrs. Joyce.....Wm. G. Hoebeke, M.D.
Wm. G. Birch, M.D.
C. O. Peake, M.D.
212 Bronson Medical Center, Kalamazoo
Johnson, Vava.....F. J. Margolis, M.D.
2901 S. Westnedge Ave., Kalamazoo
Kenyon, Marjorie.....Prentice Clinical Lab.
463 Academy St., Kalamazoo
Kinkead, Christine.....A. B. Hodgman, M.D.
612 Douglas Ave., Kalamazoo
Kirchner, Janet.....Robert Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
Kline, Mrs. Virginia.....H. S. Heersma, M.D.
R. R. Dew, M.D.
1711 Merrill St., Kalamazoo
Koch, Mrs. Wilma.....Kalamazoo State Hospital
Box A, Kalamazoo
Laity, Helen.....Harold DePree, M.D.
216 Bronson Medical Center, Kalamazoo
Lanphear, Mrs. Virginia.....Richard Lemmer, M.D.
201 Bronson Medical Center, Kalamazoo
Lierman, Joan.....M. M. Conrad, M.D.
C. M. Hanson, M.D.
R. M. Cashen, M.D.
217 Bronson Medical Center, Kalamazoo
Lint, Mrs. Mary Ann.....Doyle Wilson, M.D.
1223 S. Park St., Kalamazoo
Louis, Mrs. Virginia.....Robert Warnke, M.D.
909 American Nat'l Bank Bldg., Kalamazoo
Maentz, Mrs. Frances.....R. Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
Mannion, Mrs. Florence.....Rex Moe, M.D.
1324 S. Park St., Kalamazoo
Marquardt, Phyllis.....S. E. Andrews, M.D.
F. C. Cretsinger, M.D.
224 E. Cedar St., Kalamazoo
Massey, Mrs. Barbara.....Harold Machin, M.D.
420 John St., Kalamazoo
MacPhail, Madeline.....R. Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
Monk, Betty Jo.....H. S. Heersma, M.D.
R. R. Dew, M.D.
1711 Merrill St., Kalamazoo
Mori, Mrs. Meribeth.....R. Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
McHugh, Mrs. Betty.....Wm. G. Hoebeke, M.D.
Wm. G. Birch, M.D.
C. O. Peake, M.D.
212 Bronson Medical Center, Kalamazoo
McMahan, Mrs. Dorothy.....C. A. Alexander, M.D.
118 W. North St., Kalamazoo
McMurrough, A. Louise.....Wm. Irwin, M.D.
805 Hanselman Bldg., Kalamazoo
McPherson, Mrs. Anna B.....Kalamazoo Nursing Council
102 Pratt Bldg., Kalamazoo
Nieborr, Mrs. Gertrude.....John Pool, M.D.
(VanderHorst) 736 E. Cork St., Kalamazoo
Niewoonder, Grace.....C. Schrier, M.D.
Box A, Kalamazoo State Hosp., Kalamazoo
Oggel, Mrs. Ruby.....Donald Rockwell, M.D.
1418 American Nat'l Bank Bldg., Kalamazoo
Peters, Elizabeth.....R. Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
Peters, Francetta.....Rex Moe, M.D.
1324 S. Park St., Kalamazoo
Peters, Teresa.....R. B. Fast, M.D.
W. R. Locklin, M.D.
C. A. Gardner, M.D.
1410 American Nat'l Bank Bldg., Kalamazoo
Phillips, Mrs. Sally.....Robert Ferguson, M.D.
1324 S. Park St., Kalamazoo
Phillips, Phyllis.....J. W. Peelen, M.D.
516 Whites Rd., Kalamazoo
Puschell, Lenora.....L. R. Banner, M.D.
F. C. Ryan, M.D.
507 S. Burdick St., Kalamazoo
Rabbers, Mrs. Frances.....J. D. Breneman, M.D.
25 Pearl St., Galesburg
Rathbun, Mrs. Ella.....M. McDonald, M.D.
312 Bronson Medical Center, Kalamazoo
Roach, Eileen.....Harold Machin, M.D.
420 John St., Kalamazoo
Root, Hazel.....M. Peelan, M.D.
K. M. Vander Velde, M.D.
320 Bronson Medical Center, Kalamazoo
Schanz, Mrs. Mary.....E. M. Williamson, M.D.
W. R. King, M.D.
M. L. Barry, M.D.
Everett, M.D.
315 Bronson Medical Center, Kalamazoo
Schumann, Helen.....Wm. Irwin, M.D.
805 Hanselman Bldg., Kalamazoo
Schuur, Mrs. Henrietta.....James Loynd, M.D.
1324 S. Park St., Kalamazoo
Scott, Mary.....P. S. Weadon, M.D.
319 Bronson Medical Center, Kalamazoo
Shaffer, Mrs. Jean.....Doris Dahlstrom, M.D.
723 S. Westnedge Ave., Kalamazoo
Smith, Mrs. Geraldine.....Prentice Clinical Lab.
463 Academy St., Kalamazoo
Smith, Mrs. Greta.....R. Nicholson, M.D.
1711 Merrill St., Kalamazoo
Smith, Mrs. Pauline.....E. F. Hersey, M.D.
516 Whites Rd., Kalamazoo
Stafinski, Mrs. Helen.....R. D. Currier, M.D.
D. A. Haddock, M.D.
Berglund, M.D.
6646 Portage St., Kalamazoo
Steinman, Ilo.....S. Delbert, M.D.
914 S. Burdick St., Kalamazoo
Stelma, Mrs. Amber.....Don Marshall, M.D.
Max A. Finton, M.D.
301 Bronson Medical Center, Kalamazoo
Stewart, Carol.....M. M. Conrad, M.D.
C. M. Hanson, M.D.
R. M. Cashen, M.D.
217 Bronson Medical Center, Kalamazoo
Stroms, Marilyn.....J. C. Breneman, M.D.
25 Pearl St., Galesburg
Stricklin, Katherine.....W. Herbert, M.D.
1223 S. Park St., Kalamazoo
Sullivan, Betty.....M. M. Conrad, M.D.
C. M. Hanson, M.D.
R. M. Cashen, M.D.
217 Bronson Medical Center, Kalamazoo
Sullivan, Mrs. Josephine.....Keith Bennett, M.D.
212 Bronson Medical Center, Kalamazoo
Trimmer, Mary.....Borgess Hospital
Gull Road, Kalamazoo
Vanderklop, Phyllis.....Associate Member
218 Fairview Ave., Kalamazoo
Vander Meer, Mrs. Winefred.....M. M. Conrad, M.D.
C. M. Hanson, M.D.
R. M. Cashen, M.D.
217 Bronson Medical Center, Kalamazoo
VanHorn, Mrs. Helen.....Don Marshall, M.D.
Max A. Finton, M.D.
301 Bronson Medical Center, Kalamazoo
Van Leuwen, Mrs. Virginia.....R. J. Hubbell, M.D.
R. N. Kilgore, M.D.
Boyd, M.D.
302 Bronson Medical Center, Kalamazoo
Vos, Kathryn.....X-Ray Clinic
458 W. South St., Kalamazoo
Wall, Mrs. Patricia.....R. D. Currier, M.D.
D. A. Haddock, M.D.
Berglund, M.D.
6646 Portage St., Kalamazoo

Warner, Mrs. Dorothy.....R. L. Dana, M.D.
M. D. Verhage, M.D.
228 W. Cedar St., Kalamazoo
Weston, Mrs. Nancy.....F. Harrell, M.D.
420 John St., Kalamazoo
White, Mrs. Emily.....L. R. Banner, M.D.
F. C. Ryan, M.D.
507 S. Burdick St., Kalamazoo
White, Nell.....R. Armstrong, M.D.
605 Hanselman Bldg., Kalamazoo
White, Mrs. Shirlee.....F. Harrell, M.D.
420 John St., Kalamazoo
Williams, Mrs. Barbara.....Kalamazoo Nursing Council
102 Pratt Bldg., Kalamazoo
Winship, Mrs. Charlotte.....James Malone, M.D.
420 John St., Kalamazoo
Wolf, Mrs. Marilyn.....R. J. Hubbell, M.D.
R. N. Kilgore, M.D.
Boyd, M.D.
302 Bronson Medical Center, Kalamazoo
Wolfe, Mrs. Elizabeth.....Roman Flunt, M.D.
Box A, Kalamazoo State Hosp., Kalamazoo
Wood, Mrs. Alice.....W. G. Hoebeke, M.D.
(Nee Brown) W. G. Birch, M.D.
C. O. Peake, M.D.
212 Bronson Medical Center, Kalamazoo
Woodman, Mrs. Harriet.....E. M. Williamson, M.D.
W. R. King, M.D.
(Rolph) W. R. King, M.D.
M. L. Barry, M.D.
315 Bronson Medical Center, Kalamazoo
Woodcock, Mrs. Parmelia.....M. Peelan, M.D.
K. M. Vander Velde, M.D.
320 Bronson Medical Center, Kalamazoo
Wykkel, Mrs. Emily.....Wm. Scott, M.D.
208 Bronson Medical Center, Kalamazoo

KENT COUNTY

Number of Members, 51

Barecki, Mrs. Irene.....Wm. Flinthof, M.D.
745 Fulton West, Grand Rapids
Barney, Mary Alixe.....A. B. Smith, M.D.
W. L. Johnson, M.D.
S. M. Oates, M.D.
6th Floor Metz Bldg., Grand Rapids
Benzin, Frances.....Eugene Sevesma, M.D.
1077 E. Leonard St., Grand Rapids
Berquist, Mrs. Evelyn.....G. E. Winter, M.D.
1967 Godfrey Ave. S.W., Grand Rapids
Billinger, Dorothy.....Keats Vining, M.D.
833 Lake Drive S.E., Grand Rapids
Bilski, Mrs. Sally.....R. H. Denham, M.D.
M. W. Shellman, M.D.
D. B. Smith, M.D.
54 College Ave., Grand Rapids
Boluyt, Marie.....Austin Lamberts, M.D.
68 Ransom Ave. N.E. Grand Rapids
Bos, Marilyn.....William Fuller, M.D.
833 Lake Drive S.E., Grand Rapids
Boyd, Barbara Jean.....L. S. Griffith, M.D.
50 College Ave. S.E., Grand Rapids
Brechting, Matilda.....C. P. Truog, M.D.
B. R. Van Zwalenburg, M.D.
2nd Floor, Metz Bldg., Grand Rapids
Burgess, Mrs. Lorraine.....C. T. Aitken, M.D.
J. A. MacDonell, M.D.
R. F. Lanstra, M.D.
R. W. Jarka, M.D.
50 College Ave. S.E., Grand Rapids
Burton, Mrs. Mable.....X- Ray Dept.,
Butterworth Hospital, Grand Rapids
Cridler, Virginia.....R. A. Rasmussen, M.D.
R. H. Meade, Jr., M.D.
C. E. Basinger, M.D.
1810 Wealthy St. S.E., Grand Rapids
DeGroat, Thelma.....Sunshine Hospital
700 Fuller N.E., Grand Rapids
DeNys, Joan C.....D. F. Waterman, M.D.
535 Greenwood S.E., Grand Rapids
Dertien, Jean.....H. P. Kooistra, M.D.
J. F. Wurz, M.D.
412 Medical Arts Bldg., Grand Rapids
Dikker, Virginia.....E. C. Thompson, M.D.
A. J. Hoffs, M.D.
522 Medical Arts Bldg., Grand Rapids
Eardley, Margaret M.....D. B. Hagerman, M.D.
203 Medical Arts Bldg., Grand Rapids
Friberg, Mrs. Muriel.....M. W. Dick, M.D.
L. F. Schnute, M.D.
M. K. Wyngarden, M.D.
1600 McKay Tower, Grand Rapids
Fry, Mrs. Avonell.....J. T. Boet, M.D.
2339 Wyoming, Grand Rapids
Griffin, Mrs. Florence.....W. Cayce, M.D.
J. G. Lukens, M.D.
Medical Arts Bldg., Grand Rapids
Haggai, Albertine R.....C. H. Snyder, M.D.
H. M. Andre, M.D.
H. S. Caukin, M.D.
500 Cherry S.E., Grand Rapids
Herron, Beatrice.....C. H. Frantz, M.D.
A. B. Swanson, M.D.
Blodgett Medical Bldg., Grand Rapids
Hoogenboom, Mrs. Catherine.....J. C. Foshee, M.D.
124 Fulton E., Grand Rapids
Horning, Mrs. Marion.....Joseph Whinery, M.D.
54 College Ave., Grand Rapids
House, Lois Ann.....G. De Maage, M.D.
143 Courtland St., Rockford
Hunt, Mrs. Leota.....C. B. Beeman, M.D.
N. L. Avery, Jr., M.D.
A. K. Hamp, M.D.
833 Lake Drive S.E., Grand Rapids
Jankowski, Esther.....F. M. Jameson, M.D.
D. S. MacIntyre, M.D.
833 Lake Drive S.E., Grand Rapids
Johnson, Esther.....C. E. Faber, M.D.
F. S. Gillett, M.D.
E. L. Fitzgerald, M.D.
54 College Ave., Grand Rapids
Juzapaitis, Mrs. Rose.....Grand Rapids Health Dept.
303 Ionia Ave. N.W., Grand Rapids
Kessler, Mrs. Virginia.....G. G. Stonehouse, M.D.
W. D. Dawson, M.D.
408 Medical Arts Bldg., Grand Rapids
Lafferty, Elma.....J. D. Flyn, M.D.
211 Medical Arts Bldg., Grand Rapids
Lowes, Blanche.....Donald Chandler, M.D.
719 Ashton Bldg., Grand Rapids
Meads, Ella May.....K. K. Vining, Jr., M.D.
833 Lake Drive S.E., Grand Rapids
Miller, Mrs. Carolyn.....H. Lieffers, M.D.
400 Medical Arts Bldg., Grand Rapids
Miller, Lynn Marie.....J. B. Wilkes, M.D.
1328 Madison S.E., Grand Rapids
Nienhuis, Gertrude.....Grand Rapids Health Dept.
303 Ionia Ave. N.W., Grand Rapids
Paine, Maud G.....C. H. Frantz, M.D.
A. B. Swanson, M.D.
Blodgett Medical Bldg., Grand Rapids
Robinson, Elizabeth.....Grand Rapids Health Dept.
303 Ionia Ave. N.W., Grand Rapids
Roper, Barbara.....C. H. Frantz, M.D.
A. B. Swanson, M.D.
Blodgett Medical Bldg., Grand Rapids
Scheiern, Marion.....W. Steffenson, M.D.
1810 Wealthy S.E., Grand Rapids

Sheets, Mrs. Eileen.....J. Lentini, M.D.
320 Metz Bldg., Grand Rapids
Siebers, Mrs. Mae.....J. C. Rigterink, M.D.
J. R. Brink, M.D.
50 College S.E., Grand Rapids
Skoglund, Mrs. Mae.....G. De Maage, M.D.
143 Courtland St., Rockford
Solomon, Lucille.....H. J. Damstra, M.D.
1553 Boston S.E., Grand Rapids
Sorensen, Elaine M.....C. H. Frantz, M.D.
Blodgett Medical Bldg., Grand Rapids
Stegenga, Marilyn A.....R. A. Rasmussen, M.D.
R. H. Meade, Jr., M.D.
C. E. Basinger, M.D.
1810 Wealthy S.E., Grand Rapids
Streeter, Mrs. Isabel.....G. De Maage, M.D.
143 Courtland St., Rockford
Thompson, Elaine.....J. P. Marsh, M.D.
124 Fulton St. S.E., Grand Rapids
Watson, Barbara.....Blodgett Memorial Hospital
1810 Wealthy St. S.E., Grand Rapids
White, Rosemary Cecilia.....C. H. Snyder, M.D.
H. M. Andre, M.D.
H. S. Caukin, M.D.
500 Cherry S.E., Grand Rapids

LENAWEE COUNTY

Number of Members, 19

Alberding, Mrs. Evelyn.....Heffron Clinic
231 Main St., Adrian
Aldrich, Beverly.....G. C. Wilson, M.D.
108 N. Jackson Rd., Clinton
Ashley, Saunders.....M. B. Wolf, M.D.
118 N. Winter St., Adrian
Bishop, Mrs. Iva.....R. D. Coak, M.D.
Ford Bldg., Tecumseh
Claxton, Mrs. Ethelyn.....W. T. Claxton, M.D.
Britton
Connors, Mrs. Sharon.....W. T. Claxton, M.D.
Britton
Davis, Donna.....John Burghuis, M.D.
174 E. Maumee St., Adrian
Dustin, Mrs. Ruth.....R. E. Dustin, M.D.
103 N. Brown St., Tecumseh
Hannula, Mrs. Pearl.....Xenophon Skufis, M.D.
123 Chestnut St., Adrian
Knisel, Margaret.....Howard Eddy, M.D.
Mill St. and North Main St., Adrian
Kopka, Phyllis.....R. D. Coak, M.D.
Ford Bldg., Tecumseh
Lidster, Mrs. Marcella.....W. T. Claxton, M.D.
Britton
Mahrle, Mrs. Bernice.....R. T. Hammel, M.D.
102 S. Pearl St., Tecumseh
Marks, Alma.....Howard Heffron, M.D.
231 N. Main St., Adrian
Marquis, Marjorie.....Heffron Clinic
231 N. Main St., Adrian
Mobley, Joan.....Howard Heffron, M.D.
231 N. Main St., Adrian
Russell, Mrs. Gertrude.....Bert Richey, M.D.
Manitou Beach
Sanderson, Mrs. Yvonne.....Heffron Clinic
231 N. Main St., Adrian
Thompson, Mrs. Marilyn.....Bert Richey, M.D.
Manitou Beach

MUSKEGON COUNTY

Number of Members, 45

Archer, Mrs. Mary Lillian.....Paul B. Medema, M.D.
Edwin W. Prentice, M.D.
1017 Sanford St., Muskegon
Anthony, Mrs. Jo.....I. J. Kleaveland, M.D.
1633 Peck St., Muskegon
Beckman, Carol.....A. E. Dasler, M.D.
1507 Peck St., Muskegon
Bell, Mrs. Charity.....R. Garrison, M.D.
124 W. Webster Ave., Muskegon
Bourdo, Jean.....R. J. Fles, M.D.
1715 Peck St., Muskegon
Berg, Mrs. Verla.....R. E. Bloom, M.D.
305 Liberty Life Bldg., Muskegon
Brock, Mrs. Anna Mae.....A. D. Engstrom, M.D.
123 W. Colby, Whitchall
Burk, Virginia.....J. G. K. Harvey, M.D.
1520 5th St., Muskegon
Collier, Mrs. Catherine.....W. H. Tyler, M.D.
1435 Peck St., Muskegon
Cummings, Mrs. Lois.....W. H. Tyler, M.D.
1435 Peck St., Muskegon
Daigle, Mary.....James K. Hill, M.D.
Lester C. Paterson, M.D.
1095 Third St., Muskegon
De Vries, Mary Lynne.....D. H. Giese, M.D.
204 Michigan Theatre Bldg., Muskegon
Dorman, Donna Faye.....Paul B. Medema, M.D.
Edwin W. Prentice, M.D.
204 Sanford St., Muskegon
Drewes, Mrs. Linda.....Louis La Fevre, M.D.
420 W. Western Ave., Muskegon
Flickema, Beverly.....R. V. August, M.D.
72 E. Broadway, Muskegon Hts
Flood, Mrs. Maxine.....P. S. Bradshaw, M.D.
1014 Jefferson St., Muskegon
Gauthier, Beverly.....R. A. Lowery, M.D.
2336 Peck St., Muskegon Hts.
Geffert, Mrs. Betty.....A. D. Engstrom, M.D.
L. M. Lapham, M.D.
123 W. Colby, Montague
Goudberg, Mrs. Hazel.....D. H. Giese, M.D.
204 Michigan Theatre Bldg., Muskegon
Hanson, Mrs. Betty Jane.....J. W. Barnes, M.D.
M. R. Smith, M.D.
8794 Spring St., Montague
Herbert, Mrs. Mae.....N. W. Scholle, M.D.
2500 Peck St., Muskegon Hts.
Hislop, Donna.....Leland E. Holly, M.D.
Arthur H. Joistad, M.D.
878 Second Street, Muskegon
Irwin, Mrs. Julia.....J. K. Hill, M.D.
L. C. Paterson, M.D.
1095 Third St., Muskegon
Johnson, Mrs. Olga N.....Leonard Price, M.D.
1282 Arthur St., Muskegon
Johnson, Mrs. Thelma.....William H. Bond, M.D.
1377 Peck St., Muskegon
Katt, Mrs. Clara.....P. E. Medema, M.D.
E. W. Prentice, M.D.
1017 Sanford St., Muskegon
Klinker, Mrs. Marjorie.....F. W. Graber, M.D.
235 Monroe Ave., Muskegon
Kokx, Aldonna Marie.....C. A. Vandervelde, M.D.
703 Hackley Union Nat'l. Bank, Muskegon
La Pres, Catherine.....H. C. Tellman, M.D.
706 Hackley Union Nat'l. Bank, Muskegon
Le Mieux, Carol.....J. H. Bultema, M.D.
304 Mich. Theatre Bldg., Muskegon

Longlois, Mrs. Shirley.....F. J. Stubart, M.D.
2416 Peck St., Muskegon Hts.
Lupien, Janice.....R. E. Bolthouse, M.D.
2416 Peck St., Muskegon Hts.
McKay, Mrs. Dorothea A.....F. J. Stubbart, M.D.
2416 Peck St., Muskegon Hts.
Murray, Mrs. Louis.....W. H. Bond, M.D.
1377 Peck St., Muskegon
Nielsen, Mrs. Lotte Lore.....L. E. Maire, M.D.
1633 Peck St., Muskegon
Nielsen, Mrs. Marie.....P. S. Bradshaw, M.D.
1014 Jefferson St., Muskegon
Olsen, L. Jane.....C.W.C. Medical Dept.
Henry St., Muskegon
Olsen, Sarah.....Frank Diskin, M.D.
309 Jackson Ave., Muskegon
Ortquist, Mrs. Dorothy Mae.....N. J. Ellis, M.D.
1891 Lakeshore Drive, Muskegon
Schaude, Mrs. Ruth.....A. F. Dasler, M.D.
1507 Peck St., Muskegon
Spaulding, Mrs. Loretta Anna.....J. K. Hill, M.D.
L. C. Paterson, M.D.
1095 Third St., Muskegon
Sterling, Mrs. Freda.....E. H. Heneveld, M.D.
F. Pettinga, M.D.
1603 Peck St., Muskegon
Talmadge, Mrs. Marie.....D. E. Maples, M.D.
402 Center Ave., N. Muskegon
Toepfner, Marilyn.....N. A. Fleishman, M.D.
1094 Jefferson, Muskegon

OAKLAND COUNTY

Number of Members, 42

Anderson, Mrs. Lucy.....A. J. Lowery, M.D.
1538 Union Lake Rd., Pontiac
Apley, Mrs. Blanche.....N. E. Durocher, M.D.
605 Pontiac State Bk. Bldg., Pontiac
Barnett, Mrs. Mareline.....St. Joseph Hospital
900 Woodward Ave., Pontiac
Bjorek, Beth.....R. E. Boucher, M.D.
617 Washington Sq. Bldg., Royal Oak
Bolinger, Mrs. Katherine.....St. Joseph Hospital
900 Woodward Ave., Pontiac
Bosard, Lee.....L. N. Merrill, M.D.
330 Washington Sq. Bldg., Royal Oak
Carpenter, Jane.....L. N. Merrill, M.D.
3207 N. Woodward, Royal Oak
Cary, Jeanette.....F. Bryant, M.D.
201 Washington Sq. Bldg., Royal Oak
Doyle, Mrs. Virginia.....J. L. Wiant, M.D.
222 E. Maple, Birmingham
Dworek, Elizabeth.....H. E. Lichtwardt, M.D.
606 N. Woodward, Birmingham
Elliott, Lillian.....F. J. McEvoy, M.D.
1715 Crooks Rd., Royal Oak
Forti, Alma.....D. L. Wake, M.D.
F. M. Sheridan, M.D.
W. W. Henderson, M.D.
931 N. Maple, Royal Oak
Gaskell, Orlou.....G. P. Raynale, M.D.
R. R. Wessells, M.D.
302 Wabeek Bldg., Birmingham
Hatch, Mrs. Nancy.....P. J. Laux, Jr., M.D.
3027 N. Woodward, Royal Oak
Hermoyian, Mrs. Pat.....F. Gaensbauer, M.D.
880 Woodward Ave., Pontiac
Hersey, Jane.....D. J. Barnes, M.D.
1126 South Woodward, Royal Oak
Hildebrand, Olive.....E. C. Rupp, Jr., M.D.
1775 E. 24 Mile, Birmingham
Holden, Rose.....R. R. Wessells, M.D.
G. P. Raynale, M.D.
302 Wabeek Bldg., Birmingham
Ibbotson, Florence.....C. E. Rupp, M.D.
P. E. Schmidt, M.D.
1775 E. 14 Mile Rd., Birmingham
Jensen, Genevieve.....T. Y. Watson, M.D.
R. R. Stolpman, M.D.
640 N. Woodward, Birmingham
Kennedy, Mrs. Mary.....R. E. Newman, M.D.
413 Woodward, Rochester
Kinney, Mr. Arthur.....St. Joseph Mercy Hospital
800 Woodward, Pontiac
Lotz, Mrs. Eleanor.....L. E. Dunn, M.D.
3924 W. 12 Mile Rd., Berkley
McIntosh, Dorothy.....W. J. Zimmerman, M.D.
258 Washington Sq. Bldg., Royal Oak
Mancour, Edith.....B. D. Bauers, M.D.
E. W. Bauers, M.D.
Wm. Bauers, M.D.
129 Bowers St., Clawson
Melbourne, Dorothea.....J. O. Esslinger, M.D.
Carpenter, M.D.
622 N. Woodward Ave., Birmingham
Montgomery, Ann.....G. P. Raynale, M.D.
R. R. Wessells, M.D.
302 Wabeek Bldg., Birmingham
Needham, Margaret.....N. J. Goode, M.D.
1117 S. Washington Sq., Royal Oak
Oakes, Elizabeth.....F. T. Reid, M.D.
610 E. Woodward Ave., Birmingham
Pinneo, Mrs. Thelma.....L. H. Spencer, M.D.
1219 S. Washington, Royal Oak
Polzin, Arlene.....J. I. Nosanchuk, M.D.
1216 Pontiac State Bank Bldg., Royal Oak
Ray, Virginia.....J. F. Pearce, M.D.
617 Washington Sq. Bldg., Royal Oak
Read, Emmeline.....V. P. Russell, M.D.
324 Washington Sq., Bldg., Royal Oak
Rehm, Helen J.....S. M. Lewis, M.D.
400 W. Nine Mile, Ferndale
Seeley, Elsie.....H. Schuneman, M.D.
23760 Woodward Ave., Pleasant Ridge
Slegt, Gertrude.....J. F. Pearce, M.D.
617 Washington Sq. Bldg., Royal Oak
Still, Margo.....L. N. Merrill, M.D.
330 Washington Sq. Bldg., Royal Oak
Uhnavy, Arlene.....P. J. Laux, Jr., M.D.
3027 N. Woodward Ave. Royal Oak
Weaver, Bertha.....T. Y. Watson, M.D.
R. R. Stolpman, M.D.
640 N. Woodward Ave., Royal Oak
Wilson, Clarice.....J. Esslinger, M.D.
622 Woodward, Birmingham
Wooster, Avis.....R. G. Ferris, M.D.
55 W. Maple, Birmingham
Worthley, Ruth.....J. R. Flick, M.D.
120 W. Second, Royal Oak

OTTAWA COUNTY

Number of Members, 14

Bareman, Eleanor.....Holland City Hospital
Michigan Ave., Holland
Blauwkamp, Joyce.....G. J. Kemme, M.D.
Rt. 3, Zeeland
Bolthouse, Julia.....F. W. De Young, M.D.
408 W. Exchange St., Spring Lake
Branyan, Mrs. Vivian.....K. N. Wells, M.D.
Spring Lake

Brazda, Mrs. Norma.....Grand Haven Hospital
Sheldon Rd., Grand Haven
Brouwer, Mrs. Ruth.....J. B. Kearney, M.D.
121 W. 24th St., Holland
Dirkse, Annette.....E. H. Beernink, M.D.
408 Fulton St., Grand Haven
Frietchen, Luella.....John Kitchel, M.D.
414 Franklin St., Grand Haven
Green, Mrs. Mildred.....Grand Haven Hospital
Sheldon Road, Grand Haven
Jones, Mrs. Helen.....Grand Haven Hospital
Sheldon Rd., Grand Haven
Miller, Mrs. Dorothy.....W. Rypkema, M.D.
228½ Washington St., Grand Haven
Van Der Velde, Otto Dr.....
33 W. 8th St., Holland
Wiegerink, Mrs. Mary.....Grand Haven Hospital
Sheldon Rd., Grand Haven
Winkels, Donna.....G. J. Kemme, M.D.
Rte. No. 3, Zeeland

SAGINAW COUNTY

Number of Members, 78

Adair, Mrs. Merna.....F. L. Markey, M.D.
J. P. Markey, M.D.
808 N. Michigan Ave., Saginaw
Allen, Mrs. Doris.....R. S. Ryan, M.D.
633 S. Washington, Saginaw
Allen, Twila.....A. C. Stander, M.D.
1411 Court, Saginaw
Bindon, Mrs. Ruth.....Wm. B. Kerr, M.D.
300 S. Michigan Ave., Saginaw
Bluem, Donna.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan, Saginaw
Bottke, Mrs. Doris.....D. Heilbrown, M.D.
1703 N. Michigan, Saginaw
Brin, Mrs. Beth.....J. E. Manning, M.D.
J. H. Gardner, M.D.
815 N. Michigan, Saginaw
Broadwater, Mrs. Gertrude.....Oliver Lohr, M.D.
537 Millard St., Saginaw
Buchholz, Elaine.....E. C. Galsterer, M.D.
124 S. Jefferson, Saginaw
Burns, Mrs. Dorothy.....Donald Durman, M.D.
John Goodsell, M.D.
408 S. Jefferson, Saginaw
Burns, Mrs. Laura.....St. Mary's Hospital
830 S. Jefferson, Saginaw
Bullis, Sharon.....V. V. Bass, M.D.
826 N. Michigan, Saginaw
Cook, Maxine.....St. Mary's Hospital
830 S. Jefferson, Saginaw
Colpean, Mrs. Patricia.....Associate
3882 N. Hartford, Saginaw
Crawford, Carolyn.....O. W. Lohr, M.D.
537 Millard, Saginaw
Cummins, Hallie.....W. W. Dickerson, M.D.
Caro State Hospital, Caro
Davemport, Mrs. Agnes.....P. R. Chisena, M.D.
Bridgeport
Deno, Patricia L.....L. C. Harvie, M.D.
405 Wiechman Bldg., Saginaw
Dietzel, Mrs. Alice.....O. A. Nelson, M.D.
120 N. Michigan, Saginaw
Dine, Mrs. Violet.....F. L. Markey, M.D.
J. P. Markey, M.D.
808 N. Michigan, Saginaw
Doran, Mrs. Dianne.....A. C. Stander, M.D.
1411 Court St., Saginaw
Dvorsek, Mrs. Violet.....Roy J. Gerard, M.D.
1500 Gratiot, Saginaw
Erickson, Marie.....Adult Mental Health Clinic
W. T. Hyslop, M.D.
1610 Gratiot, Saginaw
Ezop, Mrs. Laura.....Robert Lurie, M.D.
2525 S. Washington, Saginaw
Frisch, Elizabeth.....D. B. Ruskin, M.D.
321 Graebner Bldg., Saginaw
Fulton, Eleanor.....Oliver Lohr, M.D.
537 Millard, Saginaw
Gardyko, Mrs. Loretta.....Jules Lassignal, M.D.
2125 Bay St., Saginaw
Garlick, Mrs. Carol.....H. G. Slade, M.D.
1520 N. Michigan, Saginaw
Gaertner, Mrs. Audrey.....Robert Lurie, M.D.
2525 S. Washington, Saginaw
Golson, Bernadine.....J. W. James, M.D.
1021 W. Genesee, Saginaw
Hagarty, Mary.....H. J. Richter, M.D.
604 Second National Bank Bldg., Saginaw
Holland, Delores.....J. W. James, M.D.
1021 W. Genesee, Saginaw
Hamil, Mrs. Lorayne.....Donald Durman, M.D.
408 S. Jefferson, Saginaw
Hawkins, Helen V.....E. G. Hester, M.D.
2031 N. Michigan, Saginaw
Hawkins, June.....St. Mary's Hospital
803 S. Jefferson, Saginaw
Hesse, Mrs. Mary.....C. E. Toshack, M.D.
331 S. Jefferson, Saginaw
Hohisel, Mrs. Elsie.....City Health Dept.
Saginaw City Hall, Saginaw
Jones, Mrs. Joan.....R. C. Kolesar, M.D.
1005 Gratiot, Saginaw
La Londe, Mrs. Hilda.....O. A. Nelson, M. D.
120 N. Michigan, Saginaw
List, Mrs. Harriet.....H. Ballmer. M.D.
2715 Ashman, Midland
List, Mrs. Myrtle.....Wm. A. De Young, M.D.
830 S. Jefferson, Saginaw
Loth, Mrs. Anita.....H. A. Phillips, M.D.
420 First Savings & Loan Bldg., Saginaw
Luplow, Mrs. Lorine.....D. V. Sargent, M.D.
1703 N. Michigan, Saginaw
Mallak, Evelyn.....Oliver Lohr, M.D.
537 Millard, Saginaw
McDonald, Helen.....F. J. Busch, M.D.
1731 N. Michigan, Saginaw
Menthen, Mrs. Marion.....R. G. App, M.D.
520 W. Genesee, Saginaw
Miller, Madeline.....Harold Mayne, M.D.
Wm. McEwan, M.D.
120 N. Michigan, Saginaw
Mills, Mildred.....E. C. Galsterer, M.D.
124 S. Jefferson, Saginaw
Mutscheller, Meta.....Associate
1338 Mott St., Saginaw
Parent, Mrs. Helen M.....St. Mary's Hospital
803 S. Jefferson, Saginaw
Pavelich, Loretta.....Associate
3445 Binscarth, Saginaw
Plettenberg, Mrs. Mary.....G. L. Ackermann, M.D.
124 S. Jefferson, Saginaw
Porath, Mrs. Beverly.....Associate
7435 McCliggott Rd., Saginaw
Pray, Mrs. Zella.....Robert Bucklin, M.D.
1447 N. Harrison, Saginaw
Richards, Mrs. Marjorie.....Harold Mayne, M.D.
Wm. McEwen, M.D.
120 N. Michigan, Saginaw
Roberts, Mrs. Edna.....M. C. Sharp, M.D.
1803 N. Michigan, Saginaw
Rohn, Janice.....V. V. Bass, M.D.
826 N. Michigan, Saginaw
Savage, Janet.....R. M. Jarvi, M.D.
W. G. Mason, M.D.
R. M. Heavenrich, M.D.
1107 Gratiot, Saginaw
Seman, Dorothy.....St. Mary's Hospital
830 S. Jefferson, Saginaw

Scheanwald, Marjorie.....Donald Saegent, M.D.
1703 N. Michigan, Saginaw
Seabrook, Mrs. Muril.....Edward Kickham, M.D.
309 S. Jefferson, Saginaw
Smith, Mrs. Yvonne.....E. G. Hester, M.D.
2031 N. Michigan, Saginaw
Stein, Virginia.....Laurence Bruggers, M.D.
1703 N. Michigan, Saginaw
Strehl, Mrs. Rose Marie.....P. R. Chisena, M.D.
Bridgeport
Swibold, Mrs. Margaret.....Oliver Lohr, M.D.
537 Millard, Saginaw
Swift, Mrs. Marion.....H. E. Mayne, M.D.
W. G. McEwen, M.D.
305 Graebner Bldg., Saginaw
Tedhams, Mrs. Phyllis.....T. Kretschmer, M.D.
1252 N. Michigan, Saginaw
Thompson, Joan.....A. W. Farley, M.D.
1803 N. Michigan, Saginaw
Thompson, Margaret.....Stuart Yvtema, M.D.
331 S. Jefferson, Saginaw
Utermark, Mrs. Lois.....F. Brender, M.D.
117 Hubinger St., Frankenmuth
Vallier, Mrs. Lena.....Harold Mayne, M.D.
Wm. Ewer, M.D.
305 Graebner Bldg., Saginaw
Wahl, Harriet.....F. Busch, M.D.
1731 N. Michigan, Saginaw
Walther, Mrs. Josephine.....Associate
1921 Stark St., Saginaw
Weir, Mrs. Nona.....E. C. Galsterer, M.D.
124 S. Jefferson, Saginaw
Willert, Mrs. Dorothy.....M. J. Merry, M.D.
603 S. Jefferson, Saginaw
Witherspoon, Jean.....Arno Weiss, M.D.
3521 State, Saginaw
Wooten, Lucille.....Caro State Hospital
W. W. Dickerson
Caro
Worrall, Mrs. Inez.....Saginaw General Hospital
1447 Harrison, Saginaw

SAINT CLAIR COUNTY

Number of Members, 20

Bornais, Mrs. Kathleen.....J. A. Engels, M.D.
69311 Main St., Richmond
Bowers, Mrs. Katherine.....F. F. Ludwig, M.D.
917 7th St., Port Huron
Cameron, Mrs. Mary Jane.....W. A. Schaefer, M. D.
303 Mich. Nat'l. Bk. Bldg., Port Huron
Fagen, Mrs. Florence.....R. M. Lugg, M.D.
940 Military, Port Huron
Fogal, Mrs. Donna.....W. T. Davison, M.D.
1108 Military, Port Huron
Force, Eva Dawn.....Huron Hospital
Medical Records Dept.
1209 Willow St., Port Huron
Gillow, Mrs. Gretta.....R. S. Bailey, M.D.
400 Mich. Nat'l. Bk. Bldg., Port Huron
Gorte, Martha.....W. A. Schaefer, M.D.
303 Mich. Nat'l. Bk. Bldg., Port Huron
Hall, Mrs. Dollie Julia.....C. A. Ludwig, M.D.
916 7th St., Port Huron
Harris, Mrs. Rosemarie.....Huron Hospital
Medical Records Dept.
1209 Willow St., Port Huron
La Verne, Mrs. Rowena.....J. F. Beer, M.D.
104 N. Riverside, St. Clair
Patterson, Mrs. Una.....D. W. Patterson, M.D.
622 Haron Ave., Port Huron
Roberts, Millie.....Associate
2033 7th St., Port Huron
Revenko, Olga.....J. R. Gilmore, M.D.
317 Mich. Nat'l. Bk. Bldg., Port Huron
Stilwell, Mrs. Shirley.....J. A. Engels, M.D.
69311 Main St., Richmond
Suerwier, Donna.....J. D. Cantwell, M.D.
612 Peoples Bk. Bldg., Port Huron
Tepper, Mrs. Ina.....J. L. Sanderson, M.D.
515 Pine St., Port Huron
Vincent, Mrs. Beverly.....T. H. Bottomley, M.D.
E. W. Meredith, M.D.
1102 6th St., Port Huron
Watson, Mrs. Mary.....Geo. Van Rhea, M.D.
313 Peoples Bank Bldg., Port Huron
Willey, Mrs. Betty Lou.....W. T. Davison, M.D.
1108 Military, Port Huron

VAN BUREN COUNTY

Number of Members, 19

Brown, Mrs. Kathryn.....Paw Paw Medical Group
305 Oak St., Paw Paw
Canham, Mrs. Jessie.....Arthur Parks, M.D.
148 N. Main St., Lawton
Cornish, Mrs. Lucille.....Wm. R. Young, M.D.
109 Union St., Lawton
Dannison, Mrs. Cecile.....Bert Diephuis, M.D.
511 Huron St., South Haven
Huey, Mrs. Grace.....Charles Ten Houten, M.D.
215 N. Kalamazoo St., Paw Paw
Jewett, Mrs. Maxine.....Paw Paw Medical Group
305 Oak St., Paw Paw
Keeny, Mrs. Ruth.....E. Terwillinger, M.D.
326 Mich. Ave., South Haven
King, Mrs. Barbara.....Paw Paw Medical Group
305 Oak St., Paw Paw
Lamoreaux, Mrs. Meta.....F. J. Loomis, M.D.
304 Oak St., Paw Paw
Lennig, Mrs. Fredia.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven
Magyar, Mrs. Betty.....J. Cooper, M.D.
Bangor
Novey, Mrs. Ethel.....J. Itzen, M.D.
J. Kleber, M.D.
311 Center St., South Haven
Pear, Mrs. Vera.....J. Cooper, M.D.
314 Division St., Bangor
Schroyer, Lois.....J. Cooper, M.D.
314 Division St., Bangor
Stafford, Mrs. Kathleen.....Evan Copeland, M.D.
118 El Delware St., Decatur
Ten Houten, Mrs. Catherine..Charles Ten Houten, M.D.
215 N. Kalamazoo St., Paw Paw
Terrell, Marlene.....Paw Paw Medical Group
305 Oak St., Paw Paw
Walker, Mrs. Bess.....Arthur Parks, M.D.
148 N. Main St., Lawton
Warmbold, Mrs. Alberta.....Charles Ten Houten, M.D.
215 N. Kalamazoo St., Paw Paw

WASHTENAW COUNTY

Number of Members, 40

Arrick, Mrs. Marie.....B. C. Payne, M.D.
202 Mich. Theatre Bldg., Ann Arbor
Behnke, Mrs. Jean.....W. O. Umiker, M.D.
VA Hospital, Ann Arbor
Benz, Mrs. Elma L.....John M. Sheldon, M.D.
James A. McLean, M.D.
University Medical Center, Ann Arbor
Bryson, Mrs. Wilma R.....W. H. Kern, M.D.
2011 Middlebelt, Garden City
Clark, Mrs. Jessie.....F. B. Williamson, M.D.
319 W. Michigan, Ypsilanti
Cross, Mrs. Annie.....D. W. Martin, M.D.
207 Savings Bk. Bldg., Ypsilanti
Dawson, Mrs. Elizabeth.....K. D. Malcolm, M.D.
311 N. Ingalls, Ann Arbor
Densmore, Mrs. Winifred.....John M. Sheldon, M.D.
James A. McLean, M.D.
University Medical Center, Ann Arbor
Ehman, Mavis.....E. R. Harrell, M.D.
U. Hospital Out Pt. Bldg., Ann Arbor
Elliott, Mrs. Lillian.....F. Bruce Fralick, M.D.
University Medical Center, Ann Arbor
Fisher, Doris.....C. J. Westover, M.D.
982 W. Ann Arbor Trail, Plymouth
Gabachy, Mrs. Shirley.....L. E. Himler, M.D.
4438 Jackson Rd., Box 65, Ann Arbor
Gwinup, Mrs. Caroll.....N. L. Banghart, M.D.
1950 Manchester Rd., Ann Arbor
Hagermna, Mrs. Edythe.....G. W. Hagerman, M.D.
321 N. Ingalls St., Ann Arbor
Henderson, Mrs. Lucille.....H. A. Miller, M.D.
205 S. Davenport, Saline
Hildinger, Elinor.....H. L. Williams, M.D.
H. L. Banghart, M.D.
1959 Manchester Rd., Ann Arbor
Hughes, Helen Marie.....W. A. Barss, M.D.
525 W. Cross St., Ypsilanti
Kelly, Mrs. Mabel.....John M. Sheldon, M.D.
University Medical Center, Ann Arbor
Larmee, Suzanne Lou.....J. R. McWilliams, M.D.
408 First Nat'l. Bldg., Ann Arbor
Malloy, Mrs. Mildred.....N. F. Miller, M.D.
Woman's Hospital, Ann Arbor
Mayer, Mrs. Flora.....L. D. Henry, M.D.
706 W. Huron St., Ann Arbor
McCarn, Nelle.....H. K. Schock, M.D.
VA Hospital, Ann Arbor
Moore, Mrs. Margaret.....Wm. R. Rekshan, M.D.
2015 Manchester Rd., Ann Arbor
Mullaly, Mrs. Jane.....John Tupper, M.D.
U of M Health Service, Ann Arbor
Naylor, Mrs. Marion.....R. M. Nesbit, M.D.
University Medical Center, Ann Arbor
Olney, Mrs. Patricia.....J. L. Wilson, M.D.
University Hospital, Ann Arbor
Peck, Betty Ann.....C. J. Carroll, M.D.
T. H. McEachern, M.D.
1130 Hill St., Ann Arbor
Phinney, Dorothy.....R. K. Ratliff, M.D.
326 N. Ingalls, Ann Arbor
Polsdorfer, Mrs. Marcia.....R. C. Barlow, M.D.
St. Joseph Mercy Hospital, Ann Arbor
Ritchie, Dorothy.....C. J. Westover, M.D.
982 W. Ann Arbor Trail, Plymouth
Schilling, Mrs. Doris.....R. O. Dingman, M.D.
221 N. Ingalls, Ann Arbor
Schoenfield, Mrs. Kate.....F. A. Coller, M.D.
St. Joseph Mercy Hospital, Ann Arbor
Storti, Patricia Ann.....Arthur C. Curtis, M.D.
2181 Out Pt. Dept.
University of Michigan, Ann Arbor
Trimm, Mrs. Ruth E.....R. C. Schneider, M.D.
Rm. C5135, University Medical Center, Ann Arbor
Van Assche, Margaret.....J. J. Woods, M.D.
19 N. Washington St., Ypsilanti
Wallace, Mrs. Fae O.....J. J. Woods, M.D.
19 N. Washington St., Ypsilanti
Weatherwax, Marie.....F. B. Fralick, M.D.
Rm. 6159 Out Pt. Bldg.
University Medical Center, Ann Arbor
Zetterholm, Judith M.....Eleanor Smith, M.D.
202 Mich. Theatre Bldg., Ann Arbor

Michigan State Medical Society

Constitution

ARTICLE I—NAME

Section 1. The name of this organization shall be The Michigan State Medical Society.

ARTICLE II—COMPONENT COUNTY SOCIETIES

Section 1.—Component County Societies.

Component County Societies shall consist of those County Medical Societies which hold charters from this State Medical Society.

Sec. 2.—Geographical Scope.

Only one component County Society shall be chartered in any one county of the State; provided, however, when in the judgment of the House of Delegates it is deemed to be to the best interests of this Society, a charter may be granted to a component County Society comprising two or more counties.

ARTICLE III—PURPOSES

Section 1. To bring into one organization the Doctors of Medicine of this State of Michigan, and through it and other similar societies of other states to form and maintain the American Medical Association.

Sec. 2. To maintain a program of educational service to the public on matters of health and hygiene.

Sec. 3. To encourage among members of the medical profession the interchange of views on all phases of professional advancement and thus better to equip each member of the profession to serve society and promote the public health.

Sec. 4. To maintain a program of scientific education for the members of The Society keyed to the constantly developing discoveries in the field of medicine; and to foster, encourage and co-ordinate postgraduate facilities for the medical profession as a whole.

Sec. 5. To disseminate advances in medical research among the profession generally, by the issuance of scientific publications.

Sec. 6. To maintain and to advance the standards of medical practice in this State with respect to the highest concepts of ethics.

Sec. 7. To acquire and hold such real and personal property as may be necessary for the full and proper execution of the corporate purposes as detailed herein.

Sec. 8. To carry on such organization, functions and activities as are deemed necessary to accomplish effectively the above purposes; provided, however, that the Society shall engage in no activities that cannot be construed as relevant, incidental or necessary to its charitable, educational and scientific purposes.

ARTICLE IV—DIVISIONS

Section 1. This Society as a State unit of the American Medical Association, and as the State expression of the County Societies of Michigan, shall have three major divisions.

1. The Society as a whole, as when it meets in Annual Session.
2. The Scientific Assembly with its subordinate or related bodies.
3. The House of Delegates with its subordinate or related bodies.

ARTICLE V—THE SOCIETY AS A WHOLE

Section 1. The Society as a whole shall hold an Annual Session at such time and place and of such duration as the House of Delegates may determine. This power may be delegated to The Council or to the Executive Committee of The Council by the House of Delegates.

ARTICLE VI—SCIENTIFIC ASSEMBLY

Section 1. The Scientific Assembly of this Society is the convocation of its members for the presentation and discussion of subjects pertaining to the science and art of medicine, its allied specialties and the problems of public health conservation.

ARTICLE VII—HOUSE OF DELEGATES

Section 1. The House of Delegates shall be the legislative body of the Michigan State Medical Society and shall consist of Delegates elected by component County Societies and Delegates-at-Large, as prescribed by the Bylaws.

ARTICLE VIII—MEMBERS

Section 1. This Society shall consist of active members, honorary members, associate members, retired members, life members and military members, elected in accordance with the Bylaws.

ARTICLE IX—OFFICERS AND ELECTED REPRESENTATIVES

Section 1. The officers of this Society shall be a President; a President-Elect; a Treasurer; a Secretary; a Speaker and a Vice Speaker of The House of Delegates; and Councilors.

Sec. 2. The elected representatives of this Society shall be the Delegates and the Alternate Delegates to the House of Delegates of the American Medical Association.

ARTICLE X—THE COUNCIL

Section 1. The Council shall be the Executive Body of the Society. It shall consist of one Councilor from each Councilor District, the President, President-Elect, immediate Past President, Speaker and Vice Speaker of the House of Delegates with the Secretary and the Treasurer, the last two being elected by the foregoing. It shall have the custody and entire control of all funds and property of the Society and shall act for the Society as a Whole and for The House of Delegates between sessions.

Sec. 2. The Executive Committee of The Council shall consist of its Chairman, Vice Chairman, Chairman of the Finance Committee, Chairman of the County Societies Committee, Chairman of the Publication Committee, President, President-Elect, Secretary, Treasurer, Speaker and Vice Speaker of the House of Delegates. It shall act for the Society as a whole and for the House of Delegates between sessions of The Council, except that a policy established by the House of Delegates or by The Council shall not be changed.

ARTICLE XI—FUNDS AND EXPENSES

Section 1. Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contributions.

Sec. 2. Annual membership dues and assessments shall be fixed by the House of Delegates.

ARTICLE XII—AMENDMENTS

Section 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates seated at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published at least once during the year in THE JOURNAL of the Society, or sent officially to each component County Society at least two months before the meeting at which final action is to be taken.

Sec. 2. This Constitution or any amendment thereto shall become effective immediately upon its adoption.

Bylaws

CHAPTER 1—COMPONENT COUNTY SOCIETIES

Section 1. The charter of each component County Society shall require that each of the provisions of the Constitution and Bylaws of the Michigan State Medical Society, together with each amendment to either thereof, hereafter adopted, in so far as the same is applicable, shall be an integral part of the Constitution and Bylaws of the component County Society to which a charter is issued and shall in no way be inconsistent with the Constitution and Bylaws of the Michigan State Medical Society. Each charter shall be authorized by the House of Delegates and signed by the President and the Secretary of this Michigan State Medical Society.

Sec. 2. The House of Delegates is empowered to revoke the charter of any component County Society whenever it finds that such Society has materially breached any of the provisions of the Constitution or Bylaws of this State Society or has failed to function within the expressed spirit and purpose of this State Society to such an extent that revocation of charter is compatible with the best interests of this State Society. Petition for the revocation of charter of any component County Society may be filed with The Council by a Councilor of the district within which each Society is located, or by any three members of The Council of this State Society or by the President of this State Society. Such petition shall be in writing and set forth with reasonable particularity the matters complained of and upon which the petition is founded. A copy of such petition together with written notice of the time and place of hearing on the petition shall be served on the affected component County Society by registered mail, return receipt requested, not less than 60 days before the date of such hearing. The affected component County Society may, within 30 days after service upon it of copy of the petition, file with The Council by registered mail, return receipt requested, a written answer thereto. The Council shall afford the affected component County Society a fair hearing of the matters complained of and a suitable opportunity to present its defense. The component County Society may be represented by legal counsel. Written arguments may be filed on behalf of the affected component County Society and by the petitioner. Stenographic notes shall be made of the entire proceedings on such hearing and a complete record shall be prepared, which record shall consist of the petition, answer, testimony, exhibits, written arguments and other pertinent matter. The Council shall make its decision based on the records, setting forth in writing its finding of facts, conclusions and reasons therefor. If two-thirds of the members of The Council do not concur in the conclusion that the charter of the affected component County Society should be revoked, the petition shall be deemed dismissed and the proceedings ended. If two-thirds of the members of The Council concur in the conclusion that the charter of the affected component County Society should be revoked, the Chairman of The Council shall transmit to the House of Delegates a report, consisting of the decision of The Council with all records annexed, and shall serve a copy thereof on the affected component County Society. The House of Delegates shall at the next regular or special session thereof following the transmittal of such report, consider and take such action on the report as it may deem proper. In case the House of Delegates desires further proofs in relation to the issues involved, it may remand the matter to The Council for further hearing and report. The action of the House of Delegates on the report of The Council shall be the final decision with reference to the revocation of the charter of a component County Society. Provided, that the component County Society, if it feels aggrieved by the decision of the House of Delegates, may, within six months, appeal to the Judicial Council of the American Medical Association, whose opinion shall be final.

CHAPTER 2—REGULATION OF MEMBERSHIP

Section 1. Admission to membership of any component county society is not a matter of right, but one of privilege, to be accorded or withheld in the sole discretion of such society. Every component county society may determine the manner of electing its members and shall be the sole judge of the qualifications of applicants for membership thereof.

Sec. 2. A Doctor of Medicine whose principal location of practice is near a county line may hold his membership in that component County Society most convenient for him to attend, on permission of The Council of the Michigan State Medical Society.

Sec. 3. Each component County Society shall have general direction of the affairs of the profession in the county, and its influence shall be exerted constantly for bettering the scientific, the moral and material conditions of every Doctor of Medicine in the county; systematic effort shall be made by each member and by the component County Society as a whole to increase the membership until it embraces every eligible Doctor of Medicine in the county.

Sec. 4. The Secretary of each component County Society shall keep a roster of its members and if practicable a list of non-affiliated Doctors of Medicine in the county, and other Doctors of Medicine, such as commissioned officers of the Navy, Army, and Public Health Service, in which shall be shown the full name, the address, the college and date of graduation, the date of license to practice in this State, and such other information as may be deemed necessary.

Sec. 5. Each member of a component County Society, who is in good standing, shall be privileged to attend each meeting and take part in all the proceedings and shall be eligible to any office within the gift of the Society except as otherwise provided.

CHAPTER 3—ARREARS IN DUES

Section 1. Any member in arrears for dues in the amount for one year may regain membership by paying up all back dues. Any member in arrears for more than one year may regain membership by paying all back dues or by being elected again to membership, at the option of the Component County Society.

Sec. 2. For the purpose of determining the dues for new members only, the fiscal year of the Michigan State Medical Society shall be divided into four three-month periods. New members shall pay adjusted annual dues and assessments for the unexpired quarterly periods of that year. Such new members shall not be entitled to membership benefits until their election to membership has been duly reported to the Secretary of the State Society and such benefits shall not cover any period prior to their becoming members in good standing.

CHAPTER 4—TRANSFER OF MEMBERSHIP

Section 1. Transfer of membership from one component County Society to another, occasioned by a change in location, shall be effectuated in the following manner: The member who wishes such transfer shall make application to the County Society which he wishes to join, and tendering payment of dues for the remainder of the current year, calculated to the nearest quarter.

Sec. 2. The Secretary of the component County Society to which application is made shall request certification of standing from the component County Society in which membership is held. Upon receiving such request, The Secretary of the latter society shall supply certification of good standing, provided the following requirements have been met:

(a) All component County Society dues and assessments shall have been paid for the calendar year previous to the year in which application for transfer is made.

(b) Full State Society dues and assessments shall have been paid for the year in which application for transfer is made.

(c) Component County Society dues and assessments shall have been paid to cover that portion of the year in which application for transfer is made, the time being calculated to the nearest quarter.

(d) The member shall not be under suspension or facing charges of unethical conduct.

Section 3. (a) In case the component County Society dues have been paid in full for the year, and certification of good standing is being issued, the Secretary of that component County Society shall refund component County Society dues represented by the unexpired portion of the year, calculated to the nearest quarter.

(b) Upon receipt of certification of good standing, and favorable action by the component County Society to which application has been made, the transfer of membership shall be in effect.

Sec. 4. Resignation for transfer of membership to another State Society shall be effectuated in the following manner:

Any member in good standing, not facing charges of unethical conduct, whose State and component County Society dues and assessments are not in arrears, and who has moved his principal location to another State, may tender his resignation, which shall be effective at the beginning of the next quarter. Such resignation shall be transmitted to the Secretary of the Michigan State Medical Society, who shall give the departing member certification of good standing.

Provided the portion of the calendar year following such resignation is not less than one-quarter, the Secretaries of the State and component County Societies shall refund any dues and assessments already paid for the remainder of the year, calculated to the nearest quarter.

CHAPTER 5—MEMBERSHIP AND CLASSIFICATION OF MEMBERSHIP

Section 1. Active Member—Active Members shall comprise all the active members of component County Societies. To be eligible for active membership in any component County Society, a Doctor of Medicine must hold an unrevoked license to practice medicine, surgery and midwifery by authority of the Michigan State Board of Registration in Medicine, and comply with all other provisions of this Constitution and Bylaws.

Sec. 2. Honorary Member—Component County Societies may elect as an Honorary Member any person distinguished for his services or attainments in medicine or the allied sciences, or who has rendered other services of unusual value to organized medicine or the medical profession. Upon recommendation of a component County Society, the House of Delegates may elect such a person as Honorary Member of the State Society. An Honorary Member shall pay no dues to the State Society and shall be without right to vote or hold office in either component County or State Society.

Sec. 3. Associate Member—Component County Societies may elect as an Associate Member:

(a) Any person not a member of the profession but engaged in scientific or professional pursuits whose principles and ethics are consonant with those of this State Society.

(b) An intern serving the first year in any approved hospital, an intern of longer standing, a resident physician in training, and a teaching fellow not engaged in private practice, but not after six years from the receipt of first medical degree (M.D. or M.B.); provided his training has not been interrupted by exigencies of War Service or by totally incapacitating illness. Such intern, resident or teaching fellow may become an Associate Member of the Michigan State Medical Society without action of the House of Delegates provided he has been certified to the Michigan State Medical Society through formal application to the Michigan State Medical Society Secretary by his component County Medical Society.

(c) A Doctor of Medicine, resident of the State of Michigan, for the period of time he is in active Military Service of the United States previous to his engaging in active practice.

(d) A Doctor of Medicine not engaging in any phase of medical practice.

(e) A commissioned medical officer of the United States Army, Navy, Public Health Service or physician employed by the Veterans Administration on duty in this State, who is not engaged in private practice of medicine, not to exceed two years.

(f) An Active Member, by transfer, for the period of time he is temporarily out of active practice on account of protracted illness, provided his dues are paid for the year previous to the onset of illness.

(g) An Active Member, by transfer, for the period of one year while he is temporarily out of practice on account of postgraduate medical studies, provided his membership dues are paid to the end of the preceding calendar year. This may be renewed upon petition to The Council at its discretion.

Upon recommendation of a component County Society, the House of Delegates may elect such a person as an Associate Member of this State Society. An As-

sociate Member shall not pay dues to this State Society and shall not have the right to vote, nor hold office in either component County or State Society. Component County Societies may require any Associate Member to pay certain local dues, out of which THE JOURNAL of the Michigan State Medical Society subscription is to be paid to the State Society for which each such Associate Member shall receive THE JOURNAL of the Michigan State Medical Society.

Sec. 4. Retired Member—A member who has maintained membership in a component County Society of this State Society for a period of ten or more years, and having retired from practice, may be transferred to the retired member's roster, provided his membership dues are paid to the end of the preceding calendar year. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine. He shall have the right to vote and hold office.

Sec. 5. Non-Resident Member—Component County Societies may elect as a Non-Resident Member any Doctor of Medicine residing and practicing outside of The County who is a member in good standing of his own component County Society. A Non-Resident Member shall not have the right to vote or hold office.

Sec. 6. Life Member—A Doctor of Medicine who has been a member of the Michigan State Medical Society for a minimum of five years and who has attained the age of seventy years or has been in constituent state society of the American Medical Association with dues paid for the previous calendar year may, upon his application, and recommendation of his component County Society, be transferred to the Life Members' Roster. He shall have the right to vote and hold office but shall pay no dues to the State Society. Requests for such transfer shall be accompanied by certification of the Secretary of the State Society as to years of membership in good standing. He shall be entitled to receive THE JOURNAL of the Michigan State Medical Society at such rates as The Council may determine.

Sec. 7 Military Members. Any active member in good standing who serves on active duty in the military forces of the United States during a war or similar national emergency may be transferred to the Military Membership roster for the period of time he is in Service. A Military Member shall not be required to pay state dues and assessments during the period of his Service and for the balance of the year in which he is separated from Military Service provided that this remission of post-service dues and assessments shall not be less than six months, or during the years he may be totally disabled immediately following such duty.

Sec. 8. For Retired, or Life Membership, the Component County Society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an Annual Session of The House of Delegates. Requests for transfer shall be accompanied by certification of the Secretary of the State Society, as to years of practice and years of membership in good standing. Transfers shall be by election in the House of Delegates.

Sec. 9. Any change in membership status shall be effected by resolution presented in triplicate before the annual session of the House of Delegates after previous certification by the secretaries of the county and state societies.

CHAPTER 6—CONDUCT AND DISCIPLINE OF MEMBERS

Sec. 1. *Standards of Conduct.* It is the duty of every member of this society and each of its component county societies to conduct himself both professionally and personally in conformity with the high standards imposed on doctors of medicine as a condition of continued membership therein. Such standards include, but are not limited to, the Principles of Medical Ethics which have been and may be from time to time hereafter adopted by the American Medical Association and as interpreted by the Judicial Council thereof.

Sec. 2. *Grounds for Discipline.* The conduct of a member of this or any of its component county societies which is contrary to the standards prescribed in this chapter shall be ground for discipline, whether or not the act or omission occurred in the course of a physician-patient relationship. Without limitation of the foregoing, any of the following shall also be ground for discipline:

(a) Unprofessional and dishonest conduct as defined by Act 237 of Michigan Public Acts of 1899, as amended.

(b) Conviction of a felony under the laws of any state or of the United States of America.

(c) Revocation or suspension of license to practice medicine.

(d) Violation or disregard of the constitution, by-laws, principles, rules, regulations or orders of this society, or of the member's component county society, or of the American Medical Association.

(e) Defaming or otherwise unjustly reflecting on the integrity, character or professional performance of a fellow member.

(f) Any conduct which is prejudicial to or tends to expose the medical profession or this society or a component county society to contempt or reproach, or which is in anywise contrary to ethics, honesty or good morals.

Sec. 3. *Discipline-Definitions and Purpose.* Discipline as used in this chapter shall include reprimand, suspension and expulsion. Any such discipline is not punishment for wrongdoing but is intended solely as a measure necessary to maintain the dignity, integrity, purposes and high principles of this society and of its component county societies.

Sec. 4. *Authority to Discipline.* A component county society may discipline any of its members on any of the grounds and in the manner set forth in this chapter; provided, that every member of this society and of any component county society against whom disciplinary action is proposed or taken shall be accorded the benefit of the procedures in this chapter prescribed, any provisions of the constitution or by-laws of any component county society to the contrary notwithstanding. The expulsion or suspension of any member from a component county society shall be subject, however, to the right of appeal to and review by The Council of the Michigan State Medical Society and the Judicial Council of the American Medical Association as hereinafter provided. Any component county society which has more than one hundred fifty active members may by appropriate provisions contained in its constitution or by-laws delegate its authority and power to discipline any of its members to the governing board of such society, in which event, all of the functions, duties and powers of a component county society as set forth in this chapter shall be exercised and carried out by such governing boards in like manner and on the same conditions as prescribed for a component county society. Unless otherwise specifically provided by the constitution or by-laws of such component society, any order of expulsion or suspension made by such governing board shall be subject to the approval of the component society in the same manner as may be provided for the approval of any other report of such governing board.

Sec. 5. *Ethics Committee.* Every component county society shall have a standing committee designated the

Ethics Committee, charged with duties and powers concerning the maintenance of standards of conduct and discipline of members, including the duties and powers specifically set forth in this chapter. Whenever any matter of alleged misconduct is referred to an ethics committee, such committee shall have the right to conduct investigations and hearings thereon, both informal and formal, and to make findings of fact and recommendations for discipline.

Sec. 6. *Request for Investigations.* Disciplinary measures shall be inititated by a request of an active member or committee of the society for the investigation of misconduct alleged to have been committed by a member of any component county society. All such requests shall be in writing, signed by one or more active members of the same component county society, filed in duplicate with the component county society, and as soon as may be shall be referred to the ethics commitee of such society. Each request shall contain a brief statement of the details of each act of alleged misconduct and the approximate time and place thereof. Before any such request and statement shall be considered by any such ethics committee, a copy thereof shall be mailed to the respondent at his last known address by registered or certified mail. It shall be the duty of the respondent, within fifteen days after the receipt of such copy, to make a full and fair disclosure in writing of all material facts and circumstances pertaining to his conduct in relation to the matters set forth in such statement. Such written disclosure shall be mailed to the secretary of the component county society by registered or certified mail. The deliberate failure to make such disclosure or any knowing misrepresentation or concealment of any such facts or circumstances by the respondent shall be ground for discipline.

Sec. 7. *Investigations-Reprimand-Dismissal.* The ethics committee shall make an informal investigation of the matters set forth in any such request and statement. On the conclusion of such investigation, the results thereof shall be informally considered by the committee at a meeting thereof. It shall be the duty of the respondent to attend such meeting on request, and to answer fully and fairly all questions pertaining to his conduct that may be put to him by any member of the committee. If the ethics committee decides that there are no grounds for discipline, the committee may authorize the dismissal of the matter. If, in the judgment of the committee, the material facts disclosed by the investigation are true and are sufficient to warrant only a reprimand, the ethics committee may forthwith administer such reprimand without a formal complaint, unless a formal hearing is demanded by the respondent. It shall be the duty of the ethics committee to report such dismissal or reprimand in writing to the component county society, together with the reasons thereof.

Sec. 8. *Formal Complaint and Notice of Hearing.* If the ethics committee finds there is reasonable cause to believe that the respondent is guilty of misconduct warranting suspension or expulsion from membership, or if the respondent demands a formal hearing, a formal complaint setting forth the facts of the alleged misconduct shall be prepared by the ethics committee and subscribed by the chairman or vice-chairman thereof. A copy of such complaint shall be filed with the component county society. Thereupon, it shall be the duty of the ethics committee or its chairman to fix the time and place for a formal hearing thereon. A written notice of such hearing, together with a copy of the formal complaint, shall be served on the respondent by registered or certified mail not less than thirty days before the date of such hearing. The notice of hearing may be signed on behalf of the committee by its chairman or any member thereof. The giving of such notice shall be conclusive evidence of the finding of reasonable cause to believe that the respondent is guilty of the alleged misconduct.

Sec. 9. *Answer and Formal Hearing.* It shall be the duty of the respondent to file an answer to the formal complaint. Such answer shall be in writing, signed by the respondent, and filed with the ethics committee within fifteen days after service of the copy of formal complaint. The answer shall admit or deny each material allegation contained in the complaint, and shall set forth any special defenses which the respondent claims to have. If the answer is not filed within the time hereby limited, the complaint may be taken as confessed. It shall be the duty of the respondent to appear before the ethics committee in person at the time and place specified in such notice. At such formal hearing, it shall be the duty of the respondent to answer fully and fairly all questions pertaining to his conduct which may be put to him by any member of the committee of the component county society. Formal hearings shall be conducted fairly, but not necessarily in accordance with all rules governing court trials. A stenographic record shall be made of the proceedings at such hearing.

Sec. 10. *Findings and Report.* If upon formal hearing the ethics committee finds that the charges of misconduct are not established by a preponderance of the evidence, the committee shall dismiss the complaint and shall so report to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant discipline by way of a reprimand, the committee shall administer such reprimand, and shall make a written report thereof, together with its findings of fact, to the component county society. If the committee finds that the charges of misconduct or any of them are established by a preponderance of evidence and are such as to warrant suspension or expulsion from membership by action of the component county society, the committee shall make a written report of the proceedings had before the committee, and shall include in such report a certified transcript of the evidence, including copies of all documents taken in proof, a summary statement of all previous misconducts for which the respondent has been disciplined, and the committee's findings of fact and recommendations for discipline. Every such report shall be signed by not fewer than a majority of the members of the ethics committee, and shall be filed with the component county society.

Sec. 11. *Action by Society.* Following the filing of any such report of an ethics committee recommending suspension or expulsion, the component county society shall, at a regular meeting thereof, or at a special meeting called for such purpose, consider and act upon the report and recommendation of the ethics committee. Suspension or expulsion from membership shall require the affirmative vote of not less than two-thirds of members present at any such meeting and entitled to vote thereat, but not including the respondent, who shall have no right to vote on the question. If any measure for discipline is adopted by a component county society, an appropriate order in accordance therewith shall be signed by the president and secretary of such society and a copy thereof served on the respondent and on the Michigan State Medical Society.

Sec. 12. *Action on Report—Additional Testimony.* Whenever an ethics committee files a report with its component county society recommending suspension or expulsion as herein provided, the respondent shall be served with a copy of the committee's findings of fact and recommendations so filed, not less than twenty days before the meeting of the component county society at which such recommendations are to be considered and acted on, together with a notice of the time and place of such meeting. The respondent may thereupon file with the society not less than ten days before such meeting reasons in writing why the recommendations of the ethics committee should not be adopted. The

respondent may also at such meeting appear in person and offer any further reasons why he should not be suspended or expelled from membership; provided, however, that at such meeting no testimony as to any matter of misconduct shall be taken. If it is decided at such meeting that the interests of justice require additional testimony to be taken, the matter shall be re-referred to the ethics committee for such purpose. In such event the ethics committee shall cause such additional testimony to be taken promptly, and shall make a supplemental report thereon, including findings of fact and recommendations based thereon, and shall file the same, together with a certified transcript of such additional testimony with the component county society. A copy of the findings of fact and recommendations contained in the supplemental report shall be served on the respondent as required in the case of an original report, and thereafter the same procedures shall be followed as in this section provided in relation to an original report.

Sec. 13. *Finality and Effectiveness of Order.* No order of suspension or expulsion from membership shall be final or effective until the respondent shall have been given the opportunity to exhaust his remedy of appeal and review in accordance with the provisions of this chapter.

Sec. 14. *Appeal Procedure.* Any member deeming himself aggrieved by an order of suspension or expulsion may appeal to The Council of the Michigan State Medical Society. Notice of such appeal shall be in writing, signed by the appellant and shall set forth specific reasons for his appeal. The notice shall be served on The Council of the Michigan State Medical Society and on the appellant's component county society by registered or certified mail, addressed to the respective secretaries thereof. Unless notice of appeal is so served within fifteen days following the service on the member of a copy of the order of the suspension or expulsion as herein above provided, such member's right of appeal and review shall be conclusively treated as having been waived, and the order of suspension or expulsion shall thereupon become final and effective. On receiving notice of appeal, the component county society shall forward to The Council of the Michigan State Medical Society the complete record of the matter, including copies of the order appealed from, all reports of the ethics committee, formal complaint, answer, transcript of testimony, exhibits and all other pertinent writings and data on which the order of suspension or expulsion was based. The Council shall thereupon transmit such record, together with notice of appeal, to the Committee on Ethics of the Michigan State Medical Society for consideration, study and report thereon. The Committee on Ethics shall promptly study and review such record on appeal and may request the component county society or the apellant to furnish such further information in writing as the committee deems necessary for the proper and full review of the matter. Written arguments may be filed with the Committee on Ethics by the component county society and the appellant within thirty days following notice of appeal. Upon conclusion of its study and review of the record, the Committee on Ethics shall make a report in writing to The Council of the Michigan State Medical Society, and shall include in such report all its findings concerning the record and the merits of the appeal, and its recommendations in relation thereto. The Council shall after filing of such report review the record on appeal, written arguments and recommendations of the Committee on Ethics and decide by a majority vote to affirm, modify or reverse the order of expulsion or suspension appealed from, or remand the matter for further action by the component county society. A copy of such decision shall be promptly served on the appropriate component county society and on the appellant by registered or certified mail. Unless within twenty days after service on them of a copy of such decision the component county society or the appellant shall take an appeal to the Judicial Council of the American Medical Association, the right to such further appeal and review will be conclusively treated as having been waived, and the decision of The Council of the Michigan State Medical Society shall be final and effective.

Sec. 15. *Appeal to Judicial Council of American Medical Association.* The appellant, if he was a member in good standing of the American Medical Association at the date of his alleged misconduct, may take a final appeal from the decision of The Council of the Michigan State Medical Society to the Judicial Council of the American Medical Association.

Sec. 16. *Exception to Procedures.* Any member of a component county society whose license to practice medicine shall have been revoked or suspended, or who shall have been convicted of a felony in any state or federal court may be summarily expelled from his component county society without benefit of or resort to the procedures prescribed in this chapter. In recognition of the legal right of a person to appeal from such revocations, suspensions or convictions, no such summary expulsion shall be effective until the order revoking or suspending license to practice medicine or the judgment convicting of a felony shall have become final and effective.

Sec. 17. *Effect of Suspension or Expulsion.* Whenever a member of any component county society is suspended or expelled from such society, he shall thereby also stand automatically suspended or expelled from the Michigan State Medical Society.

Sec. 18. *Construction.* Procedures under this chapter of the by-laws shall be as summary as may be reasonable. No investigation or proceeding hereunder shall be held invalid by reason of any non-prejudicial irregularity or for any error not resulting in a miscarriage of justice. The provisions of this chapter shall be liberally construed for the maintenance of the dignity, integrity, purposes and high principles of this society and its component county societies, and shall apply to all pending matters of misconduct as far as may be practicable and to all future matters, notwithstanding the alleged misconduct occurred prior to the adoption of the provisions of this chapter as part of the Bylaws of the Michigan State Medical Society.

CHAPTER 7—GRIEVANCES OF NON-MEMBERS-MEDIATION COMMITTEES

Sec. 1. *Policy.* One of the responsibilities of this Society and of its component county societies is to foster friendly and harmonious relations between the medical profession and the public. To implement such policy, there shall be established within each component county society a standing committee designated as the Mediation Committee. The councillors of the respective districts of the MSMS within which a component county society is situated shall be eligible to membership on such committees.

Sec. 2. *Purposes.* The purposes of such committee shall be:

(a) To afford the public an informal means of making known to the profession any alleged grievance arising from a physician-patient relationship.

(b) To resolve misunderstandings between physician and patient or between the component county society and the public.

(c) To reconcile differences between physician and patient by means of persuasion and explanation.

(d) To assist the ethics committee of its component

county society in maintaining among members high levels of professional deportment.

Sec. 3. *Duties and Powers.* It shall be the duty and authority of such committee to:

(a) Receive, hear, examine, investigate and consider complaints from members of the public arising from a physician-patient relationship.

(b) Adopt rules governing the performance of its functions; provided, such rules are not inconsistent with the applicable provisions of these bylaws.

(c) Invite response and co-operation from any member of its component county society involved in such complaint. The unexcusable failure of a member to respond to and co-operate with the committee shall be deemed misconduct for which discipline may be exacted in the manner provided in Chapter 6 of these bylaws.

(d) Initiate disciplinary measures in the manner provided in Chapter 6 of these by-laws whenever the committee has reasonable ground to believe that a member has been guilty of any conduct for which discipline is provided in these bylaws.

(e) Carry out to the best of its ability the declared purposes of such committee within the means hereby specified and limited.

Sec. 4. *Limitation of Powers.* As between the complainant and a member of the component county society, the powers of the committee shall be limited to efforts promoting understanding or agreement between the parties by means of conciliation. The committee shall not act as a trial body for the purpose of rendering decisions or awards as a substitute for the judgment of a court or any other similar purpose. The committee shall have no power to effect discipline or encroach on the function of the ethics committee of its component county society.

CHAPTER 8—GENERAL MEETINGS

Section 1. During each Annual Session the Society shall hold one or more General Meetings. The number and time of these General Meetings shall be determined by The Council of the Michigan State Medical Society. Such General Meetings shall be presided over by the President or in his absence the President-Elect or the Chairman of The Council. One such meeting shall be called "Officers Night." At this meeting called "Officers Night," the report of the House of Delegates shall be rendered.

Sec. 2. The following shall be the items of business:

1. Call to Order.
2. Announcements and reports of the House of Delegates.
3. Retiring President's annual address.
4. Induction into office of incoming President.
5. Introduction of newly elected officers and elected representatives.
6. Special addresses.
7. Resolutions and motions.

Sec. 3. Each registered member at an Annual Session shall have an equal right to participate in the deliberations of a General Meeting and each Active Member, and Life Member so registered shall have the right to vote on pending questions before the General Meeting.

Sec. 4. At any General Session or at any Section Meeting of this State Society, there may be recommended to the House of Delegates or to The Council the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public. Such investigations and reports shall not become official action or expression of this State Society until approved by the House of Delegates or The Council.

CHAPTER 9—HOUSE OF DELEGATES

Section 1. Composition—The House of Delegates shall be composed of Members elected by the Component County Societies. Reports having been properly filed with the Secretary of this Society, each component County Society shall be entitled to send to the House of Delegates each year one delegate for each fifty voting members, active, life and retired, and one delegate for each additional major fraction thereof. Any component County Society having less than fifty members shall be entitled to send one delegate.

Sec. 2. Officers of this State Society and members of The Council shall be ex-officio members of The House of Delegates, and, with the exception of the Speaker and Vice Speaker of The House of Delegates, shall be without power to vote in The House of Delegates. The Past President shall be a member at large of The House of Delegates during the first year of Past-Presidency with right to vote and hold office. All other Past-Presidents shall have the privilege of the floor, without the right to vote.

Sec. 3. The House of Delegates shall transact all of the business of this State Society not otherwise specifically provided for; it shall adopt rules and regulations for its own government and for the administration of the affairs of The Society; it shall provide for the organization of Councilor Districts.

Section 4. The House of Delegates shall meet annually at the time and place of the meeting of this State Society as a whole, as when it meets in General Session, and may hold such number of meetings as the House may determine or its business require, recessing from day to day as may be necessary to complete its business and specifying its own time for the holding of its meetings. The House of Delegates may also be called into session at any time by the Speaker upon a two-thirds vote of The Council, or on petition of twenty-five per cent of the delegates. The purpose of such special sessions shall be stated in the notice to call.

Sec. 5. A Delegate must have been a qualified member of this State Society for at least two years preceding election.

Sec. 6. A Delegate once seated shall remain a Delegate throughout the entire session and for one year thereafter until the next Session of this House of Delegates, and his place shall not be taken by any other Delegate or Alternate, provided that in case of emergency the House of Delegates may seat a duly accredited Alternate from his component County Society. Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved.

Sec. 7. The Secretary of component County Societies shall certify to the Secretary of this State Society the names of Delegates and Alternates who shall represent them at any Annual or Special Session. Each component County Society shall elect Alternate Delegates in equal number to the number of Delegates and designate their seniority.

Sec. 8. A quorum of the House of Delegates shall be constituted by not less than 40 per cent of the accredited Delegates, providing that a majority of such quorum shall not come from any one component County Society.

Sec. 9. The officers of the House of Delegates shall

be a Speaker and Vice Speaker. The Secretary of this State Society, elected by The Council, shall be the Secretary of the House of Delegates. The Speaker and Vice Speaker shall be elected by the House of Delegates at the Annual Session. The Speaker of the House of Delegates shall be a member of The Council and of its Executive Committee with right to vote.

Sec. 10. (a) The House of Delegates is the legislative body of this State Society, and shall have authority to adopt and institute such methods and measures as it may deem most sufficient for the upbuilding and establishing of the interest of the profession in Michigan.

(b) It shall concern itself with and advise as to the interests of the profession and of the public in those matters of legislation pertaining to medical education, medical registration, medical laws and public health.

(c) It shall be active in the education of the public in regard to medical research and scientific medicine.

(d) Delegates and Alternate Delegates to the American Medical Association shall be elected in accordance with the regulations of that parent organization and as hereinafter provided. They shall hold office for two years.

At each annual election, candidates for Delegates to the House of Delegates of the American Medical Association shall be nominated in number equal to or greater than the number to be elected that year. Election shall be by ballot. The required number of high candidates shall be declared elected.

In case of a tie vote of high candidates, the winner, or winners, shall be decided by drawing lots; supervised by the Speaker of the House of Delegates; provided, however, that any candidate thus tied shall have the right to a decision by ballot if he requests same.

The number of Alternate Delegates shall equal the number of Delegates. They shall be elected in exactly the same manner after all Delegates have been elected.

Alternate Delegates shall have relative seniority according to the respective number of votes received by them, and such seniority shall be designated at the time of election. Alternate Delegates serving their second year shall hold seniority over those Alternate Delegates serving their first year in office.

Any vacancies caused by failure or inability of any Delegates to attend shall be assigned to Alternate Delegates in order of their seniority as defined in this section.

(e) It shall have the authority to appoint committees, standing or special, from among its members or other doctors not members of the House of Delegates. Such committees will report to the House of Delegates and their members may participate in the debate upon their committees' report, regardless of membership in the House of Delegates.

(f) It shall approve each action and resolution in the name of this State Society before the same shall become effective. Provided, that in the interim, in the presence of necessity for prompt action, The Council or the Executive Committee of The Council is empowered to act on behalf of this State Society.

(g) It shall elect the Councilors upon the nomination of the Delegates of the Councilor District whose Councilor's term expires, as hereinafter provided.

Component county societies of Councilor Districts shall be notified in writing by the Secretary of the State Society 60 days in advance of the annual session when a Councilor is to be elected from their District at the expiration of the usual term.

If a vacancy in The Council occurs during an annual session of the Michigan State Medical Society the delegates of the component county societies will be given time in which to conduct a caucus in order to consider nomination(s) for the vacancy.

(h) The House of Delegates shall provide for the division of the scientific work of the Society into appropriate sections adding new and discontinuing old sections. It shall prescribe the rules governing the meetings of these sections and the election of officers.

(i) It shall present a summary of its proceedings at a General Meeting of the Society and publish its minutes in The Journal of the Michigan State Medical Society.

(j) It may have the following reference committees, together with Tellers and Sergeant-at-Arms, appointed by the Speaker of the House and approved by the House of Delegates, and such other reference committees as may be necessary from time to time:

1. Credentials.
2. Reports of Council.
3. Reports of Officers.
4. Reports of Standing Committees.
5. Reports of Special Committees.
6. Constitution and Bylaws
7. Resolutions.
8. Rules and Order of Business.
9. Legislation and Public Relations.
10. Hygiene and Public Health.
11. Executive Session.
12. Medical Service and Prepayment Insurance.
13. Emergency Medical Service.
14. Miscellaneous Business:
    Tellers
    Sergeant-at-Arms

(k) No new business shall be introduced in the last meeting of the House of Delegates without unanimous consent of the Delegates except when presented by The Council. All new business so presented shall require three-fourths affirmative vote for adoption.

(l) Election of officers shall be held at the last meeting of the House of Delegates at the Annual Session. Each nomination shall be made from the floor of the House. In the event of having only one nominee, the candidate may be elected by a viva voce vote. Members elected to office shall take office with the induction of the Incoming President, as provided in this Constitution and Bylaws.

(m) Each resolution introduced into the House of Delegates shall be in writing and presented in triplicate to the Secretary, immediately after the Delegate has read the same, and shall be referred to the proper reference committee by the Speaker before action thereon is taken.

(n) Robert's Rules of Order, when not in conflict with this Constitution and Bylaws, shall govern the parliamentary proceedings of the House of Delegates.

CHAPTER 10—THE COUNCIL

Section 1. The Council is the Executive Body of this State Society. It shall determine its own time and place of meeting. It shall hold an Annual Meeting at which

time it shall elect to serve for one year its Chairman, Vice Chairman, a Secretary, Chairman of the Finance Committee, Chairman of the County Societies Committee, and Chairman of the Publication Committee; these with the President, the President-Elect, the Speaker and Vice Speaker of the House of Delegates shall constitute the Executive Committee of The Council.

Sec. 2. Each Councilor shall be the organizer, peace maker and censor for his District. He shall visit each component County Society in his District at least once a year and keep in touch with the activities of the societies constituting his District. He shall make such reports as the Chairman of The Council shall request concerning the condition of the profession in that District.

Sec. 3. Upon written complaint of at least half of the Delegates of the Councilor District involved, presented to the House of Delegates, in regular or special session stating that the Councilor of said District has been remiss in his duties as prescribed above, and has been notified a month previously of this proposed action, the Speaker of the House shall bring the matter before the House of Delegates for consideration. On two-thirds vote of the House of Delegates this office shall be declared vacant and a successor elected.

Sec. 4. It shall make careful inquiry into the condition of the profession in each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such component County Societies as already exist. It shall especially and systematically endeavor to promote friendly intercourse between Doctors of Medicine in the same locality. It shall make every effort to bring each reputable Doctor of Medicine in the State under the Society's influence.

Sec. 5. It shall, upon application, provide and issue charters to component County Societies organized in conformity with this Constitution and By-Laws. It shall revoke such charters when deemed necessary, as provided in this Constitution and By-Laws.

Sec. 6. The Council shall direct and control the publication of The Journal of the Michigan State Medical Society.

Sec. 7. The Council shall elect an Editor of The Journal of the Michigan State Medical Society, and a Treasurer at its annual meeting. They shall take office immediately and serve for a term of one year, or until their successors are elected and have taken office.

Sec. 8. The funds of the Society shall be disbursed only by order or action of The Council. This authority may be delegated to the Executive Committee of The Council by The Council.

Sec. 9. Funds of the Society for investment shall be delivered to the custody of the Treasurer by the Secretary.

Sec. 10. The Council shall provide such headquarters for The Society as may be required to conduct its business properly.

Sec. 11. The Council shall render an Annual Report to the House of Delegates.

Sec. 12. The following County Societies shall constitute the Councilor Districts of the State. Wayne County shall constitute four Councilor Districts without permanent set boundaries within that County.

First District—Wayne

Second District—Clinton, Eaton, Hillsdale, Ingham. Jackson

Third District—Branch, Calhoun, St. Joseph

Fourth District—Allegan, Berrien, Cass, Kalamazoo, Van Buren

Fifth District—Barry, Ionia-Montcalm, Kent, Ottawa

Sixth District—Genesee, Shiawassee

Seventh District—Huron, Sanilac, Lapeer, St. Clair

Eighth District—Gratiot-Isabella-Clare, Midland, Saginaw, Tuscola

Ninth District—Grand Traverse-Leelanau-Benzie, Manistee, Northern Michigan (Antrim, Charlevoix, Cheboygan and Emmet, combined), Wexford-Missaukee

Tenth District—Alpena-Alcona-Presque Isle, Bay-Arenac-Iosco, North Central Counties (Otsego, Montmorency, Crawford, Oscoda, Roscommon, Ogemaw, Gladwin and Kalkaska, combined)

Eleventh District—Mason, Mecosta-Osceola-Lake, Muskegon, Newaygo, Oceana

Twelfth District — Chippewa-Mackinac, Delta-Schoolcraft, Luce, Marquette-Alger

Thirteenth District—Dickinson-Iron, Gogebic, Houghton-Baraga-Keweenaw, Menominee, Ontonagon

Fourteenth District—Lenawee, Livingston, Monroe, Washtenaw

Fifteenth District—Macomb, Oakland

Sixteenth District—Wayne

Seventeenth District—Wayne

Eighteenth District—Wayne

CHAPTER 11—STANDING COMMITTEES

Section 1. The following Standing Committees shall be appointed by the President with the advice of The Council:

(a) Committee on Postgraduate Medical Education

(b) Committee on Preventive Medicine and its Sub-Committees

(c) Committee on Public Relations and its Sub-Committees

(d) Committee on Ethics

(e) Committee on Legislation

(f) Committee on Mediation

Sec. 2. The Committee on Postgraduate Medical Education shall consist of a Chairman and twelve members, four of whom shall be appointed each year to serve for a three-year term.

The duty of this committee shall be to supervise for the

Michigan State Medical Society all postgraduate medical training in the State and, with the approval of the Executive Committee of The Council, make any changes, additions or discontinuances of present programs and initiate such new programs as they deem advisable.

Sec. 3. Committee on Preventive Medicine shall consist of its Chairman, the State Health Commissioner, and Chairmen of the following committees:

Committee on Rheumatic Fever Control

Committee on Cancer Control

Committee on Maternal Health

Committee on Venereal Disease Control

Committee on Tuberculosis Control

Committee on Industrial Health

Committee on Mental Health

Committee on Child Welfare

Committee on Geriatrics

Committee on Postgraduate Medical Education

Such other committees as may, from time to time, be appointed to study and develop programs dealing with specific diseases.

The duty of this committee shall be to collect, analyze and distribute information on preventive medicine, and to advise medical and other groups or individuals concerning problems in preventive medicine and public health.

Sec. 4. The Committee on Public Relations shall be appointed by the President. It shall be the duty of this committee: (a) to integrate and publicize all approved plans and projects emanating from The Council, the Executive Committee, and other Standing and Special Committees of the Michigan State Medical Society; (b) to consider all plans and projects, and make suggestions and recommendations for improving or changing such plans for integration and publicizing; (c) to develop further plans for better physician-public contacts. The President shall appoint such Sub-Committees of this committee as are required in the execution of its work.

Sec. 5. The Committee on Ethics shall consist of eight members appointed by the President with the advice of The Council, each member to serve for a four-year term, so staggered that two members are selected annually. In case a vacancy occurs before the expiration of a member's term, the President shall appoint a successor to serve the unexpired portion of the term.

The Committee shall render advisory opinions on questions of ethics submitted to it by The Council.

Sec. 6. The Committee on Legislation shall consist of a Chairman, the President-Elect of this State Medical Society and the Chairman of The Council of this State Medical Society and members to be appointed by the President.

The Committee on Legislation shall utilize every organized influence of the profession for the promoting of such legislation as will be for the best interests of the public's health and that of scientific medicine. It shall work under the direction of the House of Delegates or The Council when the House of Delegates is not in session. No bill or proposed law or amendment shall be delivered to any member of The Michigan State Legislature for introduction in the name of this State Society or by any of its committees until such proposed legislations shall have been endorsed and approved by The Council. (Provided this latter authority may be delegated to the Executive Committee of The Council by The Council.)

It shall submit an annual report with recommendations to the House of Delegates.

Sec. 7. The Committee on Mediation shall be comprised of not more than seven members appointed by the president with the advice of The Council for terms so fixed that no more than three of them expire during the same year. It shall be the function of the committee (a) to receive, hear, examine, investigate and consider written complaints affecting substantial segments of the public arising from the relationship of the medical profession with such segments of the public of this state; (b) to reconcile differences between the profession and the affected segments of the public by means of persuasion and explanation; and (c) to propose and suggest rules of appropriate procedures for use by mediation committees of component county societies.

CHAPTER 12—OFFICERS

Section 1. Officers shall be installed at the General Meeting at which the reports of the House of Delegates are received. They shall serve until the next Annual Session, provided that Councilors shall serve for five years, and provided further that not more than four Councilor terms shall expire normally at any Annual Session; provided further that Delegates to the American Medical Association shall serve for two years; provided further that not more than three Delegates to the American Medical Association shall be elected in any one year.

Sec. 2. Officers shall serve until their successors are elected and inducted into office.

Sec. 3. At the Annual Session of this State Society, next following his election. The President-Elect shall be installed into and assume the office of the President. He shall serve until his successor takes office. The assumption of office shall occur in a General Session of the Society as a whole, at which the report of the House of Delegates is received. If no General Meeting is held at the Annual Session, the induction into office of the Incoming President and the newly elected officers and representative officials shall be in the last meeting of the Annual Session of the House of Delegates.

Sec. 4. The President shall preside at the General Meeting of the Society at which the reports of the House of Delegates are received, and shall fill vacancies in office and committees with the advice of The Council, unless otherwise provided for; he shall appoint the members of each committee not otherwise provided for; he shall deliver the President's address; he shall have a voice in the deliberations of the House of Delegates and he shall be an ex-officio member of The Council with the right to vote.

Sec. 5. The President-Elect shall be a member of The Council and the Executive Committee of The Council ex officio, and shall have the right to vote, and shall act for the President in his absence or disability. If the office of President shall become vacant, the President-Elect shall succeed to the presidency. If the office of President shall again become vacant, The Council, at a Special Session, shall elect a President for the unexpired term.

Sec. 6. The Treasurer shall be the custodian of all the invested funds and the securities of the Society. He

shall be accountable through The Council to the Society. The Council shall cause an annual audit of his accounts to be made. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society.

Sec. 7. The Secretary shall be an active member of the Michigan State Medical Society and shall be paid a salary to be determined by The Council. He shall be the recording officer of the House of Delegates, The Council, Scientific Assembly and Annual Session. He shall be bonded in amount considered sufficient by The Council, the bond to be paid from the funds of the Michigan State Medical Society. He shall also discharge the following duties:

(a) Collect all annual membership dues, assessments, donations and such other monies as may be due to the Society; keep membership records and issue membership certificates.

(b) He shall make all required reports to the American Medical Association. He shall make a report of the proceedings of the House of Delegates to the Annual Meeting of this Society.

(c) He shall deposit all funds received in an approved depository and disburse them upon order of The Council. The Council may delegate the authority for disbursing funds to the Executive Committee of The Council. The Council shall cause an annual audit of his accounts by a certificed public accountant. He shall render a report to The Council reviewing the Society's activities and imparting recommendations for the advancement of the Society's interests at each meeting of The Council.

(d) Under the direction of The Council and with the advice of the Editor, he shall be the business manager of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY.

(e) He shall superintend all arrangements for the holding of each meeting in compliance with the Constitution and By-Laws and instructions of The Council or its Executive Committee.

(f) He shall send out all official notices of meetings, committee appointments, certificates of election to office and special duties of committees.

(g) He shall receive and transmit to the House of Delegates and to The Council each committee and officer's annual report.

(h) He shall institute and correlate each new activity under the supervision of The Council or its Executive Committee, and shall work on component County Society integration and furnish information to the public concerning health matters as directed by the President and The Council.

Sec. 8. There shall be an Executive Director, not necessarily a Doctor of Medicine or a member of the Michigan State Medical Society, who shall be appointed by The Council at its Annual Meeting and shall be remunerated by a salary which shall be fixed by The Council.

The Secretary shall, with the approval of The Council, assign duties to the Executive Director as he deems advisable.

Sec. 9. The Speaker of the House of Delegates shall preside at sessions of the House of Delegates. He shall, with the approval of the President, appoint all committees created by the House of Delegates, unless otherwise provided, and shall perform such duties as custom and parliamentary usage require. He shall be a member of The Council and of its Executive Committee with the power to vote.

Sec. 10. The Vice Speaker shall assume the Speaker's duties in the Speaker's absence in the House of Delegates and such other times as the House of Delegates or The Council shall determine.

CHAPTER 13—REFERENDUM

Section 1. At any General or Special Session of this State Society as a whole, as when it meets in General Session, it may by a two-thirds vote order a general referendum upon any question pertinent to the purposes and objects of the Michigan State Medical Society, organized medicine, or health of the public; provided, however, that a quorum at such General or Special Meeting shall consist of 300 members of the Michigan State Medical Society who are in good standing.

Sec. 2. The House of Delegates, by a majority vote may submit any question pertinent to the community and organized medicine to the membership of the Society for its vote, such vote to be taken by County Societies and certified by their secretaries to the State Society Secretary. Two-thirds of the vote cast shall be required to carry the question.

CHAPTER 14—SEAL

Section 1. The Society shall have a common SEAL. The power to change or renew the seal shall rest with The Council.

CHAPTER 15—EMERGENCY

Section 1. When prompt speech and action are imperative, authority to speak and act in the name of this State Society is vested in The Council or the Executive Committee of The Council of this State Society.

CHAPTER 16—DUES

Section 1. The Secretary of each component County Society shall collect and forward the dues and assessments to the Secretary of the Michigan State Medical Society on or before April first of each year.

Sec. 2. Any member in arrears after April 1 of each official year shall stand suspended until his name is properly recorded and his dues and assessments for the current year properly remitted, unless his name is to be submitted for election to one of the special memberships listed in Chapter 5 at the next succeeding Annual Session of the House of Delegates.

Sec. 3. Any component County Society which fails to make the reports required at least thirty days before the Annual Session of this State Society shall be held suspended and none of its members or Delegates shall be permitted to participate in any of the proceedings of the Society or of the House of Delegates.

CHAPTER 17—ELECTION—COMPONENT COUNTY SOCIETIES

Section 1. At the Annual Meeting of each component County Society or at a designated meeting of which ample notice has been given, each component County Society shall elect Delegates and Alternate Delegates in conformity with the provisions of this Constitution and By-Laws to represent the component County Society in the House of Delegates of this State Society. The Secretary of the component County Society shall immediately send a list of its Delegates and Alternate Delegates to the Secretary of this State Society.

A Delegate, or in his absence, the Alternate Delegate, becomes a member of the House of Delegates when properly registered and seated at the Annual or Special Session following his election by the component County Society.

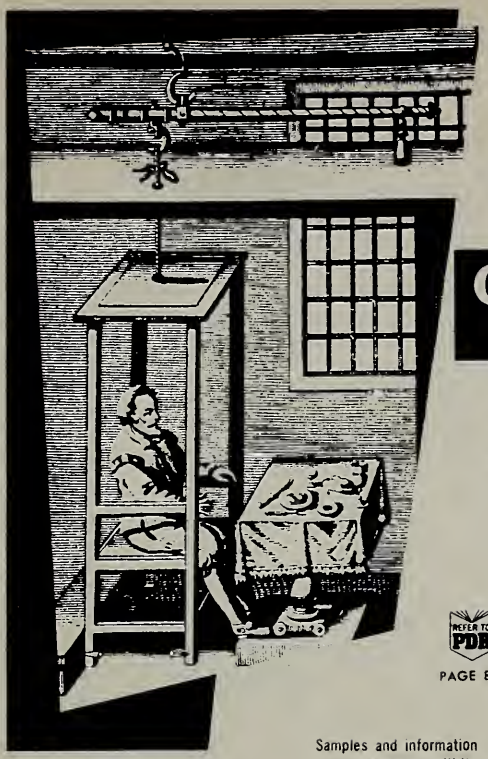
CHAPTER 18—DEFINITION OF SESSION AND MEETING

Section 1. A session shall mean all meetings at any one call.

Sec. 2. A meeting shall mean each separate convention at any one session.

CHAPTER 19—AMENDMENTS

Section 1. These Bylaws may be amended by a majority vote of the Delegates seated, after the proposed amendment is laid on the table for one meeting of the House of Delegates. These Bylaws become effective immediately upon adoption.



Sanctorius on his steelyard chair in the act of weighing himself for a metabolism experiment

in obesity

bring the . . . **MOOD UP**

. . . **WEIGHT DOWN**

keep **BLOOD PRESSURE LEVEL**

with

QUADAMINE

GRANUCAP®

Quadamine GRANUCAPS® provide uniform and sustained therapeutic response. No excitation or sedation. Elevates the mood, protects against nutritional deficiencies, promotes activity and depresses the urge to eat.

Each GRANUCAP® (Sustained release) capsule contains:

Dextro Amphetamine Sulfate	15 mg.	Vitamin C	30.0 mg.
Amobarbital	45 mg.	Ferrous Sulfate	20.0 mg.
Vitamin A	6,600 Units	Cobalt Sulfate	0.49 mg.
Vitamin D	400 Units	Copper Sulfate	2.8 mg.
Vitamin B-1	1.6 mg.	Sodium Molybdate	0.45 mg.
Vitamin B-2	2.5 mg.	Zinc Sulfate	3.9 mg.
Niacinamide	15.5 mg.	Potassium Iodide	0.13 mg.

REFER TO PDR PAGE 826

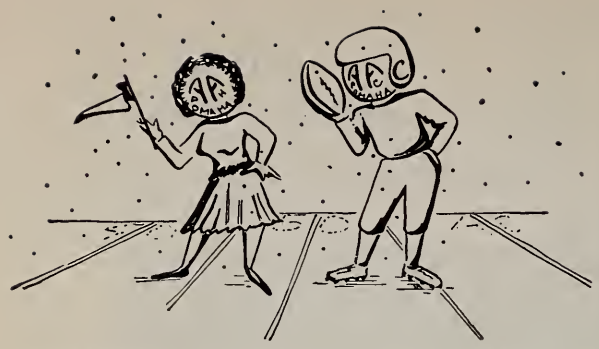
Samples and information on request. Write or ask your TUTAG representative

TUTAG

S. J. TUTAG & COMPANY

DETROIT 34, MICHIGAN

SPECIAL ADDRESSES OR TELEPHONE NUMBERS



Protection against loss of income from accident and sickness as well as hospital expense benefits for you and all your eligible dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902
Handsome Professional Appointment Book sent to you FREE upon request.

Invest in

U. S.

Government

Bonds

Dear Doctor:

If your name and address are not listed in this Directory of Members, please contact your County Society secretary to confirm your current membership status.

If your name and address are incorrectly listed, please inform the Michigan State Medical Society, P.O. Box 539, Lansing 3, Michigan, as to how you wish your name recorded.

Plainwell Sanitarium
PLAINWELL, MICHIGAN
Member American Hospital Association
EDWIN M. WILLIAMSON, M.D.
Psychiatrist-in-Chief
Professional care for the nervous and mentally ill.
Telephone MUrray 5-8441



Restful Six-acre Estate Overlooking the Kalamazoo River

60-739

Michigan state medical society. Journal.
v.58, 1959.

RETURN THIS BOOK ON OR BEFORE LAST DATE STAMPED

FEB 7 '6[illegible]
MAY 1 9 '[illegible]
OCT 1 8 '[illegible]
Apr 10 6 v